

Effects of Federal Tax Policy on Agriculture. By Ron Durst and James Monke. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture, Agricultural Economic Report No. 800.

Abstract

This report analyzes the effects of the current Federal tax code on farming and evaluates tax proposals to assist beginning farmers. Investment, management, and production decisions in agriculture continue to be influenced by Federal tax laws. Farmers continue to benefit from both Federal income and estate tax policies targeted to agriculture. These provisions exert upward pressure on farmland values and help support ongoing trends that increase the number of very small and large farms. However, the influence of the current tax structure with lower marginal tax rates and a broader income base is less than in earlier decades and may be small relative to government farm programs. Tax proposals to assist beginning farmers would likely increase the availability of land for lease or purchase, but would do little to make land more affordable.

Keywords: Federal tax policy, income tax, social security tax, structure, small farms, estate and gift tax, capital gains, farm losses

Disclaimer: Readers should not construe information in this report as advice given by the U.S. Department of Agriculture but should consult with their own attorneys or the Internal Revenue Service for tax advice.

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Summary

Changes to the Federal income tax structure over the last two decades have resulted in a broader tax base and lower marginal income tax rates with fewer opportunities to shelter income through exclusions, deductions, and credits. Despite large increases in the amount of property that can be transferred free of tax, Federal estate and gift taxes are of continuing concern to the farm community. Social security and self-employment taxes, however, impose a much greater burden and play a greater role in investment and management decisions due to sharp increases in their tax rates and the amount of income subject to such taxes.

In 1998, the U.S. Department of Agriculture's (USDA) National Commission on Small Farms recommended that USDA evaluate the effects of the tax code on farming and of various proposed changes to such Federal policies to aid beginning farmers. This report is the result of that evaluation.

The authors adopted the farm typology developed by USDA's Economic Research Service (ERS) to differentiate several types of small farms – farms with sales under \$250,000, as defined by the Commission. The Internal Revenue Service (IRS) provided special data tabulations using the ERS typology for the study of the effects of the Federal income and social security taxes. Estimates of estate tax burdens and effects were based on USDA farm surveys.

The most important Federal taxes for farmers are the income tax, the self-employment tax, and the estate and gift tax. The current tax system provides favorable treatment to farmers, both through general tax provisions available to all taxpayers and from provisions specifically targeted to farmers. Large farms with high farm income and very small farms with high levels of off-farm income benefit most from many of these provisions. While the Federal income tax has become more progressive through the expanded earned income tax credit and new higher marginal tax brackets, overall progressivity continues to be reduced by social security taxes.

Tax policies create financial incentives to engage in tax-favored activities. In farming, tax policies reinforce other factors such as technological change and economies of size that have contributed to an increasing number of large farms. Tax benefits generally accrue to those with higher incomes – farm or nonfarm. Although very small farms do not generate enough farm income to support a family, most small farms benefit from farm losses for tax purposes because these losses reduce taxes on nonfarm income.

At the same time, many full-time farmers do not generate enough taxable income – either farm or nonfarm – to fully utilize available tax benefits. Estate tax rules encourage farmers to hold land until death and allow most farm estates – except for the very largest – to be transferred free of tax. Across the farming sector, Federal tax policies affect farmland prices, the cost of capital relative to labor, farm size and organizational structure, farm management practices, and product supply and prices.

The most significant effects of current Federal income, estate, and social security tax policies include the following:

- Exert upward pressure on farmland prices through preferential treatment of capital gains and estate taxes that increase the demand for and reduce the supply of land on the market.
- Support pre-existing trends in the increasing share of very small and very large farms.
 - Large, profitable farms benefit from tax preferences and deductions.
 - Small, lifestyle (hobby) farms use farm losses for tax purposes to offset non-farm income.
- Help established farmers or nonfarm investors outbid beginning farmers for land.
- Contribute to greater farm output and lower commodity prices resulting from more intensive use of resources.
- Favor capital investment over labor.
- Encourage environmentally friendly land use because of targeted tax incentives for conservation and land preservation activities and reduced tax benefits for harmful practices.

Effects of Federal Tax Policy on Agriculture

Ron Durst and James Monke

Introduction

Federal tax policies can have important effects on the number and size of farms, the organizational structure, and the amount and relative mix of land, labor, and capital inputs. The most important Federal taxes for farmers are the income tax, the self-employment tax, and the estate and gift tax. In 1996, the most recent year for which complete data are available, farmers paid about \$19.2 billion in Federal income taxes on their farm and off-farm income. They also paid \$1.8 billion in self-employment taxes. In contrast, Federal estate and gift taxes were relatively small with taxes on farm estates estimated at only about \$735 million.

While the Federal income tax imposes the largest tax burden on the broadest group of farmers in the aggregate, the relative importance of the various taxes varies for the individual farmer with the size and other aspects of the farm business.

In January 1998, the U.S. Department of Agriculture's (USDA) National Commission on Small Farms – a 30-member committee appointed by former Secretary of Agriculture Dan Glickman – released a report addressing the need for action to help small farms survive and remain competitive. In the report, the Commission identified tax policy as a contributing factor to the structure of agriculture and suggested that many tax policies favor large farms over small farms. As one of many recommendations in the report, the Commission requested that the Economic Research Service (ERS) coordinate a study to review the effects of the tax code on farming and how the tax code affects entry and exits from farming (USDA, NCSF Recommendation 5.7, p. 94). To help beginning farmers in particular, the Commission proposed (1) an exemption for the first \$10,000 of income to a landlord from leasing farmland or property to a beginning farmer and (2) a revision of the depreciation recapture rules for a retiring farmer who sells equipment under an installment sale to a beginning farmer.

This report discusses the most important features of Federal tax law and how they affect agriculture. It also assesses the two tax recommendations proposed by the Commission, as well as another tax proposal regarding farm savings accounts that Congress has considered as an option to help farmers manage income variability. The report builds upon the Department's last comprehensive overview of the effects of Federal tax policy on farmers (Davenport, Boehlje, and Martin) that emerged from a 1979 initiative by former Secretary of Agriculture Bob Bergland to study the structure of agriculture.

Federal Taxes and Farmers

In the 1990's, the Federal income tax changed dramatically. While top marginal income tax rates increased, both individual and business taxpayers were provided several new or expanded tax credits and deductions. These include child and education tax credits, an expanded earned income tax credit, reduced capital gains taxation, and targeted tax relief for farmers, including income averaging and increased deductions for self-employed health insurance costs. The net effect is a reduced Federal income tax burden for most farmers.

The self-employment tax paid on earned income from business activities is comparable to the employees' and employers' share of the social security payroll tax. The amount of income subject to tax and the tax rates for the self-employment tax have increased over the past two decades, increasing the burden of this tax relative to the income tax. Overall, income taxes exceed self-employment taxes, but for lower income farmers, the self-employment tax may be more important.

Although the Federal estate tax represents a very small share of all Federal taxes paid by farmers and most farmers or their heirs never pay such taxes, the impact of Federal estate and gift taxes on the ability to transfer the family farm to the next generation has been a major concern of farmers for many years. The number of

farms subject to the Federal estate tax has increased in recent years, but Federal estate and gift taxes have had little effect on the ability of small family farms to transfer their farms to the next generation. Nevertheless, Federal estate tax provisions contained in the Taxpayer Relief Act of 1997 provide additional reductions in Federal estate taxes for farmers and other small business owners, making it easier for farmers to transfer their family farm business across generations.

Farm Typology and Data

The National Commission on Small Farms established general criteria to define small farms. The cutoff between large and small farms was set at \$250,000 in gross sales. The Commission's intention was to "generally describe the farms that ... should be given priority consideration by USDA, with special emphasis on those with the greatest need to improve their net farm incomes." The result was a definition that classifies 94 percent of all U.S. farms as small farms.

A broad definition that includes so many farms may be further refined for policy discussions. Building on the Commission's definition, ERS developed a new farm typology to divide small farms into mutually exclusive, more homogeneous groups based on family, business, and occupational characteristics. The four groups are (1) limited-resource farms, (2) retirement farms, (3) lifestyle/other farms, and (4) primary occupation farms (USDA-ERS). The limited-resource group identifies farmers with low sales, income, and assets, regardless of their major occupation, and is similar to definitions used by USDA's Risk Management Agency and Natural Resources Conservation Service. Identifying this group is critical because agencies may need to develop special programs to serve limited-resource farmers. The other three groups are based on the major occupation of farmers who do not operate limited-resource farms – the occupation at which they spend more than 50 percent of their work time. This farm typology was developed primarily to be applied to the Agricultural Resource Management Study (ARMS) conducted by

Table 1—Criteria for farm typologies used with IRS and USDA data

Farm type	IRS tax file data	USDA Agricultural Resource Management Study (ARMS)
Family farm	A tax return with schedule F attached; that is, a farm sole proprietor for tax purposes.	Farm proprietorships, partnerships, and family corporations. Produce \$1,000 of farm products annually.
Small family farm	Farm sales < \$250,000.	Farm sales < \$250,000.
• Limited-resource	Farm sales < \$100,000 and household income < \$10,000.	Farm sales < \$100,000, farm assets < \$150,000, and household income < \$20,000.
• Retirement	Social security benefits > \$0 and farm sales < \$50,000 – regardless of age of primary taxpayer – but excluding returns when only the secondary taxpayer is over age 65.	Self-identified as retired, excluding those already identified as limited-resource.
• Primary occupation	Either combined farm income greater than nonfarm income, or farm sales > \$10,000 and nonfarm income < \$50,000.	Self-identified that farming was principal occupation, excluding those already identified as limited-resource.
• Lifestyle/other	A residual category for small family farms if not selected as a limited resource, retirement, or primary occupation farm.	Self-identified that principal occupation was not farming, excluding those already identified as limited-resource.
Large family farm	Farm sales > \$250,000.	Farm sales > \$250,000.

Note: **Household income** equals the sum of all income reported on IRS form 1040, including tax-exempt interest, social security, and pension benefits not subject to taxes, but excluding farm losses from schedule F. **Combined farm income** equals net profit or loss from schedule F, plus capital gains from the sale of business assets, plus farm rental income (crop-share only; cash rents are not listed separately for taxes). **Nonfarm income** equals household income minus combined farm income (after adjusting for schedule F losses not included in household income).

ERS and the National Agricultural Statistics Service, USDA. The annual ARMS collects financial, production, and marketing information from farmers, including the self-identified primary occupation variable which is heavily used in the farm typology.

ARMS data provide income statement and balance sheet information as well as information concerning the farm operator and household. However, tax rules such as cash accounting, capital expensing, and other deductions and tax credits frequently make farmers' taxable incomes in any given year dramatically different from the income measured by USDA to estimate financial performance (General Accounting Office). In addition, information on taxable income and many other income tax variables is not available from ARMS data.

Limited tax data are available from the Internal Revenue Service (IRS), which compiles an annual stratified probability sample of individual income tax returns that contains a large number of variables from many tax forms. IRS carefully protects the identity of individual taxpayers in the public use version by not including identification codes and by blurring other variables by averaging data with similar returns. In addition to the public use tax file, which contains separate tax records, IRS also compiles special tabulations for researchers who request information on variables that are excluded from the public use file. Within the entire annual database of about 100,000 observations representing over 118 million taxpayers, a subset of over 6,000 farm observations includes individual farmers and materially participating landlords who file schedule F, but excludes corporate farms and farm partnerships. This

Table 2—Comparison of the farm typology using ARMS and IRS data, 1996

Item	Small family farms					Large family farms	All farm proprietors
	Limited-resource	Retirement	Lifestyle/other	Primary occupation Farm sales (\$1,000)			
				<\$100	\$100-\$250		
	<i>Number</i>						
Farmers:							
IRS data	218,383	261,926	1,167,321	336,498	151,970	82,865	2,218,964
ARMS data	291,659	261,428	537,181	524,820	192,269	154,307	1,961,664
	<i>Percent</i>						
Share with sales under \$10,000:							
IRS data	51.9	69.8	86.6	2.6	0	0	59.3
ARMS data	87.6	78.6	74.3	42.4	0	0	55.2
	<i>Dollars</i>						
Average net farm income:							
IRS data	-730	783	-6,191	5,192	16,914	31,572	-111
ARMS data	d	d	-4,394	d	25,708	93,513	7,906
Average net income to household:							
IRS data ¹	-97	73,333	69,398	27,744	31,616	94,069	55,040
ARMS data	10,633	40,729	71,673	31,511	59,181	120,703	50,361
	<i>Percent</i>						
Share of net income to household from nonfarm source: ²							
IRS data	³	98.9	108.9	81.3	46.5	66.4	100.2
ARMS data	127.8	99.7	106.1	104.1	56.6	25.2	84.3

d = data suppressed because the relative standard error for the estimate exceeds 75 percent.

¹To be more comparable with ARMS data, includes both taxable and nontaxable sources of income reported on IRS form 1040, and allows farm losses to reduce net income.

²The percentage of income from nonfarm sources can be more than 100 percent if farm income is negative.

³Not logical to compute because net household income remains negative even though nonfarm income is positive.

Sources: IRS data compiled by USDA-ERS from special tabulations by Internal Revenue Service. ARMS data from USDA-ERS, pp. 141-43.

sample can be weighted to represent a population of about 2.2 million farm sole proprietors.

The IRS data do not allow an exact duplication of the farm typology designed for USDA data, primarily because the IRS data lack the self-identified primary occupation variable. To approximate the categories in the farm typology, different criteria were developed for IRS data. These criteria use various combinations of gross farm sales, household income, nonfarm income, and social security benefits (table 1).

With the exception of the lifestyle/other category, which contains nearly twice as many farms, the number of farms in each typology category from the IRS data is similar to the number from the ARMS data (table 2). The larger number of lifestyle/other farms reflects the fact that many households file schedule F for tax purposes but may not be considered farms under the ARMS requirement of at least \$1,000 in sales. Furthermore, 42 percent of farms (220,000 farms) in the

ARMS data with gross sales under \$10,000 identified farming as their primary occupation. Many of these farms reported farm losses for tax purposes and were classified as lifestyle/other farms because the IRS data do not contain the self-identified primary occupation variable.

Despite the noted difference between IRS and ARMS data, both reveal that more than half of farm proprietors have sales under \$10,000. Both databases also suggest that nonfarm income contributes a majority of income for farmers as a whole, and that nonfarm income is particularly important for limited-resource, retirement, lifestyle/other, and primary occupation farmers with sales under \$100,000. However, net farm income reported for tax purposes is about \$8,000 less, on average, than that measured by ARMS. As mentioned before, tax rules such as cash accounting, capital expensing, and other farm deductions contribute to a lower net income for tax purposes for farmers.

Federal Income Tax Policies

The Federal income tax is a progressive tax imposed on net income. It is collected annually and accounts for a substantial portion of Federal revenues. The Federal income tax has the greatest potential impact on investment, management, and production decisions in the agricultural sector.

The individual income tax is significantly more important than the corporate income tax for understanding how taxes affect most farmers. Sole proprietorships, partnerships, and subchapter S corporations are all taxed at the individual level. The most common form of farm organization is the sole proprietorship which, according to the 1997 *Census of Agriculture* (USDA-NASS), comprises 86 percent of all farms and 52 percent of total sales (table 3). Income from farm partnerships and subchapter S corporations is passed through to the individual partners or shareholders for taxation at the individual shareholder or partner level. Partnerships comprise 9 percent of farms and 18 percent of sales. Census data do not separate subchapter S corporations from other corporations. However, family-held corporations account for about 90 percent of all corporations. Most of these corporations are subchapter S corporations. These farms represent 2 percent to 3 percent of all farms and account for about 10 percent of sales. Therefore, more than 97 percent of all farms and about 80 percent of farm sales are taxed at the individual level. This chapter primarily focuses on the most significant features of the Federal individual income tax, and how they affect taxes paid by farmers.

Individual Tax Rates and Taxable Income

Under current law, there are five marginal income tax brackets on ordinary income: 15, 28, 31, 36, and 39.6

percent. The ordinary income tax rates are progressive, with higher marginal rates applying to higher amounts of taxable income.

Taxable income is computed by subtracting allowable adjustments, deductions, and personal exemptions from total income. Total income is the sum of wages and salaries, taxable interest and dividends, capital gains, net business income, rental income, taxable social security and retirement income, and other miscellaneous income. Business income from sole proprietorships and pass-through entities, including farms, is taxed on a net basis after subtracting allowable business expenses from gross business revenue. Important statutory adjustments for farmers include subtractions for half of the self-employment tax, contributions to tax-deferred personal retirement plans, and the self-employed health insurance deduction. The standard deduction or itemized deductions (such as medical and home mortgage interest expenses, State and local income taxes, property taxes, and charitable contributions) also reduce the amount of income subject to tax. Personal exemptions provide an additional allowance against taxable income for each person in the household. Table 4 summarizes the taxable income subject to each tax bracket, and the standard deduction and personal exemption amounts.

Most farmers, like the majority of other taxpayers, are taxed at the 15-percent marginal tax bracket. However, most of the tax collected is paid by those in higher tax brackets. Table 5 illustrates the distribution of marginal tax brackets and income taxes paid by farm sole proprietors and other taxpayers. In 1995, 53 percent of farm sole proprietors were in the 15-percent tax bracket, but they paid only 20 percent of the Federal income taxes paid by farmers. In contrast, the 5 percent of farmers in the top three tax brackets paid 54 percent of the taxes paid by farm sole proprietors. The distributions are

Table 3—Most farms are organized as sole proprietorships

Type of organization	Number	Total sales		Net income	
		<i>Million dollars</i>			
All farms ¹	1,911,859	196,865		42,557	
Sole proprietor	1,643,424	102,666		21,295	
Partnership	169,462	35,539		8,706	
Corporation ²	84,002	56,907		12,212	
Other ³	14,971	1,753		345	

¹Units selling \$1,000 or more of agricultural products per year.

²Includes family and nonfamily corporations, some of which may be subchapter S corporations.

³Includes cooperatives, estates and trusts, institutional, and other forms of ownership.

Source: USDA-NASS, 1997 *Census of Agriculture*, table 47.

Table 4—Federal income tax brackets, standard deduction, and exemption for 2001

Item	Filing status	
	Single	Married (joint)
	<i>Dollars</i>	
Lower bound of taxable income:		
15% tax bracket	0	0
28% tax bracket	27,050	45,200
31% tax bracket	65,550	109,250
36% tax bracket	136,750	166,450
39.6% tax bracket	297,300	297,300
Standard deduction	4,550	7,600
Personal exemption	2,900	2,900

Note: An individual's taxable income equals the sum of all income subject to taxation minus the sum of adjustments to income, the standard deduction or itemized deductions, and the personal exemption multiplied by the number of allowable exemptions. Amounts are indexed for inflation annually.

similar for nonfarm taxpayers as well, with the number of both farm and nonfarm businesses being skewed toward the extreme high- and low-tax brackets and the taxes paid being skewed toward the higher brackets.

Across the farm typology, 70 percent of Federal income taxes are paid by the 53 percent of farmers in the lifestyle/other category (table 6). This category also has the greatest proportion of small family farmers paying tax rates over the 15-percent bracket (fig. 1).

The Farm Income Tax Base

Numerous provisions of Federal income tax law allow taxpayers to reduce their tax liability if they undertake certain tax-favored activities. Many of these activities are unique to particular industries. Thus, most industries receive some level of preferential tax treatment. In general, income from farming is taxed more favorably than income from many other businesses. Federal tax incentives have encouraged greater investment in the productive capacity of certain types of farming than

Table 5—Most taxpayers are in lower brackets, but those in higher brackets pay most tax

The distribution for farm sole proprietors is skewed slightly toward the extremes

Item	Farm sole proprietors	Other nonfarm sole proprietors	All other individuals	All individual taxpayers
	<i>Number</i>			
Taxpayers ¹	2,244,021	18,859,895	100,114,417	118,218,333
	<i>Percent of taxpayers</i>			
Not taxable	24.1	23.0	19.5	20.1
15%	53.1	50.2	58.7	57.4
28%	18.2	20.9	18.9	19.1
31%	2.3	3.2	1.9	2.1
36%	1.3	1.7	.6	.8
39.6%	1.0	1.0	.4	.5
All brackets	100.0	100.0	100.0	100.0
	<i>Million dollars</i>			
Total Federal income tax paid ²	17,000	117,240	451,282	585,522
	<i>Percent of tax payments</i>			
15%	19.8	17.3	24.2	22.6
28%	25.7	29.6	37.7	35.8
31%	9.2	11.8	10.2	10.5
36%	9.2	12.3	7.6	8.6
39.6%	36.1	29.0	20.3	22.5
All brackets	100.0	100.0	100.0	100.0

¹Farm sole proprietors file IRS schedule F; other nonfarm sole proprietors file schedule C, but not schedule F; all other individual taxpayers file neither schedule C nor F.

²Total income tax after credits, excluding portions of the earned income credit that are refunded or used to offset other taxes.

Source: USDA-ERS estimates from 1995 IRS Individual Public Use Tax File.

would have been warranted without tax incentives. Tax preferences also cause some farm investors to alter management practices to maximize tax benefits, sometimes to the detriment of other economic considerations.

Farmers benefit from both general tax provisions available to all taxpayers and from provisions specifically designed for farmers. Some of the provisions that are responsible for this treatment include the current deductibility of certain capital costs, capital gains treatment of proceeds from the sale of farm assets for which development costs have been deducted against regular income, cash accounting, and farm income averaging. These and other provisions reduce the farm income tax base.

The favorable tax treatment for farm income is reflected in the size of farm profits and losses reported for income tax purposes. These tax preferences are

important reasons why net farm income reported to IRS is less than that estimated by USDA to measure farm performance (GAO). Overall, farm sole proprietors have reported a net taxable loss from farming activities since 1980 based on IRS form 1040, schedule F.

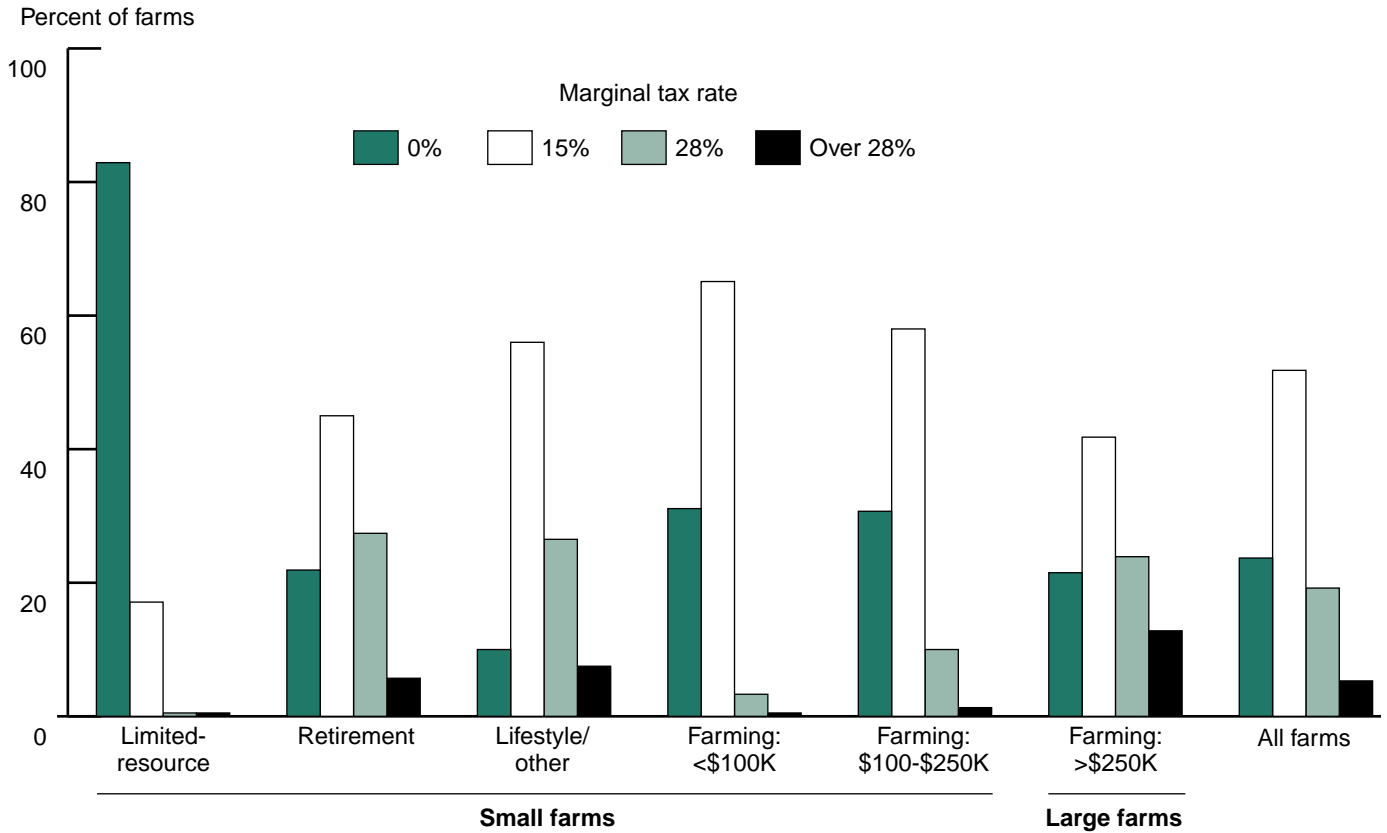
Aggregate annual net farm losses increased from 1990 to 1995, reversing a recovery that started in 1984 (fig. 2). The proportion of farm sole proprietors reporting a net farm loss on schedule F also has been increasing, with around 66 percent of farms reporting losses in 1996, compared with 56 percent in 1989. In 1996, farm sole proprietors reported over \$102 billion in gross farm business receipts for tax purposes but reported a net farm operating loss of \$7.1 billion. The net loss was the result of offsetting the \$8.9 billion in profits reported by about one-third of all farm sole proprietors and \$16 billion in losses reported by the remaining two-thirds (table 7).

Table 6—Distribution of Federal income taxes and marginal brackets by type of farm, 1996

Item	Small family farms				Large family farms	All farm proprietors	
	Limited-resource	Retirement	Lifestyle/other	Primary occupation Farm sales (\$1,000) <\$100 \$100-\$250			
	<i>Number</i>						
All farmers	218,383	261,926	1,167,321	336,498	151,970	82,865	2,218,964
	<i>Percent</i>						
Share across farm types	9.8	11.8	52.6	15.2	6.8	3.7	100.0
Share by bracket within group:							
Not taxable	82.9	21.9	10.0	31.2	30.7	21.5	23.7
15%	17.1	45.0	56.1	65.2	58.0	41.8	51.9
28%	0	27.4	26.5	3.3	10.0	23.9	19.2
31%	0	3.0	4.1	.1	1.1	7.5	2.9
36%	0	1.6	1.8	.1	.1	2.9	1.2
39.6%	0	1.1	1.6	.1	0	2.4	1.1
All brackets	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Thousand dollars</i>						
Federal income tax paid: ¹							
Total	7,736	2,789,597	13,560,209	865,727	466,087	1,560,277	19,249,632
	<i>Percent</i>						
Share across farm types	0	14.5	70.4	4.5	2.4	8.1	100.0
	<i>Dollars</i>						
Average	35	10,650	11,617	2,573	3,067	18,829	8,675

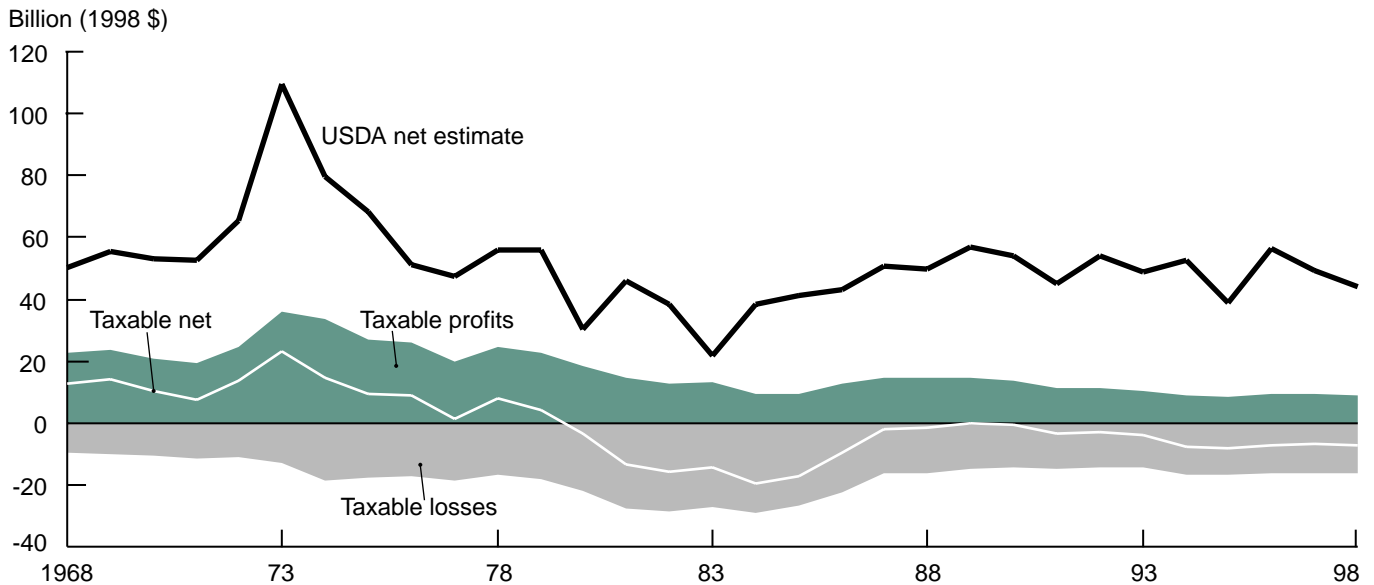
¹Total income tax after credits, excluding portions of the earned income credit that are refunded or used to offset other taxes.
Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

Figure 1
Distribution of marginal brackets, 1996



Source: USDA-ERS, based on IRS data.

Figure 2
Taxable net farm income on schedule F is lower and less variable than USDA's estimate



Source: USDA-ERS; tax data are compiled from IRS.

Many of these farm losses are reported by smaller farms in which the operator's primary source of income is an off-farm job or other nonfarm source. In fact, 75 percent of farm sole proprietors with farm business receipts below \$25,000 reported a farm loss for tax purposes, and the average loss reported was about \$8,100. These farm losses reduce taxes by offsetting income from nonfarm sources. These farms averaged over \$59,000 in off-farm income. In contrast, 62 percent of farms with farm business receipts over \$25,000 reported a farm profit, and the average profit was only about \$21,000. Thus, while many commercial-size farmers pay taxes on their farm income, farm sole pro-

prietors in the aggregate pay little in Federal income tax on farm income.

By farm typology, a majority of farmers report farm profits on schedule F in the limited-resource, primary occupation, and large family farm categories (fig. 3). However, aggregate net farm income on schedule F was positive only for primary occupation farmers with gross farm sales over \$50,000 – slightly broader than the two groups indicated in table 8, which include only primary occupation small farms with sales over \$100,000 and large family farms (fig. 4).

Table 7—Farm profits and losses reported for taxes by sole proprietors, 1965-98

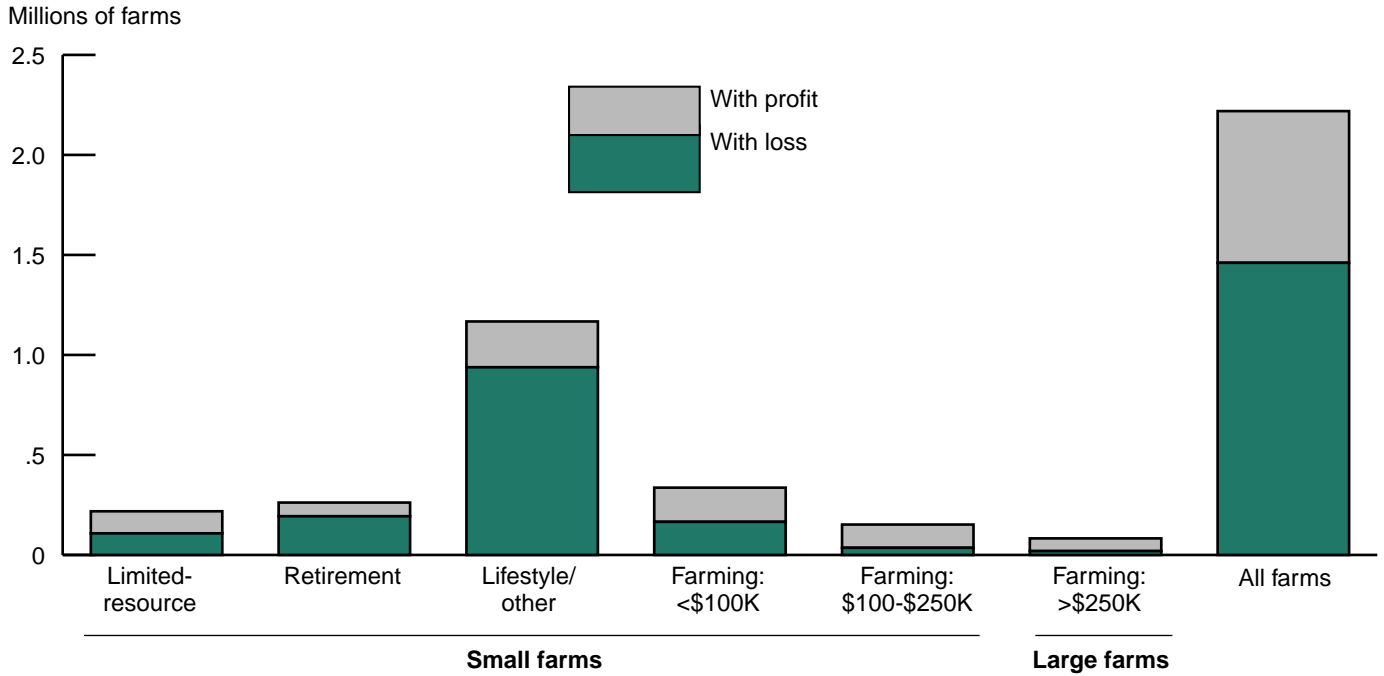
Year	Number of farm sole proprietors	Schedule F net income			Combined farm net income ¹		
		Net	Farms with loss		Net	Farms with loss	
			Number	Losses		Number	Losses
	1,000	\$million	1,000	\$million	\$million	1,000	\$million
1965	3,034	3,365	1,035	-1,852	na	na	na
1966	3,009	4,070	1,012	-1,915	na	na	na.
1967	3,012	3,353	1,125	-2,208	na	na	na
1968	3,033	3,127	1,182	-2,408	na	na	na
1969	3,092	3,578	1,155	-2,559	na	na	na
1970	3,026	2,789	1,234	-2,903	na	na	na
1971	2,775	2,188	1,290	-3,282	na	na	na
1972	2,791	4,106	1,172	-3,226	na	na	na
1973	2,866	7,228	1,219	-4,066	na	na	na
1974	2,804	4,996	1,434	-6,411	na	na	na
1975	2,755	3,563	1,415	-6,560	na	na	na
1976	2,819	3,456	1,477	-6,891	na	na	na
1977	2,487	504	1,314	-7,762	na	na	na
1978	2,705	3,565	1,386	-7,473	na	na	na
1979	2,605	2,124	1,361	-8,937	na	na	na
1980	2,608	-1,792	1,485	-11,751	na	na	na
1981	2,641	-7,812	1,657	-16,340	na	na	na
1982	2,689	-9,834	1,756	-17,828	na	na	na
1983	2,710	-9,294	1,742	-17,721	na	na	na
1984	2,694	-13,096	1,828	-19,434	na	na	na
1985	2,621	-12,005	1,730	-18,498	na	na	na
1986	2,533	-6,907	1,548	-15,902	na	na	na
1987	2,425	-1,421	1,366	-12,119	3,464	1,301	-10,934
1988	2,381	-1,175	1,375	-12,426	4,313	1,295	-11,119
1989	2,378	-210	1,332	-11,738	5,085	1,252	-10,495
1990	2,342	-411	1,325	-11,811	4,766	1,260	-10,792
1991	2,311	-3,070	1,359	-12,614	1,276	1,285	-11,346
1992	2,306	-2,620	1,392	-12,648	2,138	1,299	-11,411
1993	2,293	-3,680	1,373	-13,120	2,985	1,252	-11,353
1994	2,265	-7,335	1,485	-15,718	-853	1,389	-13,951
1995	2,244	-7,857	1,493	-16,032	-1,528	1,388	-14,330
1996	2,219	-7,112	1,461	-16,027	-247	na	na
1997	2,161	-6,847	1,439	-16,069	na	na	na
1998	2,092	-7,934	1,419	-16,743	na	na	na

na = Not available.

¹Schedule F net income plus capital gains from selling business assets and farm rental income.

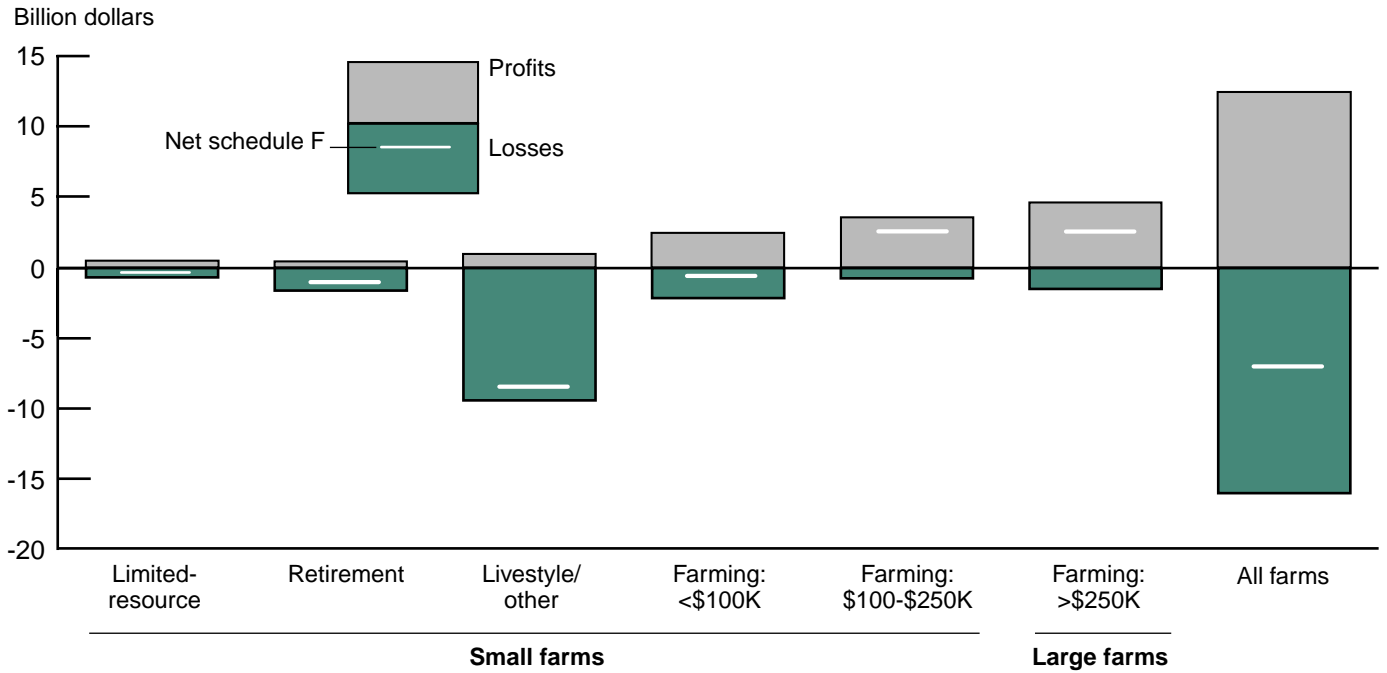
Source: 1965-86 from Long (p. 2); 1987-98 from USDA-ERS tables compiled from IRS data.

Figure 3
Number of farms with schedule F profits and losses, 1996



Source: USDA-ERS, based on IRS data.

Figure 4
Profits and losses on schedule F by farm type, 1996



Source: USDA-ERS, based on IRS data.

Table 8—Farm income reported for Federal income taxes by farm sole proprietors in 1996

Item	Small family farms				Large family farms	All farm proprietors	
	Limited-resource	Retirement	Lifestyle/ other	Primary occupation Farm sales (\$1,000) <\$100 \$100-\$250			
				<i>Number</i>			
Farmers ¹	218,383	261,926	1,167,321	336,498	151,970	82,865	2,218,964
				<i>Percent</i>			
Share across farm types	9.8	11.8	52.6	15.2	6.8	3.7	100.0
				<i>\$ 1,000</i>			
Schedule F income:							
Gross receipts ²	4,880,938	2,124,520	10,427,201	12,550,843	23,507,928	48,685,150	102,176,580
+ Program payments	242,497	161,492	668,529	764,664	1,415,352	1,619,994	4,872,528
- Purchased livestock ³	18,181	-141,618	331,965	158,535	1,087,215	9,257,218	10,711,495
= Gross farm income	5,105,254	2,427,630	10,763,765	13,156,972	23,836,065	41,047,926	96,337,613
Expenses:							
Depreciation ⁴	813,318	672,641	4,025,491	2,383,377	3,189,083	3,997,696	15,081,607
Mortgage, interest	438,217	194,809	1,833,096	1,170,983	1,833,607	2,710,899	8,181,611
Total expenses	5,426,513	3,726,907	19,502,838	13,539,736	22,021,309	39,232,296	103,449,598
Profits	338,896	301,989	681,002	1,752,605	2,542,569	3,298,150	8,915,212
				<i>Percent</i>			
Share with profit	50.6	26.1	19.6	50.8	76.5	76.6	34.2
				<i>\$1,000</i>			
Losses	-660,155	-1,601,266	-9,420,075	-2,135,369	-727,813	-1,482,520	-16,027,197
				<i>Percent</i>			
Share with loss	49.4	73.9	80.4	49.2	23.5	23.4	65.8
				<i>\$1,000</i>			
Net from schedule F	-321,259	-1,299,277	-8,739,073	-382,764	1,814,756	1,815,630	-7,111,985
+ Gain on business assets	156,800	1,271,273	1,399,832	1,946,386	727,702	748,670	6,250,661
+ Farm rental income ⁵	5,108 ⁶	233,130	112,715	183,420	27,926 ⁶	51,904	614,204
= Combined farm inc.	-159,352	205,126	-7,226,527	1,747,044	2,570,384	2,616,205	-247,121
				<i>Percent</i>			
Percent across farm types:							
Program payments	5.0	3.3	13.7	15.7	29.0	33.2	100.0
Adjusted gross income	5.3	2.5	11.2	13.7	24.7	42.6	100.0
Depreciation ⁴	5.4	4.5	26.7	15.8	21.1	26.5	100.0
Mortgage, interest	5.4	2.4	22.4	14.3	22.4	33.1	100.0
Total expenses	5.2	3.6	18.9	13.1	21.3	37.9	100.0
Profits	3.8	3.4	7.6	19.7	28.5	37.0	100.0
Losses	4.1	10.0	58.8	13.3	4.5	9.3	100.0

¹Includes farm sole proprietors, but excludes farms organized as partnerships or subchapter S corporations.

²Includes gross receipts from crop and livestock sales, taxable CCC loans, crop insurance proceeds, cooperative distributions, and custom hire. Excludes income from selling farm business assets such as breeding and dairy livestock, which are reported on form 4797, and government agricultural program payments.

³Includes the cost or basis of livestock and other items purchased for resale, such as feeder livestock.

⁴Includes depreciation and section 179 expensing deduction for farm machinery, equipment, and buildings.

⁵Includes only crop-share farm rental income. Cash rental income is not reported separately for tax purposes.

⁶*Italics* indicate the estimate should be used with caution because the sample contained 10 or fewer returns.

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

Since net farm profit or loss on schedule F does not include some farm income reported on other tax forms, a more complete measure of farm income adds capital gains from selling business assets (such as culled livestock and land) and farm rental income. For all sole proprietors, gains from selling business assets add \$6.25 billion, while farm rental income adds an additional \$600 million.¹ This combined measure of farm income reveals an aggregate taxable loss of \$247 million in 1996, the third consecutive loss in a new trend since the mid-1980's (table 7). Combined farm income for most farm types are made positive by adding these additional variables to schedule F income, but the schedule F losses reported by lifestyle/other and limited-resource farms are sufficient to make the aggregate combined farm income for all farm sole proprietors negative (table 8).

The Farm Household Income Tax Base

In 1996, farm sole proprietors paid \$19 billion in Federal income taxes on their farm and nonfarm incomes. Most of this amount was paid by farmers whose primary occupation was something other than farming and was therefore paid mostly on nonfarm income. IRS data indicate that a majority of farmers' incomes come from off-farm sources. This indication is similar to results from USDA surveys, but the divergence between farm and nonfarm income for all farm proprietors is greater in the tax data. The only farm types receiving more than a negligible portion of their income from farming were primary occupation small farms and large family farms. Only primary occupation farms with gross sales between \$100,000 and \$250,000 received a majority of their income from farming. All other farm types received a majority of their income from nonfarm sources (table 9).

Most of the nonfarm income comes from wages and salaries earned away from the farm by the farm operator or the operator's spouse. This is especially true for primary occupation farms and lifestyle/other farms that receive well over half of their nonfarm income from wages and salaries. Over 60 percent of primary occupation and lifestyle/other farms earn wage and salary income (table 10). Another important component is investment income which includes interest, dividends, capital gains, and rental property (other than gains from selling farm business assets or farm rental income).

¹Includes only crop share farm rental income. Cash rental income from farm property is not reported separately from other rental income for tax purposes.

Large family farms and retirement farms receive relatively more investment income than other types of farms and are more likely to report such income. Retirement farms receive nearly as much income from social security and pensions as from investments. Non-farm business enterprises contribute a sizeable amount of income for lifestyle/other farms, and lifestyle/other farms earn most of the nonfarm business income reported by all farm proprietors. Despite small amounts of nonfarm wages and investment income, limited-resource farms report significant losses to nonfarm businesses and to rental property (table 9). Because of these losses, limited-resource farms report only a small amount of net nonfarm income, not enough to offset their combined farm losses.

In addition to farm business deductions mentioned throughout this report, other deductions from household income include contributions to retirement accounts, expenses for self-employed health insurance and self-employment taxes, the standard or itemized deductions, and the personal exemption for each member of the household. Although relatively few farmers use retirement account deductions, such contributions are relatively more important for primary occupation farmers because they are less likely to have employer-sponsored plans at a nonfarm job.

Most farmers, like most nonfarm taxpayers, claim the standard deduction rather than itemize. Although about 30 percent of all farmers itemize their nonfarm deductions, only a negligible number of limited-resource farms itemize, and only about 16 percent of primary occupation small farms itemize. About 42 percent of lifestyle/other farm households itemize. The standard or itemized deduction and personal exemptions combine to reduce adjusted gross income (AGI) by about one-third, yielding \$81 billion of taxable income for farm sole proprietor households (table 9).

Capital Gains Taxes

Capital gains income is the profit (or loss) realized on the sale of assets held for investment. It is based on the difference between the asset's sale price and the purchase price adjusted for depreciation or improvements (the basis). Capital gains are generally not recognized for tax purposes until the taxpayer disposes of an asset. The income tax system has historically taxed capital gains at rates that are lower than taxes on ordinary income.

Table 9—Total income reported for Federal income taxes by farm sole proprietors, 1996

Item	Small family farms					Large family farms	All farm proprietors
	Limited-resource	Retirement	Lifestyle/ other	Primary occupation			
				<\$100	\$100-\$250		
				<i>Number</i>			
All farmers	218,383	261,926	1,167,321	336,498	151,970	82,865	2,218,964
				<i>\$1,000</i>			
Household income: ¹							
Wages and salaries	495,716	2,307,041	53,960,415	5,316,390	1,200,441	1,328,595	64,608,598
Interest income (total)	310,292	2,941,629	5,304,360	712,567	224,148	837,997	10,330,993
Dividends	61,993	1,168,483	2,411,889	99,405	102,852	474,910	4,319,531
Nonfarm business net	-140,694	491,355	5,011,164	432,494	136,561	178,808	6,109,687
Capital gains, losses	267,425	3,482,182	7,007,586	2,024,307	817,326	1,720,152	15,318,981
Gain on other property	-98,957	407,674	704,995	159,487	194,929	183,365	1,551,493
IRA distributed (taxed)	17,215	590,945	547,219	46,605	61,596	42,609	1,306,189
Pension, annuity (total)	83,597	3,702,891	4,867,831	445,856	80,639	141,331	9,322,145
Rent, royalty net income	-776,822	2,260,671	9,129,404	336,895	45,147	970,883	11,966,176
Farm profits	338,896	301,989	681,002	1,752,605	2,542,569	3,298,150	8,915,212
Social security (total)	56,574	3,113,574	216,919	77,415	108,306	73,997	3,646,783
Alimony, refund	23,765	40,658	587,352	67,065	17,986	26,780	763,608
Household income	639,000	20,809,092	90,430,136	11,471,091	5,532,500	9,277,577	138,159,396
Schedule F losses	-660,155	-1,601,266	-9,420,075	-2,135,369	-727,813	-1,482,520	-16,027,197
Net income to household	-21,155	19,207,826	81,010,061	9,335,722	4,804,687	7,795,057	122,132,199
Combined farm income ²	-159,352	205,126	-7,226,527	1,747,044	2,570,384	2,616,205	-247,121
Nonfarm income	138,196	19,002,701	88,236,586	7,588,679	2,234,303	5,178,853	122,379,320
				<i>Percent</i>			
Share of net income from nonfarm ³	4	98.9	108.9	81.3	46.5	66.4	100.2
				<i>\$1,000</i>			
Selected adjustments to income:							
IRA contributions (deduct)	7,538 ⁵	45,029	205,362	56,692	38,665	44,144	397,430
Keogh/SEP contribution	54 ⁵	19,958	200,240	5,736	50,913	79,894	356,798
Health insurance (self-employed)	18,159	25,773	88,601	53,260	70,743	40,176	296,712
Half of self-employment tax	23,493	51,706	348,738	136,051	179,508	178,067	917,561
Adjusted gross income	-1,402,236	15,265,584	75,652,141	7,717,435	3,667,700	5,532,557	106,433,180
Less deductions	1,412,522	2,931,234	13,519,710	2,473,396	1,107,595	1,250,253	22,694,710
Less exemptions	1,039,685	1,221,622	7,893,438	2,413,408	1,253,866	669,197	14,491,217
Taxable income ⁶	44,971	11,678,553	56,548,631	4,711,927	2,591,873	5,800,910	81,376,866

¹ Using data reported on form 1040, a broader measure of annual income than reported for taxes since it includes tax-exempt interest, pensions, annuities, and social security income. Does not include schedule F losses, which are added back to compute net income to household. Does not include "other income and losses," which is frequently negative because many farmers carry unused net operating losses from prior years forward into the tax year.

² Equals the sum of schedule F, capital gains from the sale of business assets, and farm rental income.

³ Net income to household from nonfarm sources can exceed 100 percent if combined farm income is negative.

⁴ Not logical to compute because net household income remains negative even though nonfarm income is positive.

⁵ *Italics* indicate the estimate should be used with caution because the sample contained 10 or fewer returns.

⁶ Because taxable income cannot be less than \$0, the aggregate amount exceeds adjusted gross income minus deductions and exemptions.

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

Table 10—Frequency that farmers report sources of income or deductions, 1996

Item	Small family farms			Primary occupation		Large family farms	All farm proprietors
	Limited-resource	Retirement	Lifestyle/ other	Farm sales (\$1,000)			
				<\$100	\$100-\$250		
				<i>Number</i>			
All farmers	218,383	261,926	1,167,321	336,498	151,970	82,865	2,218,964
				<i>Percent</i>			
Share of farmers with:							
Form 1040—							
Wages and salaries	37.1	38.6	86.7	69.5	59.9	62.7	70.8
Interest income (total)	68.5	95.7	81.9	78.9	88.9	91.1	82.6
Dividends	18.4	46.6	34.5	22.2	35.7	46.8	33.0
Nonfarm business net	22.2	17.6	28.7	23.6	22.2	19.1	25.2
Capital gains, losses	33.7	55.0	35.8	36.3	58.6	56.3	40.3
Gain on other property	14.7	14.7	14.9	23.1	34.0	40.9	18.4
IRA distributed (taxed)	3.7	26.4	4.5	2.0	3.5	2.5	6.5
Pension, annuity (total)	12.5	57.8	22.0	13.1	10.0	12.9	22.8
Rent, royalty net income	29.1	51.0	34.9	31.0	36.0	48.6	36.2
Social security (total)	4.8	100.0	1.2	2.8	6.7	6.2	14.0
IRA contributions (deductible)	1.8 ¹	6.2	6.8	6.2	11.1	17.3	6.9
Nondeductible ²	na	na	na	na	na	na	1.4
Keogh, self-employment pension contribution	0 ¹	1.4	1.8	.4 ¹	6.0	10.3	2.0
Self-employment health insurance	11.7	10.9	7.5	16.5	44.8	43.8	13.6
Half of self-employment tax	40.0	22.4	24.9	50.5	78.1	81.3	35.7
Standard deduction	67.0	69.8	56.7	75.9	71.6	58.5	63.3
Itemized deduction	3.5	28.0	41.6	16.6	16.2	28.2	30.2
Neither deduction ³	29.5	2.2	1.6	7.5	12.2	13.2	6.5
Schedule F—							
Program payments	38.4	29.1	20.3	46.9	76.9	83.3	33.4
Depreciation ⁴	69.6	67.8	74.6	91.3	97.6	98.5	78.3
Mortgage, interest	45.3	25.8	36.1	67.6	91.4	93.4	46.5
Gain on business assets	18.7	25.4	12.3	23.5	40.2	32.3	18.8
Farm rental income	1.2 ¹	7.5	2.0	2.3	.8 ¹	3.4	2.6
Type of tax return— ²							
Single	na	na	na	na	na	na	16.3
Married filing jointly	na	na	na	na	na	na	80.3
Other	na	na	na	na	na	na	3.4
Tax return prepared by— ²							
Taxpayer	na	na	na	na	na	na	15.0
Paid preparer	na	na	na	na	na	na	84.8
Other	na	na	na	na	na	na	.2

na=Not available.

¹*Italics* indicate that estimate should be used with caution because the sample contained 10 or fewer tax returns.

²Data are from 1995 IRS Public Use Tax File (farm typology not available) and have varied little in recent years.

³May not report any deduction if adjusted gross income is negative or if taxpayer can be claimed as a dependent on another return.

⁴Includes depreciation and section 179 expensing deduction for farm machinery, equipment, and buildings.

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

Because assets used in the trade or business to produce other output are eligible for capital gains treatment, capital gains are an important and frequent component of income for farmers. According to 1996 IRS tax data, about 40 percent of all farm sole proprietors reported a capital gain (table 10). This figure is three times the frequency for all other taxpayers and twice that for other small businesses. Data for most of the preceding decade also indicate similar proportions. By typology, nearly 60 percent of farms with sales over \$250,000 and retirement farms reported capital gains, while about one-third of smaller sales, primary occupation farms, limited-resource farms, and lifestyle/other farms reported capital gains. About two-thirds of all dairy farmers and about half of other livestock farmers report some capital gains income each year. Of the \$15 billion in net capital gains reported by farmers in 1996 (table 9), about \$6.25 billion or 41 percent was attributed to assets used in a trade or business (table 8). For primary occupation small farms, over 90 percent of net capital gains were from the sale of business assets. For limited-resource and large family farms, about 60 percent and 44 percent of capital gains, respectively, were from business assets. Only 36 percent and 20 percent of capital gains were from business assets for retirement and lifestyle/other farms, respectively.

Capital gains are also heavily concentrated among the wealthiest taxpayers, although the distribution is less concentrated in farming than for all taxpayers. Farmers in the top 5 percent of the AGI distribution reported over half of the capital gains reported by farmers, while the top 5 percent of all taxpayers reported nearly three-fourths of the total capital gains. One reason for this more even distribution is that farmers are more likely to report capital gains from the sale of business assets, rather than as a direct result of financial wealth.

Under current law, the maximum individual tax rate on capital gains is 20 percent for assets held longer than 1 year, and lower rates may be available for assets held over 5 years. Any capital gain which otherwise would be taxed at a 15-percent ordinary rate is taxed at a 10-percent rate. Capital gains on assets held less than 1 year are taxed as ordinary income. A special 25-percent maximum tax rate applies to gains on certain depreciable business property.

Current law also provides for lower capital gains tax rates on assets owned for more than 5 years. After December 31, 2000, gains from selling property owned for more than 5 years that would be taxed at the 10-percent rate qualifies for an 8-percent tax rate. Any

gain that otherwise would be taxed at the 20-percent rate qualifies for an 18-percent tax rate if the asset was held longer than 5 years and purchased after December 31, 2000. To qualify for the 18-percent rate, taxpayers may elect to treat existing assets as having been sold for fair market value on January 1, 2001, and reacquired at that same value.

Historical Background

Beginning with the Revenue Act of 1921, which created a maximum tax rate of 12.5 percent, noncorporate capital gains have received preferential treatment. This preferential treatment has been accomplished either by providing a lower maximum tax rate on capital gains than on ordinary income or by allowing a portion of the gain to be excluded. Throughout most of the decade before the Tax Reform Act of 1986 (TRA86), a 60-percent exclusion applied. Thus, only 40-percent of long-term gains were subject to taxes. Taxpayers in all brackets benefited from the exclusion, but the exclusion was more valuable for taxpayers in the higher marginal brackets. In 1986, the last year of the exclusion, the maximum effective reduction in tax rates was from the 50-percent ordinary tax bracket to an effective 20-percent tax.

The TRA86 maintained the distinction between capital gains and ordinary income but eliminated the 60-percent exclusion. Instead, it created a maximum capital gains tax rate of 28 percent that was equal to the maximum 28-percent ordinary tax rate under the TRA86. All taxpayers would pay the same rate on capital gains as ordinary income unless the maximum individual tax rate increased. When the top individual rate increased to 31 percent in 1991 (and to 39.6 percent in 1993), taxpayers in these upper brackets paid a lower rate on capital gains than on ordinary income. In terms of the exclusion that existed prior to TRA86, the 28-percent ceiling on capital gains tax rates created an effective exclusion of 9.7 percent for taxpayers in the 31-percent bracket, and 29 percent for taxpayers in the 39.6-percent bracket.²

Preferential capital gains treatment was restored to all taxpayers following the Taxpayer Relief Act of 1997

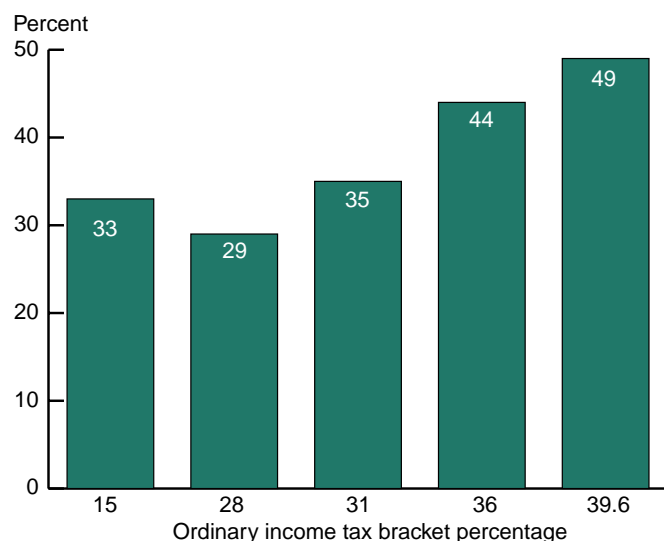
²While lower tax rates on capital gains may be viewed as an effective exclusion, the size of the effective exclusion may be less than indicated for some taxpayers. Under current law, the entire capital gain is included in adjusted gross income (AGI) and may therefore accelerate the phaseout of some deductions or tax credits. When this occurs, the size of the effective exclusion decreases. Such a reduction does not occur when part of the gain is directly excluded from AGI.

(TRA97). The maximum individual tax rate on long-term capital gains became 20 percent (10 percent for gains that would otherwise be taxed at the 15-percent ordinary tax bracket). To qualify for the 20-percent and 10-percent rates, the TRA97 required an 18-month holding period. The Act preserved the maximum 28-percent rate, however, for assets held between 12 and 18 months. Capital gains on assets held less than 1 year continued to be taxed as ordinary income. The IRS Restructuring Act of 1998 simplified the capital gains rate structure by shortening the holding period requirement from 18 months to 12 months. The 10- and 20-percent capital gains tax rates create five effective exclusions for capital gains income – ranging from a 29-percent effective exclusion for taxpayers in the 28-percent ordinary tax bracket, to a 49-percent effective exclusion for taxpayers in the 39.6-percent ordinary tax bracket (fig. 5).

Capital Gains Treatment of Farm Assets

Assets used in a trade or business (such as farming) are not capital assets under the tax law, but do receive preferential treatment. Capital assets generally include any property except business inventory held for sale or depreciable or real property used in a trade or business. Property held for personal use is a capital asset, and gains qualify for capital gains treatment, but losses are not deductible (except from casualty or theft). Stocks and bonds are also capital assets qualifying for preferential treatment, and losses may offset both capital

Figure 5
Effective exclusion for capital gains income



Note: Numbers within columns reflect effective exclusions percentage for capital gains income in each tax bracket.
Source: USDA-ERS.

gains and ordinary income depending on individual circumstances.

Although assets used in a trade or business (section 1231 property) are not capital assets, gains from the sale of such assets are treated as capital gains, and losses are treated as an offset to ordinary income. Among the farm assets eligible for such treatment are farmland and livestock held for draft, dairy, breeding, or sporting purposes. The holding period requirement is generally 1 year. Cattle and horses must be held at least 2 years, however, and poultry are not eligible for capital gains treatment.

Depreciable assets used in the trade or business are treated somewhat differently. Gain from selling depreciable assets generally does not qualify for capital gains treatment to the extent of recaptured depreciation, since depreciation reduces taxable income at ordinary tax rates. For example, gain from selling depreciated equipment and single-purpose agricultural structures (section 1245 property) is taxed as ordinary income. However, under current law, farm buildings and similar depreciable business real estate (section 1250 property) receive a 25-percent capital gains tax rate on recaptured depreciation to the extent of straight-line depreciation method. Recaptured depreciation in excess of the straight-line amount is taxed at ordinary tax rates.

The capital gains treatment for farm business assets is most beneficial when combined with the ability to deduct preproductive expenses and to ignore inventories through cash accounting. This combination allows farmers to deduct development expenditures against their current income at regular tax rates and to convert income to capital gains that may be eligible for lower tax rates which are further deferred until the asset is sold.

Deducting Preproductive Capital Expenditures

Another feature of the Federal income tax that applies specifically to farmers is the ability to deduct the cost of developing certain farm assets in the tax year when the costs are incurred or paid. Examples of preproductive development costs include raising dairy, draft, breeding, or sporting livestock to their age for mature use, caring for orchards and vineyards before they are ready to produce crops, and clearing land and building long-term soil fertility by applying lime, fertilizer, and other materials.

Expensing of development costs causes a mismatching of expenses and income. This mismatching has been used to generate deductions or losses that can be written off against income from other sources. Farm assets eligible for deductible development expenses historically have attracted tax-motivated investment, sometimes to the detriment of the affected industry. For example, concern regarding the impact of tax-motivated investment on production and price levels prompted citrus and almond growers to seek legislation in 1969 requiring the capitalization of development expenses incurred within 4 years of planting.

The Tax Reform Act of 1986 placed additional restrictions on deducting preproductive development costs. Such costs for plants or animals with a development period of 2 years or longer were required to be capitalized and recovered gradually as depreciation or in lump sum at time of sale. Farmers were permitted to elect out of the capitalization requirement if they used the straight-line depreciation method for all assets placed in service during the years the election was used. Costs for land clearing and initial improvements were also required to be capitalized.

In 1988, Congress repealed the capitalization requirement for livestock out of concern over the burdensome recordkeeping requirements. Currently, therefore, only land improvements and costs related to crops with a development period of 2 years or longer are subject to the capitalization requirement.

Cash Accounting

Under the cash method of accounting, expenses are deducted in the year they are paid and income is recognized in the year it is received. Inventories of both inputs and products are ignored in determining farm income. This greatly simplifies the recordkeeping requirement for farmers. However, it also permits individuals to mismatch income and expenses by deducting expenses in the current year and recognizing income that was produced by those expenses in a later year. For some agricultural enterprises, cash accounting can allow large deductions during the early years of an investment and deferred recognition of income by building inventories of the products produced. This can cause the accumulation of larger inventories than would be justified without the tax interaction.

Farmers were originally granted the privilege of using the cash method of accounting by administrative decision in 1915. Continuation of this right has been justi-

fied on the ground that farmers have neither the expertise nor sufficient access to professional assistance to employ the more complicated bookkeeping systems necessary for accrual accounting. Based on 1982 IRS data, approximately 98 percent of farm sole proprietors used the cash method of accounting. A large number of farm partnerships and small business corporations also use the cash method. Because of abuses of the cash method of accounting, Congress has attempted to limit its use. In 1976, farm corporations and partnerships (with a corporation as a partner) with gross receipts over \$1 million were required to use the accrual method of accounting – but the scope was limited by exceptions intended to avoid applying the provision to closely held family corporations. Accounting rules for family farm corporations also changed under the Tax Reform Act of 1986, which required a permanent switch to accrual accounting if gross receipts exceeded \$25 million anytime after 1985. A family farm corporation is one with at least 50 percent of stock held by one family.

The Tax Reform Act of 1986 also created additional restrictions to keep farm sole proprietors from using cash accounting to distort income. Farmers who use the cash method of accounting cannot deduct prepaid expenses for feed, seed, fertilizer, or similar supplies beyond half of their total farm expenses (excluding the prepaid amount) until the inputs are actually used. An amount is a prepaid expense if the supplies are not used or consumed during the year. Therefore, although farmers can prepay some expenses to manage their tax liability, the deductible amount of prepaid expenses is limited to half of the total of nonprepaid expenses. An exception, however, allows a taxpayer whose principal occupation is farming to exceed this limitation if (1) the prepayment limitation has been met for the 3 preceding tax years or (2) the excess prepayment is due to a business operations change caused by extraordinary circumstances such as fire, storm, casualty, disease, drought, or government crop diversion program.

Because most farmers are sole proprietors, cash accounting remains the most common method of accounting in production agriculture. This provides the vast majority of farmers some flexibility to prepay expenses and time income receipts to optimize their current-year tax burdens. A relatively small number of very large family farm corporations – mostly raising livestock, fruit, or vegetables – are required to use the accrual method of accounting which is the standard method for most nonfarm businesses with inventories.

Depreciation Allowances and Capital Expensing

Expenditures to purchase assets that will produce income over a long period of time are capital expenses and generally must be apportioned over the life that the asset is expected to produce income. This apportionment, known as depreciation, deducts only a portion of the cost each year over the life of the asset and helps match the income generated by an asset to the expense of purchasing the asset as the value of the asset decreases over its usable life. Capital expensing is a faster way of recovering costs by immediately deducting a specified dollar amount in the year an asset is purchased.

Agriculture is a capital-intensive industry. In addition to the large investment in land, farming requires substantial investments in buildings, machinery, and equipment. As a result, the system governing the recovery of these capital costs is particularly important for the agricultural economy – not only for farmers, but also for machinery manufacturers, builders, and dealers in local communities.

The capital cost recovery system has a substantial influence on the amount and composition of farm business investment. It specifies the timing of tax depreciation deductions and the levels of investment tax credits, if any. It is therefore a primary determinant of the actual tax burden on income from investment in depreciable farm capital.

Depreciation deductions under the capital cost recovery system are based on the historical cost of assets, and thus have fixed nominal values. The real values of depreciation deductions are reduced by inflation. Higher rates of inflation reduce the value of future depreciation deductions and result in higher effective tax rates and greater disincentives to invest.

Over the years, Congress has made periodic modifications in the capital cost recovery system in an effort to increase investment incentives and compensate for the effects of inflation on tax depreciation deductions. These modifications have included the allowance of accelerated tax depreciation methods, the introduction of investment tax credits, and the shortening of write-off periods.

The Economic Recovery Tax Act of 1981 introduced a new capital cost recovery system referred to as the

Accelerated Cost Recovery System (ACRS). Under ACRS, depreciable assets could be written off at accelerated rates over 3 to 18 years, depending upon asset type. Most farm assets including many farm structures used in dairy, poultry, and hog production could be written off over 5 years, despite significantly longer economic lives. In addition to the shorter recovery period, each farmer could immediately deduct up to \$5,000 of investment in depreciable capital each year.

Most capital assets used in farming were also eligible for a 6-percent or 10-percent investment tax credit. Qualifying property included machinery, equipment, livestock purchased for dairy, draft, breeding, or sporting purposes, crop storage facilities, and single-purpose agricultural structures. The combined effect of the investment tax credit and ACRS resulted in negative effective tax rates for investment in most types of farm machinery, equipment, and some structures³. This provided substantial incentive for increased investment in farm capital.

The Tax Reform Act of 1986 modified the ACRS by lengthening write-off periods and repealing the investment tax credit. However, the option to immediately deduct up to \$5,000 of investment was increased to \$10,000 for businesses that invest less than \$200,000 per year. The net effect of these changes is a capital cost recovery system that is significantly less favorable than the system that governed investment during 1981-85. Under current policies, depreciation deductions for investment in farm property are less favorable than

³Negative effective tax rates occur when tax credits and deductions can offset all the income from the investment plus additional income from other sources.

Table 11—Amount of capital investment that can be expensed, 1981-2003

Tax year	Expensing amount
	<i>Dollars</i>
1981-86	5,000
1987-92	10,000
1993-96	17,000
1997	18,000
1998	18,500
1999	19,000
2000	20,000
2001-02	24,000
2003 and after	25,000

deductions for nonfarm property.⁴ However, the increase in the amount of investment that can be immediately deducted, which is scheduled to reach \$25,000 by 2003, has allowed most small farms to write-off all of their investment in depreciable capital (table 11). In fact, based on 1996 investment levels, about 90 percent of all farmers can expense their capital investment with about two-thirds of total investment in depreciable farm equipment eligible to be written off in the year the equipment is purchased. Larger farms that invest in excess of \$200,000 per year either are not eligible for the deduction or are allowed to expense a reduced amount.

In 1996, farm sole proprietors reported over \$15 billion in depreciation and capital expensing deductions. This represented about 15 percent of total farm business expenses reported on farm tax returns for that year. As would be expected, those farmers who receive most of their income from farming reported the bulk of these

⁴Depreciation deductions were initially determined on the basis of the 200-percent declining balance method. This was changed to the 150-percent declining balance method in exchange for repealing the provision requiring the capitalization of livestock development costs.

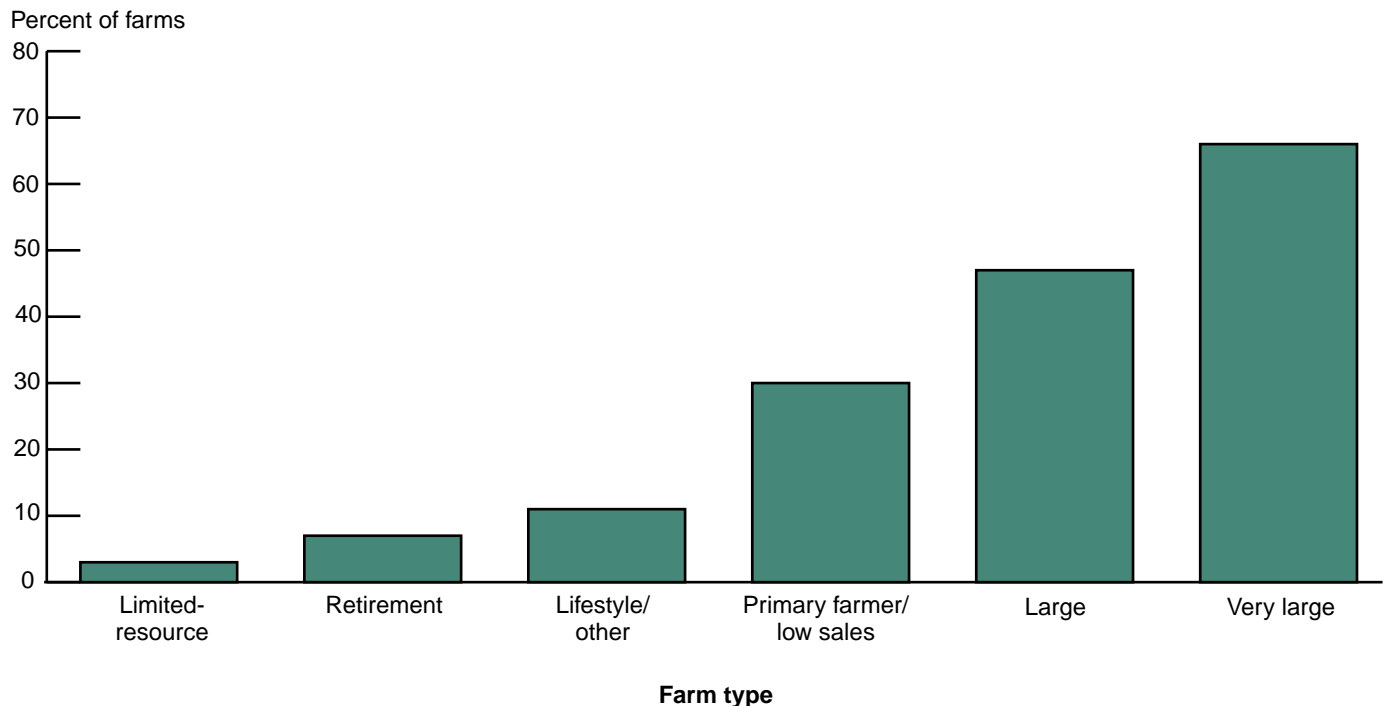
expenses. Expenses for limited-resource, retirement, and lifestyle/other farms were significantly smaller on average. In fact, in 1996 less than 1 percent of limited-resource farmers invested more than the annual expensing limit of \$17,500, while nearly half of all large and nearly two-thirds of very large farms invested more than the annual expensing limit (fig. 6).

Deductions Related to Land

Land is the primary input in farming. Thus, the tax policies that affect investment in land are particularly important for the agricultural economy. Federal income tax provisions that are most important for farmland include the deductibility of nominal interest and property tax payments, the capital gains treatment of appreciation in land values, and the deferral of capital gains until they are realized from sale or other disposition.

Interest and property tax deductions are worth more in tax reductions for taxpayers in higher tax brackets. Likewise, preferential capital gains tax rates offer greater effective tax reductions to those in higher tax brackets. These provisions have combined to make farmland, like many other real estate investments, an attractive tax-favored investment during inflationary periods.

Figure 6
Share of farmers with capital investment over the expensing limit by type of farm, 1996



Source: Estimated by ERS-USDA from ARMS data.

Soil and Water Conservation

Since 1954, farmers have been allowed to claim immediate Federal income tax deductions for certain types of expenditures on soil and water conservation or for the prevention of erosion of land used in farming. Examples of expenses have included leveling, grading, terracing, custom furrowing, planting windbreaks, and constructing, controlling, and protecting diversion channels, drainage ditches, irrigation ditches, earthen dams, watercourses, outlets, and ponds. The list of potential eligible expenditures includes all conservation expenditures that taxpayers would normally add to the basis of land and deduct for tax purposes when the land was sold. Deductions are not allowed, however, for land not used in farming, for draining or filling wetlands, or for preparing land for center-pivot irrigation systems. Depreciable conservation assets such as pipes, tiles, pumps, and other nonearthen structures are also not deductible, except for some assessments by soil and water conservation districts. Each farmer's annual conservation deduction is limited to 25 percent of gross farm income, but excess amounts may be carried over to future tax years.

Since the Taxpayer Reform Act of 1986, farmers have been allowed to claim immediate deductions for soil and water conservation only when the expenses are consistent with a conservation plan approved by the USDA Natural Resources Conservation Service (NRCS) or a comparable State agency. The plan need not be specific to the individual farm, however. USDA and some State agencies have developed area-wide plans that indicate the types of conservation measures that are considered suitable.

If land is sold within 5 years of immediately deducting soil and water conservation expenses, any gain on the sale of land is treated as ordinary income up to the extent of those soil and water conservation deductions. If the sale occurs after 5 years but within 10 years, then only a certain proportion of the gain is treated as ordinary income.

Cost sharing is another method that Federal, State, and local government programs use to encourage farmers' soil and water conservation improvements. As an alternative to deducting soil and water conservation expenses, farmers may be eligible to exclude all or a portion of the government cost-share payment from their taxable income. To be eligible, the Secretary of Agriculture must determine that payments are made primarily for conservation purposes and IRS must

determine that income does not substantially increase as a result of the improvement. A substantial increase in income is defined as the greater of an increase of \$2.50 per acre or a 10-percent increase in the gross receipts from the affected acreage over the average gross receipts for the preceding 3 years. Government payments that are excluded from income are subject to a 20-year recapture provision which recaptures all of the exclusion if the property is sold within 10 years. The recapture percentage is reduced 10 percent per year for the following 10 years.

Livestock Sales Due to Weather-Related Conditions

Selling livestock because of weather-related disasters can create tax timing problems because unusually large sales may cause marginal income tax rates to increase. A special rule applicable to involuntary conversions allows farmers who are forced to sell livestock due to weather-related conditions (such as drought, floods, and other weather-related disasters) to defer recognizing that income until the following year. To qualify, the farmer must show that, under normal business practices, the sale would not have occurred during the current tax year and that weather conditions caused the area to become eligible for Federal assistance. The gains realized from selling more breeding or dairy livestock than would normally have been sold can also be deferred indefinitely by purchasing similar livestock within 2 years.

Prior to the Taxpayer Relief Act of 1997, the provision applied only to sales due to drought. The 1997 Act expanded this special treatment to include floods and other weather-related conditions. Farmers' tax savings from this provision are relatively small overall and are highly dependent on the location and severity of weather-related disasters. The small percentage of farmers who qualify, however, may realize substantial tax savings in any given year.

Income Averaging

Under a progressive tax rate system, taxpayers whose annual income fluctuates widely may pay higher total taxes over a multiyear period than other taxpayers with similar yet more stable income. This situation creates a tax inequity because higher marginal tax rates during years with above-average income raise an individual's effective tax rate over time. Income averaging can mitigate this effect by allowing taxpayers to smooth their

tax burdens over time through tax accounting methods that consider multiyear income. Under current law, since 1998, farmers are the only taxpayers who are eligible for income averaging. Prior to the Tax Reform Act of 1986, all taxpayers were eligible for a different method of income averaging.

Before its repeal in 1986, income averaging was available to both farmers and all other taxpayers who satisfied certain basic requirements. An individual's income must have exceeded 140 percent of the average income in the preceding 3 years. Any excess over \$3,000 was taxed at a lower marginal rate. However, because not all of the above-average income was eligible for lower rates, income averaging before 1986 reduced, but did not eliminate, additional taxes from variable income streams.

After income averaging was repealed in 1986, the simplified tax structure reduced the additional tax burden on variable income because the number of tax brackets dropped from more than a dozen to only three. Since each tax bracket was much wider, income could vary more before the taxpayer entered a higher marginal bracket. Farmers also could still use other income tax provisions to manage their tax brackets in the absence of income averaging. Cash accounting could reduce taxable income through prepaid business expenses or deferred farm income, and well-timed capital purchases could reduce taxable income through depreciation deductions or capital expensing. However, several developments in the mid-1990's increased the likelihood that some farmers would pay more tax because of income variability. The 1993 introduction of additional, higher tax brackets to the simplified tax structure of the 1986 Act increased the potential for some higher income taxpayers to reach higher brackets. Some farmers also experienced more income variability following the decoupling and scheduled phaseout of farm program payments under the 1996 Farm Act.

The Taxpayer Relief Act of 1997 created a new method of income averaging that is more restrictive by being available only for farmers and only on farm income. Under the current law, a farmer can elect to shift a specified amount of farm income, including gain on the sale of farm assets except land, to the preceding 3 years and pay tax at the rate applicable to each year. The current income shifted back is spread equally among the 3 years. If the marginal tax rate was lower during one or more of the preceding years, a farmer may pay less tax than without income averaging. The provision does not allow, however, income from previous years to be

brought forward. Furthermore, as long as some farm income is available to be shifted, the source of income variability does not need to be from farm income for income averaging to be beneficial.

Compared with tax brackets before the 1986 Tax Reform Act, today's flatter tax rate structure and lower marginal rates require larger changes in income to benefit from income averaging. Restricting income averaging to farm income rather than total household income also reduces the number of farmers who will benefit and the potential tax savings. Before the 1986 Act, about 10 percent of farmers used income averaging and saved, on average, an estimated \$800 each. Data on farmers' actual use of the current income averaging provision is not yet available. However, restricting income averaging to farm income may reduce the number who will benefit and the tax savings.

Self-Employed Health Insurance Deduction

The self-employed health insurance deduction was created in 1988 and is intended to give small business owners, including many farmers, tax benefits similar to employees who receive employer-deductible health insurance. It is especially important for self-employed people who must purchase health insurance on their own. It is easier to use than the alternative of deducting health insurance premiums with itemized medical expenses since itemized medical expenses are deductible only to the extent they exceed 7.5 percent of AGI – a hurdle that reduces potential deductions and is difficult for many taxpayers to meet.

In 2001, farmers and other self-employed taxpayers are allowed to deduct 60 percent of the cost of providing health insurance for themselves and their families as long as they are not eligible for an employer-sponsored

Table 12—Deductible portion of self-employed health insurance premiums since inception

Tax year	Deduction
	<i>Percent</i>
1988-94	25
1995-96	30
1997	40
1998	45
1999-2001 ¹	60
2002 ¹	70
2003 and after ¹	100

¹Schedule to increase deductibility, part of the Tax and Trade Extension Relief Act of 1998.

plan. The deduction is allowed as long as the taxpayer's earned income from self-employment exceeds the deduction, thus eliminating the deduction for farmers with net farm losses. The remainder of their health insurance premiums may be included with itemized medical expenses and are deductible if the household is able to satisfy the itemized medical expenses threshold.

From 1988 until 1994, the self-employed health insurance deduction was limited to 25 percent of premiums (table 12). Legislation passed in 1995 increased the deduction to 30 percent. The Small Business Job Protection Act of 1996 increased the deduction to 40 percent for 1997, and established a schedule to gradually increase the deduction to 80 percent by 2006. Since then the phase-in schedule has been accelerated twice. The Taxpayer Relief Act of 1997 advanced the schedule and would have achieved full deductibility by 2007. Current rates became effective under the Tax and Trade Extension Relief Act of 1998, which accelerated the phase-in to full deductibility by 2003.

Only about 14 percent of all farmers use the self-employed health insurance deduction in any given year. However, nearly 45 percent of primary occupation farmers with gross sales over \$100,000 annually use the deduction (table 13). Only about 8 percent of lifestyle/other farmers use the deduction, primarily because these households are more likely to receive health insurance from a nonfarm job or may not qualify for the deduction given the likelihood of reporting a farming loss.

A 60-percent deduction allows a farmer in the 15-percent tax bracket to save 9 percent of the cost of the premium, or \$315 in reduced taxes on a \$3,500 annual premium. Increasing the deduction from 60 percent to 100 percent will save an additional 6 percent of the premium. When the self-employed health insurance deduction becomes fully deductible, affected taxpayers will be able to save a portion of their premiums equal to their marginal tax bracket, helping make health insurance more affordable and make the tax treatment more comparable to employer-sponsored plans.

Net Operating Losses

A net operating loss (NOL) occurs when business expenses exceed gross income. As mentioned previously, each year about two-thirds of all farm sole proprietors report a net farm loss on schedule F. However, not all of these farms create, nor do all of their losses represent, a net operating loss. Most losses from schedule F are used to offset nonfarm income in the same tax year. Only about 10 percent of those losses become net operating losses, with nearly 100,000 farmers affected.

Under current tax law, net operating losses from farming can be carried back 5 years and forward 20 years. Carrying back a NOL creates a refund of taxes paid in previous years, while carrying forward a NOL can reduce future taxable income. Farmers receive special treatment for NOL carry-back because other taxpayers are able to carry back losses only 2 years. The 5-year carry-back period was enacted in 1998 as part of the Tax and Trade Relief Extension Act of 1998 – an

Table 13—Use of the self-employed health insurance deduction by farm proprietors, 1996

Item	Small family farms			Primary occupation Farm sales (\$1,000)		Large family farms	All farm proprietors
	Limited- resource	Retirement	Lifestyle/ other	<\$100	\$100-\$250		
				<i>Number</i>			
Farmers using deduction	25,502	28,588	87,840	27,696	24,054	18,846	223,023
				<i>Percent</i>			
Share of group	11.7	10.9	7.5	16.5	44.8	43.8	13.6
				<i>\$1,000</i>			
Amount deducted	18,159	25,773	88,601	53,260	70,743	40,176	296,712
				<i>Dollars</i>			
Average deduction	712	902	1,009	959	1,039	1,108	983
Average premium ¹	2,374	3,005	3,362	3,195	3,464	3,693	3,277

¹Premium is computed by dividing the amount deducted by the 30-percent deduction rate allowed in 1996.

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

attempt to increase cash-flow for farmers temporarily suffering from losses due to low commodity prices. The longer carry-back period increases both the likelihood of a tax refund and the amount of a potential refund if the NOL is especially large. The NOL rules primarily benefit farmers with large farm losses who do not receive much nonfarm income but who have paid taxes in previous years. Generally, farms with these characteristics include primary occupation small farms and some limited-resource or retirement farms.

In 1995, about 77,000 farm sole proprietors created an estimated \$1.7 billion of farm NOL's that could be carried to other tax years. Data are not available to estimate how much of these losses were carried back or forward, or to classify how the losses created were distributed across the farm typology. Historically, however, the accumulated NOL carry-forward for all farmers is quite large. An estimated 913,000 farmers carried over \$7.8 billion in NOL's into tax year 1995 (table 14).

The Passive Loss Rules

One of the primary features of farm and other tax shelters that existed in the early 1980's was the generation of tax losses and credits that could be used to reduce taxes on income from other sources. The Tax Reform Act of 1986 introduced new rules aimed at limiting the availability of tax shelters throughout the economy. These new rules placed substantial restrictions on the ability of individuals, estates, trusts, personal service corporations, and closely held corporations to use losses and credits generated from a passive activity to offset other types of income. Under these rules, such losses and credits may not be used to offset income or

tax from nonpassive sources such as a trade or business in which the individual materially participates. Passive activity losses and credits in excess of passive activity income are suspended and carried forward indefinitely to be used to offset future income from the same or other passive activity.

A passive activity is defined as an activity which involves the conduct of a trade or business in which the taxpayer and/or the taxpayer's spouse does not materially participate. A taxpayer is treated as materially participating in an activity only if the taxpayer is involved in the operations on a regular, continual, and substantial basis. Any rental activity is treated as a passive activity, even if the taxpayer materially participates in the activity. However, a special rule allows up to \$25,000 of losses and credits (deduction equivalents) from rental real estate activities in which the taxpayer actively participates to be used to offset other types of income. The active participation requirement is less stringent than the material participation requirement in that the taxpayer need not be involved in the activity on a regular, continual, and substantial basis. However, a taxpayer must participate in the making of management decisions or in arranging for others to provide services. The \$25,000 exemption is phased out by 50 percent of the amount by which the taxpayer's adjusted gross income exceeds \$100,000. Thus, taxpayers with adjusted gross income in excess of \$150,000 are not permitted to use losses in a rental activity to offset income from other nonpassive sources.

An examination of Federal income tax return data for 1987 provides some insight into the initial impact of the passive loss rules. The percentage of individuals

Table 14—Net operating losses (NOL) reported by farm sole proprietors, 1987-95

Year	NOL carried in ¹		Total NOL created ²		Farm NOL created ²	
	Number	Amount	Number	Amount	Number	Amount
		\$1,000		\$1,000		\$1,000
1987	1,069,385	-10,393,240	53,111	-2,669,295	47,783	-1,293,475
1988	877,773	-8,934,429	55,631	-2,375,248	50,840	-1,437,756
1989	900,644	-8,571,596	47,968	-2,261,914	42,722	-1,118,375
1990	864,730	-7,240,840	48,894	-2,008,501	45,012	-1,161,805
1991	901,434	-8,436,830	65,617	-3,272,532	61,551	-1,356,152
1992	809,815	-6,976,746	60,382	-1,950,676	55,234	-1,130,652
1993	887,462	-6,745,299	59,802	-2,556,630	54,454	-1,249,553
1994	872,615	-6,615,389	78,155	-2,716,738	70,333	-1,646,236
1995	913,058	-7,815,663	83,735	-2,691,232	77,490	-1,651,872

¹NOL carried forward from previous year for both farm and nonfarm businesses. The estimate may understate the true value by the amount of other miscellaneous income reported on IRS form 1040, but the bias is expected to be small.

²NOL created as a result of losses in the current year, before carry-back to earlier years.

Source: USDA-ERS estimates based on IRS Individual Public Use Tax Files.

with farm income or loss reporting passive losses was over 8 percent or more than double the percentage for all other taxpayers. The average passive loss reported was also somewhat higher at about \$20,000 for a total of \$4.2 billion in passive losses.

The primary target of the passive loss rules was high-income taxpayers with only limited involvement in the activity generating the loss. An examination of farmers reporting passive losses by level of off-farm income indicates that the passive loss rules had the greatest impact on this target group. In fact, about half of all farmers with nonfarm income of \$100,000 or more reported passive losses in 1987. These farmers reported an average of \$64,300 in passive losses for a total of \$2.3 billion. Thus, this relatively small group of farmers accounted for over 55 percent of all passive losses reported by farmers.

A decade after enactment, the importance of the passive loss rules has declined. For 1995, only about 4 percent of all farmers reported passive losses, with the average loss of about \$12,300 for a total passive loss of \$1.1 billion. This is a small share of the total farm losses reported by farm sole proprietors, and less than 10 percent of these losses were not allowed to reduce other income in the current tax year. Clearly, the level of passive losses has declined substantially since 1987, with passive losses accounting for only about 6 percent of farm losses compared with over 30 percent of farm losses in 1987. This suggests that the passive loss rules either have discouraged many nonfarm individuals from making tax-motivated investments in agriculture or have required them to increase their level of involvement in the farm operation to use these losses to offset other income.

Alternative Minimum Tax

In some cases, taxpayers can greatly reduce or even eliminate income tax liability completely by utilizing preferential income tax provisions. The alternative minimum tax (AMT) ensures that these individuals pay some Federal income tax. When the AMT was created in the 1970's, very few individuals were affected. However, the exemption amount for the AMT has not been indexed for inflation while other provisions in the tax code are indexed. As regular tax deductions increase relative to the fixed exemption amount for AMT, more taxpayers begin to owe AMT depending on combinations of base income, tax brackets, and other deductions. The number of taxpayers who pay AMT is projected to increase steadily over the next several years

Table 15—Farm sole proprietors affected by the alternative minimum tax (AMT), 1987-96

Year	All farm sole proprietors	Share filing form 6251	Share paying AMT	Amount of AMT
	<i>Number</i>	<i>Percent</i>		<i>\$1,000</i>
1987	2,424,528	9.5	0.55	167,729
1988	2,381,040	5.6	.46	105,070
1989	2,377,773	5.4	.32	85,782
1990	2,341,679	11.8	.35	90,365
1991	2,310,964	8.9	.45	105,728
1992	2,306,154	11.9	.38	101,493
1993	2,292,963	9.7	.62	128,037
1994	2,264,833	11.4	.63	129,172
1995	2,244,021	11.4	.69	128,074
1996	2,218,964	10.1	.78	180,883

Source: USDA-ERS estimates based on IRS Individual Public Use Tax Files.

under the current tax structure. The compliance burden for affected taxpayers increases greatly because the AMT requires many separate calculations and tests to determine eligible deductions under AMT rules.

More farmers are affected by the AMT than other taxpayers. In 1995, less than 1 percent of farm sole proprietors actually paid AMT, although about 11 percent filed the form used to compute the tax (table 15). By comparison, a similar share of nonfarm business proprietors paid AMT, but only about 8 percent filed the form. Of the remaining nonfarm, nonbusiness taxpayers, only about half as many paid AMT in 1995, and only about 2 percent filed the AMT form. More recent data indicate that an increasing proportion of farmers and other taxpayers are subject to the tax. Farm typology data from 1996 indicate that 0.78 percent of all farmers actually paid AMT, although about 10.1 percent filed the form. Large family farms are most likely to both file the form and pay the tax (23 percent and 3 percent, respectively), although small primary occupation farms with sales above \$100,000 are also much more likely to be affected than the average farmer (table 16). Limited-resource farms are virtually unaffected by the AMT because of their low incomes. Farms in the lifestyle/other category may be affected by the AMT both because of tax shelter farm activities and because of other nonfarm tax preferences.

The alternative minimum tax is imposed at rates of 26 percent and 28 percent on alternative minimum taxable income in excess of a phased-out exemption amount. Alternative minimum taxable income (AMTI) is the

taxpayer's regular taxable income increased by certain itemized deductions (or the standard deduction) and other tax preferences. A relatively high exemption amount (\$45,000 for joint returns) keeps most individuals from owing any AMT, although the exemption is phased out at high income levels (for joint returns, 25 cents for every \$1 that AMTI exceeds \$150,000). The 26-percent minimum tax rate applies to taxable income exceeding the exemption for amounts up to \$175,000; income over this amount is taxed at the 28-percent rate. Capital gains income, however, is taxed under the AMT at the same preferential rates as it is under the regular income tax. If the minimum tax computed exceeds the tax owed under the regular income tax, the difference is added to the individual's tax liability.

The most important tax preference items for farmers include accelerated depreciation (for machinery placed in service before the Tax Reform Act of 1986), passive farm losses, and installment sales.

In 1997, Congress took steps to reduce the effect of the AMT on farmers, small corporations, and other businesses. Many farmers use deferred payment contracts to deliver farm commodities for sale at a specified price, usually in autumn, with payment deferred until the following year. For the majority of farmers using the cash method of accounting, deferred payment con-

tracts allowed them to delay paying income taxes until the following tax year when payment was actually received. However, in a 1996 ruling, IRS interpreted deferred payment contracts as an installment sale that must be recognized in the year of sale for AMT purposes. The 1997 law restored farmers' ability to use deferred payment contracts to defer regular income taxes without being subject to the AMT.

The 1997 law also repealed the AMT for small corporations with 3-year average gross receipts of less than \$7.5 million, beginning with the 1998 tax year. This allows most farm corporations to avoid the complexities of the AMT.

For depreciable property placed in service in 1999 or after, AMT depreciation adjustments are simplified because longer recovery periods are no longer required compared with regular income taxes. Before this simplification, AMT required depreciation to be computed both over a longer period of years and at the slower 150-percent declining balance rate (rather than the faster 200-percent declining balance rate allowed for nonfarm assets). For farmers, eliminating longer recovery periods means no separate depreciation schedules for the AMT, because the regular income tax already required farm property to be depreciated using the 150-percent declining balance rate. As older equipment is

Table 16—Farm sole proprietors affected by the alternative minimum tax, 1996

Item	Small family farms				Large family farms	All farm proprietors	
	Limited-resource	Retirement	Lifestyle/other	Primary occupation Farm sales (\$1,000)			
				<\$100	\$100-\$250		
				<i>Number</i>			
All filing AMT form	5,082	21,469	125,877	27,696	24,054	18,846	223,023
				<i>Percent</i>			
Share of group	2.3	8.2	10.8	8.2	15.8	22.7	10.1
				<i>Number</i>			
All paying AMT	¹	3,970	9,178	1,124	623	2,309	17,211
				<i>Percent</i>			
Share of group	0	1.52	.79	.33	.41	2.79	0.78
				<i>\$1,000</i>			
Amount paid	¹	25,916	114,380	11,435	2,330	26,685	180,883
				<i>Dollars</i>			
Average, payers	¹	6,528	12,462	10,173	3,740	11,557	10,510
Average, all farms	¹	99	98	34	15	322	82

¹Data unreliable because of small sample size.

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

replaced or fully depreciated, this will eventually reduce the recordkeeping burden and the number of farms subject to the alternative minimum tax.

The 1997 AMT changes will reduce future AMT burdens for some farmers, but will not likely offset the rising trend in AMT affecting all taxpayers. Also, income averaging for farmers that was made available by the 1997 Act has begun to create AMT problems for some farmers because it reduces tax liability for regular tax purposes but does not affect AMT.

Earned Income Tax Credit

The earned income tax credit (EITC) is a refundable tax credit available to low-income workers who satisfy certain income and other eligibility criteria. Workers with children meeting age, relationship, and residency requirements can receive a credit of up to 40 percent of

their earned income. Workers between the ages of 25 and 65 who do not have children and are not claimed as another person's dependent can receive up to a 7.65-percent credit.

The EITC was created in 1975 to reduce the burden of social security taxes on low-income workers, encouraging them to seek employment rather than welfare benefits. The program was expanded in 1990 and 1993 by increasing the amount of the credit and allowing childless workers to become eligible – making the EITC one of the largest programs targeted to low-income individuals. As an incentive to work, the EITC increases for each additional dollar of earnings until a maximum credit amount is reached. Like most other programs, the credit is reduced as earnings increase beyond another income threshold. Most taxpayers receive the EITC as a lump sum at the end of the year by claiming it on their Federal income tax return. Since the credit is

Table 17—Earned income credit received by farm households, 1996

Item	Small family farms				Large family farms	All farm proprietors	
	Limited-resource	Retirement	Lifestyle/other	Primary occupation			
				Farm sales (\$1,000)			
				<\$100	\$100-\$250		
<i>\$1,000</i>							
Amount of credit:							
Total ¹	61,619	5,083	85,310	61,917	42,366	10,353	266,649
Offsets income tax	<i>415</i> ²	0	11,866	4,568	4,535	1,081	22,465
Offsets other taxes	17,328	<i>1,235</i> ²	14,736	20,377	22,716	5,952	82,345
Refundable portion	43,875	<i>3,849</i> ²	58,708	36,972	15,115	3,320	161,838
<i>Percent</i>							
Share of credit:							
Offsets income tax	<i>.7</i> ²	0	13.9	7.4	10.7	10.4	8.4
Offsets other taxes	28.1	<i>24.3</i> ²	17.3	32.9	53.6	57.5	30.9
Refundable portion	71.2	<i>75.7</i> ²	68.8	59.7	35.7	32.1	60.7
<i>Number</i>							
All with credit ¹	48,670	4,020	69,000	43,170	32,900	7,890	205,650
<i>Percent</i>							
Share by group:							
Total credit	22.3	1.5	5.9	12.8	21.6	9.5	9.3
Offset of income tax	<i>1.8</i> ²	0	2.7	4.0	8.7	2.7	2.9
Offset of other taxes	16.7	<i>1.4</i> ²	2.3	6.0	15.5	7.8	5.3
Refundable credit	15.2	<i>.9</i> ²	4.0	9.4	8.4	3.9	5.9
<i>Dollars</i>							
Average for recipients	1,266	1,264	1,236	1,434	1,288	1,312	1,297

¹These figures may underestimate the current situation because of the disqualified income test enacted in 1996 which eliminated the earned income credit for many farmers because sales of breeding and dairy livestock were considered part of capital gains from investment activities. An estimated 50,000 farm households were disqualified from receiving nearly \$70 million in credits. In 1999, sales of such business assets were removed from the disqualified income test, restoring the credit to many disqualified farmers.

²*Italics* indicate that estimate should be used with caution because the sample contained 10 or fewer tax returns.

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

refundable, any amount in excess of their Federal income tax or other tax liabilities is refunded to help offset social security taxes.

Although the EITC is a general tax provision, it is important to many farm households that qualify because of low income – frequently limited-resource farms and primary occupation farms that do not have nonfarm wage income. In 1995, about 290,000 farmers – about 13 percent of all farm sole proprietors – received nearly \$350 million from the earned income credit. These numbers do not reflect, however, the full phase-in of provisions enacted in 1993. Estimates for 1996 illustrate the differences by farm typology but understate the total amount of the credit and its recipients relative to current law because of an eligibility test that disqualified many farmers who routinely sold breeding and dairy livestock, as discussed below. Nonetheless, in 1996, nearly 206,000 farmers – or about 9 percent of all farm sole proprietors – received over \$266 million from the credit (table 17). The average credit was \$1,297, with over 60 percent of the total refunded rather than offsetting taxes. By farm typology, over 20 percent of limited resource farms and primary occupation small farms with sales over \$100,000 received the credit. About 13 percent of primary occupation farms with sales less than \$100,000 received the credit. For farmers who qualify, the EITC significantly reduces their effective tax burden and frequently provides additional cash-flow to meet household living expenses.

Rules for the EITC that are particularly important for farmers include the treatment of business losses and how much investment income is received. Eligibility is phased out if earned income or modified adjusted gross income exceeds a specified threshold amount. In determining modified adjusted gross income, 75 percent of business losses – including farming losses – are disregarded. Therefore, farmers cannot easily use losses on schedule F to reduce other earned income to a level that qualifies for the EITC. Disregarding 75 percent of business losses falls disproportionately on farmers because nearly two-thirds of all farmers report a net loss each year.

In an effort to better target the credit beginning in 1996 by denying benefits to those with moderate amounts of accumulated assets, taxpayers who had relatively small amounts of investment income became ineligible for the credit regardless of their other income. The investment income limit is \$2,200 of interest, dividends, or net capital gains. IRS initially included the sale of business assets – including culled breeding and dairy livestock – in determining net capital gains. As a result, an estimated 50,000 farmers were disqualified for as much as \$70 million in annual benefits. The disqualified income test affected farmers in the Corn Belt, Great Lakes States, and Northeast regions more than in other areas and was 10 times more likely to disqualify farmers than nonfarm taxpayers. However, IRS reversed its position in 1998 (retroactively) by indicating that sales of breeding and dairy livestock and similar business assets should not be considered net capital gains for the investment income test.

Social Security and Other Labor Taxes

The Federal tax system imposes two taxes on wages paid to farm laborers, a social security tax and an unemployment insurance tax. The social security (self-employment) tax is also imposed on a farmer's net earnings from self-employment.

Social Security and Self-Employment Taxes

Social security taxes include two components: the old age, survivor, and disability (OASDI) portion and the Medicare hospital insurance (HI) portion. Social security tax burdens have risen dramatically in recent decades because of increases in both the tax rate and the amount of income subject to taxation. The most recent rate increases stem from a decade of legislation, beginning with the Social Security Amendments Act of 1983 (table 18).

Unlike Federal income taxes which are progressive, the social security tax is a flat rate with a maximum taxable amount. In 1980, the total payroll tax on wage income was 12.26 percent and the maximum amount of earnings subject to the tax was \$25,900. By 1990, the tax rate had increased to its current level of 15.3 percent (7.65 percent for both the employer and the employee) and maximum earnings subject to tax were \$50,400.

Social security taxes increased again in 1991 when a separate, higher earnings cap was created for the Medicare hospital insurance (HI) portion of the tax. Previously, a single earnings cap applied to both the (HI) portion of the tax and the old age, survivor, and disability insurance (OASDI) tax. The earnings cap for the 2.9-percent HI tax (1.45 for both the employer and the employee) more than doubled from the OASDI cap and increased from \$125,000 in 1991 to \$135,000 in 1993. The HI cap was removed completely in 1994, making all wage and self-employment income subject to the 2.9-percent tax. While only about 1 percent of farm sole proprietors had wage or self-employment income above the cap, the removal of the cap added to the overall increase in social security tax burdens.

For 2001, a 7.65-percent rate for both the employer and employee (6.2 percent for OASDI, plus 1.45 percent for HI) applies to wages through \$80,400. Wages above \$80,400 are subject only to the Medicare or hospital insurance tax rate.

Generally, an employer must withhold social security and Medicare taxes on all cash wages paid to employees for agriculture labor if their wages for farm work meet either of two tests. The first test requires that social security taxes be withheld if an employee receives \$150 or more in wages for the year. Withholding must also occur if a total of \$2,500 is paid for all farm employees during the year. There is a limited exception for wages paid to a farm worker who receives less than \$150 in annual wages if the farm worker is employed as a hand-harvest laborer, is paid on a piece-rate basis, commutes daily from the worker's home, and worked in agriculture for less than 13 weeks in the prior year. Compensation paid to agricultural employees in-kind is not subject to social security taxes. This has encouraged some farmers to pay their employees in farm commodities.

Self-employed farmers must pay 15.3 percent of net farm profit up to a maximum of \$80,400. They pay 2.9 percent on net farm profit above \$80,400. Net farm profit for social security tax purposes does not include investment income or gains and losses from the sale of assets used in the farm business. However, since the tax is imposed on net farm profit, it can include income generated from assets such as land that are used in the farm business as well as the return to the farmer's labor. Because the share of social security taxes paid by an employer is not included in an employees' wage and salary income, self-employed individuals receive an income tax deduction for one-half of their self-employment tax and a 7.65-percent exclusion of self-employment income. Thus, the self-employment tax is comparable with social security taxes on wage and salary income.

In 1994, the average effective social security tax rate for all farmers was 10 percent, up from only 7.6 percent in 1987. Effective rates continue to be regressive and range from nearly 14 percent for farmers with income less than \$10,000 to only 2.6 percent for farmers with income over \$200,000. On average, farmers earning less than \$60,000 paid more in social security taxes than in Federal income taxes. This group, which represented about 80 percent of all farmers in 1994, paid an average of \$3,400 in social security taxes and only \$1,900 in Federal income taxes. For all farmers, average Federal income taxes were \$7,400, and social security taxes were \$4,600 (Durst and Monke, 1998).

While the sharp increase in tax rates and the amount of income subject to tax have increased individual self-employment tax liabilities, total self-employment taxes

paid by farmers have not increased nearly as fast. In 1996, farmers paid a total of \$1.8 billion in self-employment taxes. The primary reason that total self-employment taxes have not kept pace with the increase in tax rates is the drop in the number of farms reporting a farm profit. IRS data indicate that each year since 1980 farmers in the aggregate have reported negative

net farm income for taxes. The total amount of net farm losses increased annually from 1990 through 1996, reversing a recovery in farm income that started in 1984. The proportion of farm sole proprietors reporting a net farm profit on schedule F has been declining with only 33 percent of farms reporting profits in 1996, compared with 44 percent in 1989. The reporting of

Table 18—Social security tax rates, 1955-2001

Year	Maximum taxable earnings ¹	Self-employed		Employers and employees		
		Tax rates	Maximum tax	Tax rates		Maximum tax
				Each	Total	
	Dollars	Percent	Dollars	Percent	Dollars	
1955	4,200	3.00	126	2.00	4.00	168
1960	4,800	4.50	216	3.00	6.00	288
1970	7,800	6.90	538	4.80	9.60	749
1971	7,800	7.50	585	5.20	10.40	811
1972	9,000	7.50	675	5.20	10.40	936
1973	10,800	8.00	864	5.85	11.70	1,264
1974	13,200	7.90	1,043	5.85	11.70	1,544
1975	14,100	7.90	1,114	5.85	11.70	1,650
1976	15,400	7.90	1,209	5.85	11.70	1,790
1977	16,500	7.90	1,304	5.85	11.70	1,931
1978	17,700	8.10	1,434	6.05	12.10	2,142
1979	22,900	8.10	1,855	6.13	12.26	2,808
1980	25,900	8.10	2,098	6.13	12.26	3,175
1981	29,700	9.30	2,762	6.65	13.30	3,950
1982	32,400	9.35	3,029	6.70	13.40	4,342
1983	35,700	9.35	3,338	6.70	13.40	4,784
1984	37,800	11.30 ²	4,271	7.00 ³	13.70	5,179
1985	39,600	11.80 ²	4,673	7.05	14.10	5,584
1986	42,000	12.30 ²	5,166	7.15	14.30	6,006
1987	43,800	12.30 ²	5,387	7.51	14.30	6,263
1988	45,000	13.02 ²	5,859	7.51	15.02	6,759
1989	48,000	13.02 ²	6,250	7.51	15.02	7,210
1990	51,300	15.30 ⁴	7,849	7.65	15.30	7,849
1991	53,400	15.30	10,246 ⁵	7.65	15.30	10,246 ⁵
1992	55,500	15.30	10,652 ⁵	7.65	15.30	10,652 ⁵
1993	57,600	15.30	11,057 ⁵	7.65	15.30	11,057 ⁵
1994	60,600	15.30	9,272 ⁶	7.65	15.30	9,272 ⁶
1995	61,200	15.30	9,364	7.65	15.30	9,364
1996	62,700	15.30	9,593	7.65	15.30	9,593
1997	65,400	15.30	10,006	7.65	15.30	10,006
1998	68,400	15.30	10,465	7.65	15.30	10,465
1999	72,600	15.30	11,108	7.65	15.30	11,108
2000	76,200	15.30	11,659	7.65	15.30	11,659
2001	80,400	15.30	12,301	7.65	15.30	12,301

¹Changes in maximum taxable earnings are tied to an index of wages.

²Tax rates shown are effective rates that reflect adjustments for income tax credits.

³Nominal tax rate was 7 percent for both the employer and the employee. A 0.3-percent income tax credit reduced the effective tax rate for employees to 6.7 percent and the total rate from 14 to 13.7 percent.

⁴Since 1990, self-employed individuals have had a deduction from net earnings equal to half of the self-employment tax rate and an income tax deduction equal to half of the self-employment tax paid.

⁵Maximum tax includes the 2.9-percent Medicare tax rate on wages and earnings up to \$125,000 in 1991, \$130,000 in 1992, and \$135,000 in 1993.

⁶Since 1994, the earnings ceiling on the Medicare tax rate was removed. Although the maximum tax consequently became unlimited, values in the table reflect the 15.3-percent rate times the regular earnings ceiling.

Sources: Compson and Durst (1992); Publication 17, Internal Revenue Service, various years.

losses for tax purposes varies by type of farm. While about 80 percent of farms with sales over \$100,000 report a profit, only about 25 percent of retirement and lifestyle/other farms report a profit and pay self-employment taxes (table 19).

The increases in the social security and self-employment taxes combined with reductions in future retirement benefits (through increases in the age at which full benefits are available and higher taxes on benefits) have lowered the expected rate of return on social security tax payments. Thus, farmers and their employees have an incentive to minimize the taxes they pay. This has led to tax-driven changes in farm business operations designed to lower social security and self-employment taxes.

Federal Unemployment Taxes

The Federal Unemployment Tax Act (FUTA) is designed to provide unemployed workers with partial income during a temporary period of unemployment. Employer taxes are the primary source of funding for

the unemployment compensation program. Farmers who pay cash wages of \$20,000 or more for agricultural labor in any calendar quarter in the current or preceding calendar year, or employ 10 or more farm workers during 20 different weeks during the current or preceding calendar year, must pay the Federal unemployment tax. The current wage base is \$7,000 at a tax rate of 6.2 percent. Employers may claim a credit for paying State unemployment taxes. The credit is allowable up to 5.4 percent of the first \$7,000 in wages paid to an employee, reducing the Federal tax to as little as 0.8 percent of the first \$7,000 paid to each employee. Self-employed farmers are not subject to unemployment insurance coverage. In addition, noncash compensation for agricultural labor is exempt from the definition of wages for FUTA purposes.

Most operators of small farms, along with many larger farms that are highly mechanized and employ little hired labor, are not affected by the unemployment insurance tax. However, for those farms that require substantial amounts of hired labor, the unemployment insurance tax further increases their hired labor costs.

Table 19—Self-employment taxes for farm sole proprietors, 1996

Item	Small family farms				Large family farms	All farm proprietors	
	Limited-resource	Retirement	Lifestyle/other	Primary occupation Farm sales (\$1,000)			
				<\$100	\$100-\$250		
				<i>Number</i>			
Farmers paying tax	87,294	58,802	290,840	169,987	118,670	67,405	792,997
				<i>Percent</i>			
Share within group	40.0	22.4	24.9	50.5	78.1	81.3	35.7
				<i>\$1,000</i>			
Amount paid	46,985	103,411	697,475	272,102	359,016	356,133	1,835,122
				<i>Dollars</i>			
Average, payers	538	1,759	2,398	1,601	3,025	5,283	2,314
Average, all farms	215	395	598	809	2,362	4,298	827

Source: Compiled by USDA-ERS from special tabulations by Internal Revenue Service.

Federal Estate and Gift Taxes

The current Federal estate and gift tax system applies a unified tax rate structure and a cumulative lifetime credit to gifts and transfers of money and other property at death. Under the system, individuals can transfer a specified amount (\$675,000 in 2001) in cash and other property without Federal estate or gift tax liability as a result of the unified lifetime credit. Although every estate with more than \$675,000 in gross assets must file an estate tax return, the taxable amount is reduced by deductions for funeral expenses, administrative expenses, debts, charitable contributions, and transfers to one's spouse. As a result, less than half of all estates required to file a return are actually taxable. Gifts of up to \$10,000 annually to any individual are also exempt from tax and do not count against the amount exempted from tax by the unified credit. Transfers in excess of the exempt amount are taxed at a graduated rate structure that begins at an effective rate of 37 percent, rising to a maximum rate of 55 percent on taxable estates above \$3 million (table 20).

Estate and gift tax receipts have historically accounted for a relatively small share of total annual Federal revenues. The receipts from the Federal estate and gift tax for fiscal year 1999 are estimated at \$25.9 billion, less than 2 percent of total Federal revenues. While the aggregate importance of estate and gift taxes is small relative to other Federal government revenue sources, the potential impact of these taxes on an individual or

group of individuals, such as farmers and other small business owners, can be substantial.

The impact of Federal estate and gift taxes on the farm sector was an important issue during the late 1970's. During that period, the appreciation in land values, the increase in farm size, and the rising investment in farm machinery and equipment increased estate values and taxes substantially. Congressional concern that increased estate and gift taxes might cause the break-up of some family farms and other small businesses resulted in the enactment of two special provisions in the Tax Reform Act of 1976. These provisions are the special use valuation of farmland and the installment payment of estate taxes. Concern for the effects of the Federal estate tax on farmers and other small businesses was also the primary impetus for the changes enacted as part of the Taxpayer Relief Act of 1997, which included a new deduction for qualified family-owned business interests.

Special Use Value

The value of property for estate tax purposes is generally the fair market value at the date of death. However, if certain conditions are satisfied, real property included in the estate which is devoted to farming or other closely held business use may be valued at the property's value as a farm or other closely held business rather than its fair market value. To be considered qual-

Table 20—Federal estate and gift tax rate schedule, 2001

Taxable estate	Tax liability is ¹	Plus	Of amount over
<i>Dollars</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>
10,000 and under	0	18	0
10,001- 20,000	1,800	20	10,000
20,001- 40,000	3,800	22	20,000
40,001- 60,000	8,200	24	40,000
60,001- 80,000	13,000	26	60,000
80,001- 100,000	18,200	28	80,000
100,001- 150,000	23,800	30	100,000
150,001- 250,000	38,800	32	150,000
250,001- 500,000	70,800	34	250,000
500,001- 750,000	155,800	37	500,000
750,001- 1,000,000	248,300	39	750,000
1,000,001- 1,250,000	345,800	41	1,000,000
1,250,001- 1,500,000	448,300	43	1,250,000
1,500,001- 2,000,000	555,800	45	1,500,000
2,000,001- 2,500,000	780,800	49	2,000,000
2,500,001- 3,000,000	1,025,800	53	2,500,000
3,000,001 and over	1,290,800	55	3,000,000

¹ Before credits and phase-out of graduated rates for estates with taxable amount in excess of \$10,000,000.

Source: Internal Revenue Code Section 2001.

ified property, the property must be transferred to a qualified heir,⁵ must have been used as a farm for 5 years during the 8-year period ending with the decedent's death, the decedent or a member of the decedent's family must have participated in the farm business, the value of the qualified real property must equal at least 25 percent of the estate, and the combined value of the real and other business property must be at least 50 percent of the gross estate.

The method used to value farmland for use value purposes is to divide the 5-year average annual gross cash or share rental for comparable land in the area, minus State and local real estate taxes, by an average of the annual effective interest rate for all new Federal Land Bank (FLB) loans for the year of death. For most farms, the use valuation law can reduce the value of the real property portion of qualifying estates by 40 percent to 70 percent, with the largest reductions occurring for farmland which has residential or commercial development potential. All or a portion of the estate tax benefits obtained under the special use valuation provision are recaptured if the property is sold to a nonfamily member or if the property ceases to be used for farming or other closely held business purpose within 10 years of the decedent's death.

The Tax Reform Act of 1981 increased the maximum reduction in value under special use value from \$500,000 to \$750,000 for estates of those dying in 1983 or later. In the absence of other changes, this change would have increased the incentive to invest in farmland for estate tax purposes. However, the Economic Recovery Tax Act of 1981 made other substantial changes in estate and gift tax provisions. These included reductions in marginal estate and gift tax rates, an increase in the annual gift tax exclusion, an increase in the unified credit and the allowance of an unlimited marital deduction. The net effect of these provisions was to substantially increase the amount of property that could be transferred tax free. The cumulative effect of these changes reduced the incentive for many estates to qualify for special use value. Nevertheless, for those estates in need of additional tax saving techniques, the special use value provision continues to offer significant tax benefits. Even with reduced Federal estate tax rates, the maximum estate tax savings available under special use value is \$440,000. In addition, the liberalization of the qualification requirements

for special use value lowered the barriers which might otherwise have discouraged some investors from seeking special use value benefits. Thus, the special use value provision may have an unintended impact on the farm sector. The potential estate tax savings may have encouraged additional purchases while the recapture provisions discouraged sales. The net effect has been reduced availability but increased demand for farmland.

Installment Payment of Estate Tax for Closely Held Businesses

A second special provision for farmers and other small business owners is aimed at the liquidity problem that these businesses can face as a result of having a large portion of the estate in land and other relatively illiquid business assets. Federal estate and gift taxes generally must be paid within 9 months of the date of death. However, when at least 35 percent of an estate's value is a farm or closely held business, estate taxes may be paid over an additional 14-year period. Prior to 1998, the interest rate on taxes due on the first \$1 million in value of qualifying assets was 4 percent. For amounts above \$1 million, the rate was the normal rate applicable to underpayments of tax. Interest paid on deferred estate taxes was deductible for either estate or income tax purposes.

Beginning in 1998, the interest rate on the first \$1 million in taxable value (above amounts exempted by the unified credit) of the farm or other closely held business was reduced to 2 percent. The interest rate on amounts above \$1 million in taxable value was reduced to 45 percent of the rate applicable to underpayments of tax. However, the interest is not deductible for either estate or income tax purposes. These changes to the installment payment provision reduced both the interest expense and the administrative burden associated with installment payments. The amount of estate tax eligible for the 2-percent interest rate will increase from \$153,000 to \$435,000 by 2006. As a result, a \$2-million estate qualifying for the installment payment provision would have the present value of its tax cut in half compared with an estate required to pay Federal estate taxes in full within 9 months of death.⁶ This change combined with the increase in the amount of property that can be transferred tax free should greatly reduce the liquidity problem that some farm heirs might otherwise experience as a result of Federal estate taxes.

⁵ A qualified heir means a member of the decedent's family, including an ancestor, spouse, lineal descendants, and parents and their descendants.

⁶ Assumes a 2-percent interest rate and an 8-percent discount rate.

Indexing for Certain Estate and Gift Tax Provisions

The value of various estate tax provisions has not been changed for several years. As a result, the real value has declined significantly. Beginning in 1999, the \$10,000 annual exclusion for gifts, the \$750,000 cap on the reduction in value under special use valuation, and the \$1-million ceiling on the value of a closely held business eligible for the special low interest rate under the installment payment provision were indexed for inflation. While indexing will not restore the loss in value, it will maintain the real value at current levels in the future.

Deduction for Qualified Family-Owned Businesses

Beginning in 1998, a new deduction for the first \$675,000 of qualified family-owned business interests was enacted. The deduction is in addition to any benefits from special use valuation and the unified credit. However, the total amount excludable from this provision and the unified credit is limited to \$1.3 million. Thus, as the amount shielded from tax by the unified credit increases, the additional exempt amount for farms and closely held businesses declines to \$300,000 by 2006 and thereafter (table 21).

A qualified family-owned business interest is any stake in a business with its principal place of business in the United States in which one family owns at least 50 per-

cent of the business, two families own at least 70 percent, or three families own at least 90 percent, as long as the decedent's family owns at least 30 percent. To be eligible for the deduction, such interests must represent more than 50 percent of a decedent's estate, the decedent or a member of the family must have owned and materially participated in the business for at least 5 of the 8 years before death, and each qualified heir or a member of the heir's family must materially participate in the business for at least 5 of each 8-year period ending within 10 years after the decedent's death. The benefits from the deduction are recaptured if the qualified heir fails to meet the material participation requirements, the qualified heir disposes of the business interest other than to a family member or through a qualified conservation contribution, the principal place of business is moved outside the United States, or the heir loses U.S. citizenship.

The new exclusion for farms and other family-owned businesses combined with the increased unified credit is expected to reduce the number of taxable farm estates by nearly 50 percent. The total taxes paid are expected to drop by about one-third. This new deduction along with the other changes to the Federal estate tax provisions should reduce, if not eliminate, the need to sell farm assets to pay Federal estate taxes. Nevertheless, the targeting provisions associated with the new deduction are extremely complex and contain a number of pitfalls for the uninformed. Qualifying for the new deduction will require careful planning, further increasing the administrative burden and expense associated with the estate tax.

Table 21—Potential Federal estate tax exemption amount from unified credit and family-owned business deduction

Year	Unified credit exclusion amount	Family business deduction amount	Total exclusion amount ¹
		<i>Dollars</i>	
1987-97	600,000	0	600,000
1998	625,000	675,000	1,300,000
1999	650,000	675,000	1,300,000
2000-01	675,000	675,000	1,300,000
2002-03	700,000	675,000	1,300,000
2004	850,000	675,000	1,300,000
2005	950,000	675,000	1,300,000
2006	1,000,000	675,000	1,300,000

¹Total amount exempted by unified credit and family business deduction cannot exceed \$1,300,000.

Source: Compiled by USDA-ERS from information contained in Internal Revenue Code Sections 2010 and 2057.

Exclusion for Land Subject to Conservation Easement

Since 1981, a deduction has been allowed for Federal income, estate, and gift tax purposes for a contribution of a qualified real property interest to a charity or other qualifying organization exclusively for conservation purposes. A qualifying real property interest includes a perpetual restriction or easement on the use of real property. A conservation purpose is defined as (1) the preservation of land for the general public's outdoor recreation or education, (2) the preservation of a natural habitat, (3) the preservation of open space for the scenic enjoyment of the general public or in furtherance of a governmental conservation policy, and (4) the preservation of historically important land or certified historic structures.

Beginning in 1998, in addition to the reduction in value for the conservation easement, an exclusion is provided for up to 40 percent of the value of land in an estate that is subject to a qualified conservation easement and located within 25 miles of a metro area, a national park or wilderness area, or within 10 miles of an urban national forest. The decedent or a member of the decedent's family must have owned the land for at least 3 years prior to the date of death and the donation must have been made by the decedent or his or her family. The exclusion is based on the value of the property after the conservation easement is placed, and does not include any retained development rights to use the land for any commercial purpose except those supportive of farming. If the value of the conservation easement is less than 30 percent of the value of the land for purposes of the exclusion, the exclusion percentage is reduced 2 percentage points for each percentage point below 30 percent. The maximum exclusion is limited to \$400,000 in 2001 but increases to \$500,000 in 2002 and thereafter.

Granting a qualified conservation easement is not treated as a disposition that would trigger the recapture of special use valuation benefits, and the existence of a qualified conservation easement does not affect eligibility for special use valuation. Thus, the exclusion can be used in combination with the special use valuation provision.

The exclusion provides an additional incentive to donate a conservation easement within the designated areas. However, given the increased unified credit, the availability of special use valuation, and the new deduction for family-owned business interests, the number of landowners who are subject to the Federal estate tax and who would benefit from the additional exclusion may be relatively small. Geographic targeting of conservation easements will also limit the pool of potential donors. Nevertheless, those farmers willing to forgo potential future development gains can transfer an additional \$500,000 in farmland to their heirs without affecting the operation of the farm business.

Implications of Federal Estate and Gift Tax Changes

The amount of property that can be transferred tax free has increased substantially since 1980. The Economic

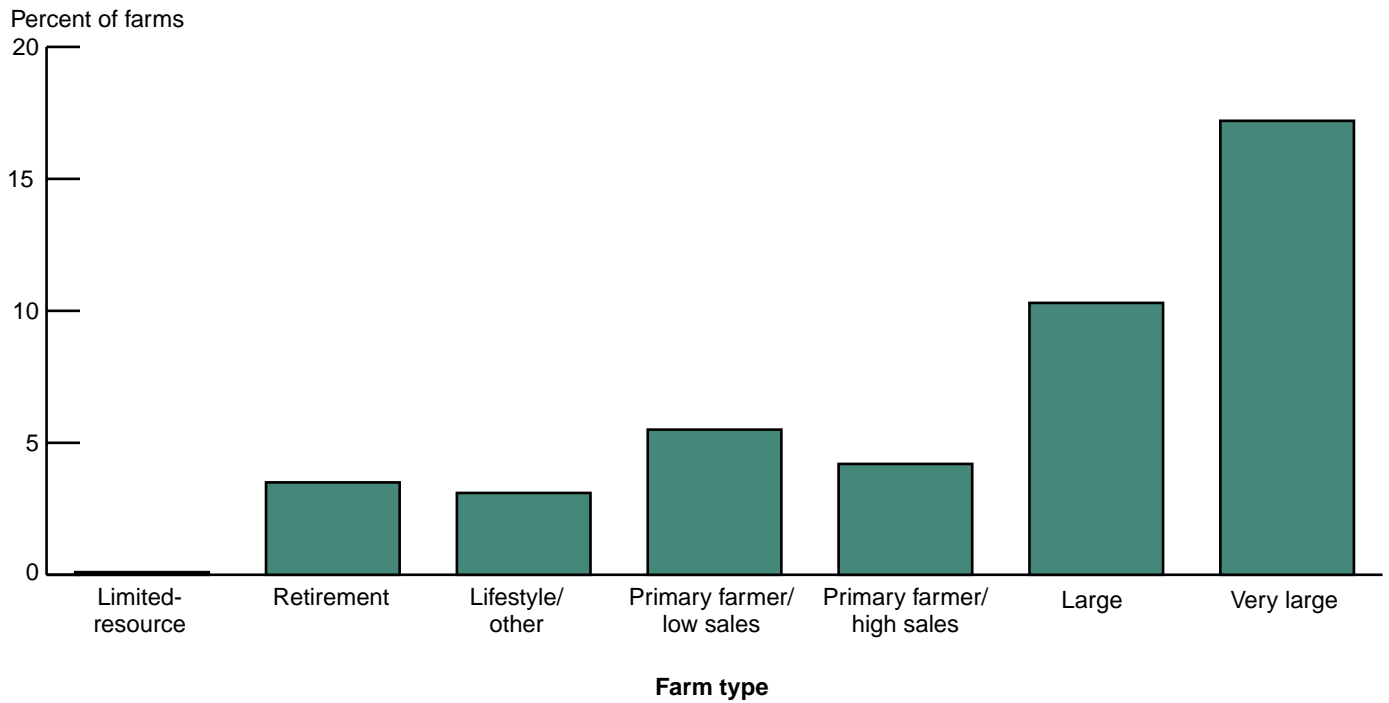
Recovery Tax Act of 1981 increased the unified credit each year from 1982 through 1987, from an effective exemption amount of \$225,000 in 1982 to \$600,000 in 1987. The exemption amount remained the same until the 1997 Act which increased it to \$1,000,000 by 2006 (table 21).

The combination of the new family business deduction and special use value will substantially reduce the number of farm estates subject to the Federal estate tax. Those that are eligible for these provisions but remain taxable are primarily farming occupation with high sales, large or very large farms (fig. 7). The majority of other farms that remain taxable are not eligible for special use valuation or the family business deduction due to the share of nonfarm assets in the estate. For lifestyle/other and retirement farms, average nonfarm net worth exceeds average farm net worth. For lifestyle/other farms, this may reflect the relative importance of the farm and nonfarm activities. For retirement farms, it may reflect the disposition of farm assets in anticipation of or during retirement.

Based on simulations using 1998 farm-level survey data, about 4 percent of all farm estates would owe Federal estate and gift taxes, slightly higher than the 2 percent of all estates. Of the 31,161 estimated farm estates for the 1998 year, only 5,394 had assets in excess of \$625,000 and would be required to file an estate tax return (fig. 8). After deductions, special use value and the family business deduction, only 1,219 of the estates would be taxable. The average tax due was estimated at \$600,000 on an average net worth of \$2,800,000 for an average tax rate of 21 percent. The special use valuation and the family business deduction reduced both the number of taxable estates and total Federal estate taxes for all farm estates by about half.

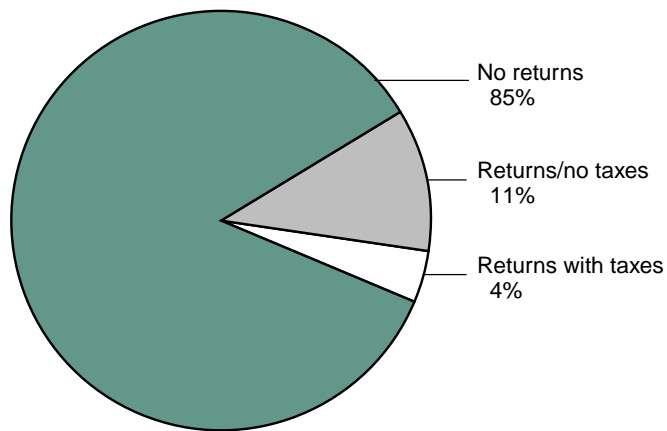
The changes enacted in 1997 reduced the number of farm estates that will be subject to tax but increased the favored treatment of farm and other business assets over other assets for estate tax purposes. Thus, the family-owned business deduction combined with other targeted provisions will encourage older farmers to retain ownership of land, livestock, machinery, and other farm assets until death. This will increase the amount of farm property transferred to heirs but may reduce opportunities for others to enter farming.

Figure 7
Share of farm estates that owe Federal estate taxes by farm typology, 1998



Source: Estimated by ERS-USDA from ARMS data.

Figure 8
Share of farm estates with returns and taxes, 1998



Source: Estimates by USDA-ERS from ARMS data.

Tax Policy Implications

Individuals frequently change their behavior in response to economic incentives. Tax policies provide a variety of economic incentives that encourage certain activities or investments by providing more favorable tax treatment relative to other activities or investments. To the extent that tax policy and not market forces is the primary determinant of how economic resources are allocated, economic efficiency may not be optimal from the broader resource allocation perspective. In addition, tax incentives can have impacts that are unintended or counter to other government policy goals. The tax provisions outlined throughout the preceding chapters create incentives for farmers and nonfarm investors in farm assets to behave in certain ways and to create certain observable results that follow. Implications of Federal tax policies of significance to farmers are particularly notable in tax burdens, land prices and the ownership of capital assets, the cost of capital relative to labor, the size and organizational structure of farms, management and husbandry practices, and product supplies and prices.

Tax Burdens

The various special farm tax provisions affect both farmers' effective tax rates and their tax burdens relative to all other taxpayers. Research examining the effects of Federal tax policies on farmers' tax burdens prior to the 1980's concluded that special agricultural tax preferences reduced the tax burden on farm income (Davenport, Boehlje, and Martin). Individuals with substantial farm income enjoyed a substantially lower tax burden than individuals with no farm income. Furthermore, the gap between farm and nonfarm tax burdens widened with increasing levels of income. However, that research compared tax burdens of farmers with all other taxpayers and not with other business owners. Therefore, whether farm tax provisions provided more favorable treatment to farmers than other business owners who also benefit from targeted tax provisions is unclear. This research also found that the Federal income tax was less progressive than suggested by the marginal tax rate structure. For those farmers whose primary source of income was from farming, Federal income tax rates were found to be relatively flat suggesting that larger, higher income farmers were able to utilize investment incentives, capital gains, and other tax provisions to offset higher marginal income tax rates (Sisson).

The tax structure has changed substantially since this research was conducted. Tax law changes in the early 1980's reduced marginal tax rates and provided significant investment incentives, while legislation in the mid-1980's reduced marginal income tax rates and eliminated much of the preferential treatment that agriculture received, particularly for investors who utilized farm investments as a tax shelter. Nevertheless, while the average effective Federal income tax rate increased from 14 percent in 1987 to just over 15 percent in 1990, tax rates were slightly less progressive (Compton and Durst, 1992).⁷ The differences in tax rates for farm and nonfarm taxpayers were also reduced by the elimination of income averaging, the capital gains exclusion, the investment tax credit, and other important farm tax provisions.

Two new tax brackets for high-income taxpayers were added in 1993, increasing the maximum marginal tax rate from 31 to 39.6 percent. This reversed the trend of lower marginal tax rates that began in 1981. For low-income households, the earned income tax credit was expanded in 1990 and 1993 by increasing the benefit levels and simplifying eligibility rules. Thus, while the overall tax rate increased from 15 percent to 16 percent between 1990 and 1994, an analysis of IRS data confirms that average effective tax rates became more progressive – increasing for high-income taxpayers because of the new tax brackets and decreasing for low-income farmers due to the expansion of the earned income tax credit (Durst and Monke, 1998).

Since 1997, farmers have benefited from a variety of new tax provisions including income averaging, an increased self-employed health insurance deduction, expanded capital expensing and reduced tax rates for capital gains. These provisions are likely to reduce the progressivity while more general tax provisions such as the new education and child tax credits should primarily benefit lower and middle income farmers. Thus, while these changes are expected to reduce the average effective tax burden of farmers by as much as 2 percentage points, the effect on progressivity and on farm tax burdens relative to other taxpayers is unclear.

⁷The average effective tax rate equals the amount of tax paid after all tax credits divided by an expanded measure of income which includes adjusted gross income plus statutory deductions, tax-exempt interest, and other variables.

Capital Investment: Capital/Labor Ratios

Agriculture is a capital-intensive industry. Throughout much of the 1970's and early 1980's, farming became increasingly capital intensive. Accompanying this increased use of capital has been a sharp, long-term decline in the use of labor. The number of farm workers has declined steadily over the last three decades. The result has been a sharp increase in capital/labor ratios in agriculture. Tax policy is one of a number of factors that may have played a role in this trend. Tax policies have historically provided incentives for investment in depreciable capital, while taxes have been imposed on the utilization of labor.

Prior to the Tax Reform Act of 1986 and the Social Security Reform Act of 1983, Federal tax provisions provided a number of incentives for farmers to substitute capital for labor. Accelerated depreciation and the investment tax credit greatly reduced the cost of capital while labor costs continued to rise due to increases in social security and other labor taxes. The Tax Reform Act of 1986 represented a significant shift in tax policy incentives for investment in depreciable capital. The investment tax credit was eliminated, while depreciation periods for most farm assets were lengthened. The result was a significant increase in the after-tax cost of capital. At the same time, labor taxes continued to increase primarily as a result of increases in social security taxes. The net effect of the changes is unclear. While the changes to the cost of capital were of a greater magnitude, little or no empirical evidence exists regarding current tax incentives to substitute capital for labor. Regardless, incentives for capital investment are clearly less than existed in the late 1970's and early 1980's.

A number of studies have examined the effect of tax policy on optimal equipment replacement decisions. One of the early studies found that the investment tax credit had only a minor impact on the farm machinery replacement decision (Chisholm). However, later studies found that the investment tax credit significantly reduced the replacement age of farm machinery and that this reduction resulted in the substitution of capital for labor. The effect was found to be greater for higher income taxpayers (Kay and Rister). A later study found similar results for both accelerated depreciation and the investment tax credit (Bates, Rayner, and Custance).

Studies conducted following the Tax Reform Act of 1986 are consistent with these earlier studies. The opti-

mal replacement age for farm assets was shown to be inversely related to the amount of the investment tax credit and the present value of depreciation allowances. Therefore, these studies concluded that the abolition of the investment tax credit and reductions in the present values of tax depreciation allowances would increase optimal replacement ages and reduce optimal replacement rates (Smith). However, little or no work has been done regarding the effect of social security and other labor taxes on the cost and use of labor in agriculture. These taxes increase the cost of using labor directly and indirectly through the increased costs associated with the recordkeeping requirements necessary to comply with the taxes. Of the payroll taxes, social security is clearly the most significant. The contribution rate and amount of wages subject to the tax have increased dramatically in recent years. Unemployment insurance, on the other hand, is imposed at a much lower rate and on a smaller segment of the farm labor force. Nevertheless, the combined effect of these and related State taxes such as workers' compensation insurance is to increase the cost of farm labor.

In summary, tax incentives for capital investment in the early 1980's clearly encouraged the use of capital in agriculture, while payroll and other labor taxes discouraged the use of farm labor. However, this tax-induced substitution of capital for labor may have been relatively minor compared with other nontax factors. Tax policy merely strengthened an existing trend caused primarily by other factors such as technology developments. Therefore, while the overall reduction of investment incentives should result in reduced capital investment relative to prior laws, this clearly does not suggest a reversal of the trend to substitute capital for labor.

Land Prices and Ownership of Capital Assets

Farmland is a key asset because the supply of land available is relatively more limited than other farm assets. Low land prices facilitate entry into farming while high land prices make entry difficult. If a prospective farmer is unable to buy land or to arrange a rental agreement with a landlord, there is no way to enter land-based farming. Farmland historically has been a good tax investment during inflationary periods and has, therefore, been attractive to both farm and nonfarm investors. Its value as an inflationary hedge comes both from the deductibility of nominal interest payments on loans and the appreciation of land values on a tax-deferred basis.

Capital gains taxes are levied on nominal returns. Taxing both real and inflationary gains makes the effective tax rate on the real return (the capital gains tax divided by the real capital gain) nearly always greater than the marginal tax rate. If the real rate of return is low relative to inflation, then most of the nominal capital gain is due to inflation and the effective tax rate on the real return could exceed 100 percent.⁸ Longer holding periods help reduce the effective tax rate by compounding the real rate of return, but effective tax rates often remain high relative to the marginal tax rate. Although inflation also increases effective tax rates on interest and dividends, the effect on capital gains is often perceived to be greater because of the magnitude of capital sales and the proportion of the sale price that gains represent after long holding periods.

Effective tax rates always exceed the taxpayer's marginal bracket in an inflationary environment unless part of the nominal gain is excluded from taxation. If part of the gain is excluded, then the effective rate may drop below the taxpayer's marginal rate under certain combinations of holding periods and real rates of return. Since lowering capital gains tax rates below ordinary tax rates is effectively similar to providing an exclusion, current law helps to reduce the effect of taxing inflationary gains. For example, using a hypothetical 30-year holding period with 2-percent annual real capital appreciation, 4-percent inflation, and tax law from 1996, an individual in the 28-percent ordinary tax bracket faced effective capital gains tax rates on real returns of 52 percent. Under current law with the 20-percent capital gains tax rate (an effective exclusion of 29 percent), the effective tax rate in the scenario drops to 37 percent. Under pre-1986 tax law with the 60-percent exclusion, the scenario would result in a 21-percent effective tax rate on the real return.

Tax timing issues also benefit the investor who borrows. Deductible interest expenses reduce tax liability during the current year, while capital gains taxes are deferred until the asset is sold. Deferring capital gains taxes slightly increases the implicit after-tax rate of return. This increases with longer holding periods and can be especially important for those who intend to hold assets indefinitely.

Before the current policy of a maximum tax rate on capital gains, deferring capital gains until an asset was

⁸For example, after a 1-year period with 3-percent inflation and a 4-percent nominal capital gain, a 25-percent capital gains tax yields a 100-percent effective tax on the real return.

sold could create problems at the time of sale because unusually large gains may have pushed the taxpayer into a higher marginal tax bracket. In such cases, the potential for higher taxes may have been reduced somewhat by making land sales on the installment method or by selling the land in smaller parcels over time.

Farm Tax Shelter Opportunities

Lower capital gains tax rates increase incentives to invest in assets that generate capital gains and to alter management practices to maximize such income. In farming, this increases farm investment especially in livestock and farmland. Preferential capital gains treatment may accelerate the growth in the number of large, investor-owned farms and make obtaining or controlling the means of production (primarily farmland and production facilities) more difficult for some smaller family farms. However, tax shelter opportunities are more constrained now than they were before the Tax Reform Act of 1986.

The use and abuse of tax provisions available in farming before the Tax Reform Act of 1986 is well documented (Long; Davenport, Boehlje, and Martin). Before the 1986 Act, both farm and nonfarm investors were encouraged to invest more in favored activities. Several provisions enacted in recent years, including those contained in the Tax Reform Act of 1986, restrict such investments. These include limits on the ability to use the cash method of accounting, limits on the current deductibility of development costs, restrictions on prepaid expenses, and passive loss rules that limit the ability of some individuals to deduct losses. While these changes and lower marginal tax rates have reduced both the incentive and the opportunity to make tax-shelter investments in farming, they have not eliminated all such opportunities.

Tax laws encourage financing land and other assets with debt, particularly in an inflationary environment. Since nominal interest expenses for businesses are fully deductible for tax purposes, the value of the tax deduction equals the nominal interest multiplied by the tax rate. For borrowers with fixed nominal interest rate contracts, an increase in inflation reduces the effective real cost of borrowing. The real cost of borrowing is also reduced by the nominal tax benefit. Therefore, if inflation increases while a borrower holds a fixed interest rate loan, the real after-tax cost of borrowing on a fixed-rate loan will decrease and could even become negative after combining the effects of inflation and taxes. The reduction in borrowing costs is greater for

individuals in higher marginal tax brackets.⁹ These relationships increase the incentive to finance investments with debt, particularly for assets that generally appreciate in value during inflationary periods, and for those in higher income tax brackets.

Inflation also creates the expectation that asset values will grow over time. Economic returns become divided between current cash returns and deferred capital gains returns. When current returns are low relative to asset values and interest expenses, loan payments on debt-financed assets can exceed the cash-flow from those assets. The negative cash-flow can provide a tax shelter if the owner has other income to shield from taxes. The net effect can tend to restrict land purchases to those with sufficient outside resources to meet the negative cash-flow requirements. This creates barriers to entry and increases both the concentration of land ownership and the reliance on rented land.

Because the net tax benefits are greatest for high-bracket taxpayers who leverage their ownership with debt, they can bid substantially more for land. High-bracket taxpayers are frequently able to outbid lower bracket taxpayers when appreciation rates are high compared with annual cash returns. Furthermore, high-bracket taxpayers prefer capital gain income to ordinary income and are willing to accept low cash returns as long as the asset appreciates in value. Thus, the established farmers or nonfarm investors may be able to outbid beginning farmers in the real estate market. In contrast, the beginning farmer is normally more concerned with cash-flow than appreciation. Thus, beginning farmers have difficulty competing for real estate and obtaining ownership of farmland. The beginning farmer may, however, have the opportunity to rent farmland from owners who acquire real estate more for its appreciation than its cash-flow generating capacity.

Lock-in effect

Because increases in the value of property are not taxed until assets are sold and gains are realized, potential tax liabilities increase as gains accumulate and give taxpayers a growing incentive to hold onto assets rather than selling and reallocating funds. This incentive to continue to hold property – the lock-in effect – is compounded by estate planning. At death, unrealized capital gains that occurred during life are fully exempted

from the income tax. When ownership is transferred to the heirs, the basis for determining gain upon the sale of the asset is stepped-up to the fair market value when the decedent died. The prospect of gaining tax exemption through death is an incentive not to sell the asset. From the resource allocation perspective, the lock-in effect encourages owners to continue to hold assets that may even earn below-average risk-adjusted returns, because they believe that tax deferral with a substandard return is better than realizing gains and paying taxes in order to reallocate funds. Either way, the lock-in effect reduces the land available for purchase but increases land for rent.

In farming, land is the most common asset affected by the lock-in effect. A reduced supply of land available for sale increases the price of land in the face of unchanging demand. A person expecting to hold the land until death as an investment for heirs would be able to bid even higher than a buyer who at some point expects to realize the appreciation and pay tax on it. That economic rents accrue to asset owners is important for the distribution of returns from farming. The average capital gain on farmland purchased in 1966 and held for 30 years represents about 80 percent of the value of the land.

Preferential capital gains taxes decrease, but do not eliminate, the lock-in effect. Farmers and farm assets may be less responsive to preferential tax rates because capital assets that are part of an ongoing farm business may be difficult to sell without disrupting production. Farm businesses are also not very mobile, reflected in part by the low turnover of farmland; only about 3 percent is traded at market prices each year (Rogers and Wunderlich). Sellers of farm assets also face much higher transaction costs compared with owners of corporate stock or more liquid assets. Furthermore, about 40 percent of farmland is owned by individuals age 65 or older who are consequently better able (and increasingly motivated) to avoid capital gains taxes completely by holding their land until they die. Estate tax provisions that require continued business and asset ownership, such as special use valuation and the new family business deduction, also discourage current owners from selling business assets. Owners with equity can easily access unrealized gains without incurring a tax liability by borrowing against the property.

The magnitude of the lock-in effect may be measured by computing the additional rate of return that a new investment would need to earn over the existing rate of return to compensate for realizing capital gains taxes

⁹For example, after a 1-year period with 3-percent inflation and a 4-percent nominal capital gain, a 25-percent capital gains tax yields a 100-percent effective tax on the real return.

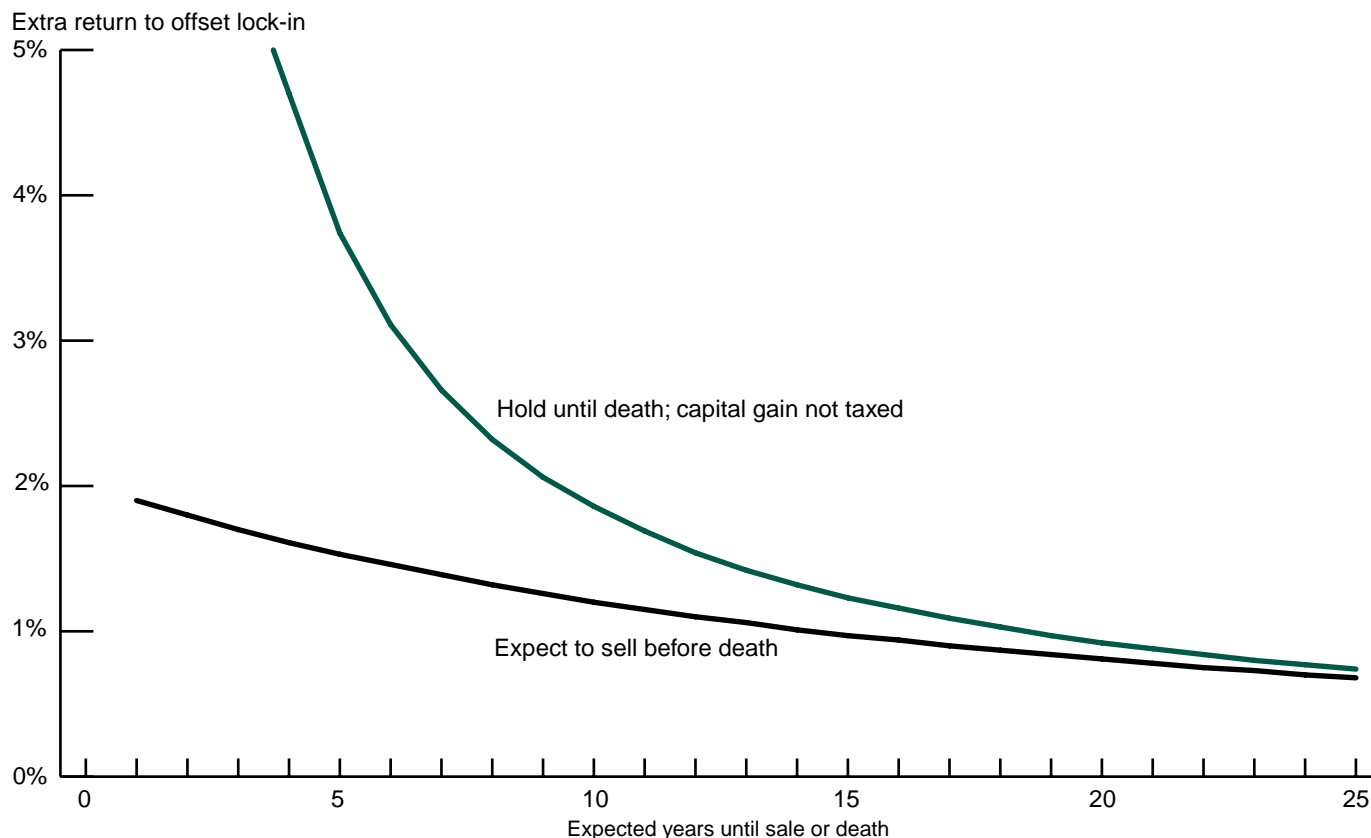
today if a locked-in asset were sold (Minarik). The premium required on the new asset to make the switch increases the longer that an existing asset has been owned, the shorter the funds are expected to be reinvested, the higher the income tax rate or the asset's growth rate, and the more likely the existing asset is to become part of an estate. Under current law, and assuming the owner's life expectancy is about 10 years, the proceeds of average U.S. farmland owned for 25 years would need to earn a 2-percent bonus return to compensate for realizing capital gains taxes if it were sold and reinvested (fig. 9). If the reinvested asset was not expected to become part of an estate, the extra return needed is smaller and the difference is less noticeable as the future holding period exceeds 15-20 years. For many investors, such additional returns may be difficult to achieve in the same asset risk class, although specific parcels of land or corporate stocks may offer opportunities. Consequently, many long-term

landowners will continue to hold land rather than sell, even with current preferential capital gains treatment.

Management Practices

Total returns can be characterized as coming from two sources – the agricultural product and the tax system (Davenport, Boehlje, and Martin, p. 28). Maximizing these returns requires different management skills and sometimes introduces conflicting factors into the decision making process. The return from the agricultural product depends on prices, yields, weather, technology, interest rates, and the husbandry of the farming entrepreneur. The return from the tax system depends on careful tax planning and the tax rate of the farmer. Farmers who are not able to increase their total return by managing their taxes must survive on the return from farm products alone, and they can find themselves at a competitive disadvantage to farmers who are able to earn high returns from both sources.

Figure 9
The extra return needed to offset the lock-in effect is greater if the asset can be passed through an estate, but declines the longer the new asset will be owned



Note: Figure assumes a 20-percent capital gains tax rate and that the existing asset has been owned 25 years, yielding an annual 6-percent capital gain and 10.5-percent total return (generally representative of average U.S. farmland).
 Source: Simulation by the authors.

Due to numerous tax incentives, farm management practices that maximize before-tax returns may not maximize after-tax returns. The optimal management practice to maximize after-tax returns may differ from standard management practices that are not biased by tax preferences. Economic efficiency suffers when optimal plant and animal husbandry practices are altered to maximize after-tax returns.

In the early 1880's, an often-cited example of the influence of tax incentives on farm management practices was the farrow-to-finish hog industry. Under normal production practices, a breeding sow would be used for several farrowing cycles before being culled because, after the first litter, sows usually produce larger litters and provide better care for their offspring. In such an operation, perhaps about 20-25 percent of gilts (young females) would be kept for breeding as older sows are culled, while the balance would be sold as soon as they were ready for market. Sales of breeding sows would be a fairly small percentage of total sales. However, because tax law allows breeding sows held longer than 1 year to be eligible for long-term capital gains treatment, a strong incentive existed to increase the proportion of sales eligible for preferential tax treatment by breeding all gilts at least once. While hogs raised to market weight are younger than 1 year, a one-litter sow is usually just over 1 year old and thus eligible for capital gains treatment. The practice of breeding gilts for only one litter, despite their inferior farrowing and mothering qualities, was adopted for the sole purpose of reporting more sales as capital gains rather than as ordinary income. An optimal husbandry practice is weakened by economic incentives from tax law.

In addition to the lower income tax rates available for sales of breeding livestock, another incentive exists to increase the proportion of animals that are used in the trade or business rather than being held for sale. Sales of animals used in the trade or business (for example, breeding livestock) are not included with regular farm business earnings and are therefore not subject to the self-employment tax. Thus, as self-employment tax rates have increased over the past two decades, the incentive has grown to retain livestock for breeding purposes and to cull others sooner.

In the early 1980's, favorable capital cost recovery policies (such as depreciation, expensing, and investment tax credits) stimulated investment in single-purpose agricultural buildings for dairy, poultry, and hogs and encouraged faster replacement of depreciating equipment or the acquisition of larger equipment. For the

most part, these incentives were reduced by the Tax Reform Act of 1986 which eliminated the investment tax credit and lengthened depreciation periods for both machinery and single-purpose structures.

Reductions in marginal tax rates and a reduced differential between the tax rate on ordinary business income and capital gains income has reduced the incentive to adopt such practices. Incentives to invest in depreciable property near the end of a tax year to qualify for a full year's tax benefit have also been reduced. Nonetheless, capital expensing allowances may still encourage farmers to purchase or replace depreciable equipment based not only on the need for productive infrastructure but also for tax reasons.

Product Prices

Tax policies that encourage commodity production but that do not change consumer demand tend to increase supply and reduce prices in the long run. Since most agricultural products have inelastic demand, the result is lower total farm revenue for the affected commodity than if the tax policy had not affected production and prices. Consumers, however, may benefit from greater supplies and lower prices.

General equilibrium models comparing the effects of taxes across agriculture and other sectors of the economy reveal increased resource use in agriculture and greater farm output. Eliminating tax differences would raise the model's household price for food by 2 percent to 4 percent as farm output decreased, particularly shifting away from livestock and feed grains into oilseeds and other crops (Hertel and Tsigas, 1988).

Favorable tax treatment throughout the late 1970's and early 1980's stimulated investment in the agricultural sector and resulted in increased production of many commodities – especially livestock and perennial crops that benefited from rules concerning the cost of developing capital assets. The investment tax credit and accelerated depreciation deductions encouraged farmers to buy machinery and equipment and to build new farm structures. Single-purpose agricultural structures used in dairy, poultry, and hog operations were popular. The additional investment expanded production capacity, brought more acreage into production, and enhanced productivity – all increasing production and putting downward pressure on prices.

The Tax Reform Act of 1986 reduced these incentives to expand production. Repeal of the investment tax

credit and a return to slower depreciation schedules for farm machinery reduced the pace of investment. Efforts to eliminate deductions for expenses to drain or fill wetlands and to reduce incentives for center-pivot irrigation systems have slowed the conversion of marginal land into cropland.

However, the ability to immediately expense a limited amount of depreciable business property, rather than depreciate it over a specified number of years, still provides some tax benefits that promote investment and increase output, although at a much reduced rate. The return to preferential capital gains tax rates in the Taxpayer Relief Act of 1997 has increased incentives to invest in capital assets such as breeding and dairy livestock and farmland and may tend to support higher production levels that could continue to put downward pressure on prices.

Farm Structure

Federal tax policy can have important implications for various structural aspects of farming. These include the number and size of farms, the value and incentive to buy and sell assets, especially farmland, and the legal form in which the business is operated.

The Number and Size of Farms

Throughout the late 1970's and early 1980's, the number of very small noncommercial farms (1-49 acres) and the number of large commercial farms (500 acres or more) increased while the number of farms in the 50- to 499-acre size class decreased. Information from the 1987 *Census of Agriculture* regarding farm size distribution suggested a continuation of this trend. Between 1982 and 1987, the total number of farms declined with much of the decline concentrated in the middle of the farm size distribution. This trend has continued in the 1990's. From 1992 to 1997 the number of farms with between 50 and 499 acres declined by over 15,000 farms, while the number of farms smaller than 50 acres increased by over 10,500 farms. As a result, both small noncommercial farms and very large commercial farms continue to increase as a proportion of all farms. Factors cited for this change in the number of large farms include technology and the desire to achieve income levels and standards of living equal to those of individuals in the nonfarm sector. Personal preferences for a rural or farm lifestyle, while relying on off-farm income to support the household, contribute to the growth in the number of small farms. Tax policies also have supported this change in farm size distribution.

Federal tax policies applicable to farming tend to reinforce those factors contributing to an increase in the number of very small and large farms. These tax provisions provide the greatest benefits to those farmers with relatively high levels of farm or off-farm income. Generally, very small farms do not generate enough farm income to support a farmer and the family. These farmers frequently rely on off-farm sources of income for their support. Thus, part-time or noncommercial farms have other income that can be offset by farm losses for tax purposes. Similarly, large farm operations often generate sufficient levels of farm income to fully benefit from the various farm tax preferences. Many farmers devoting full-time to the farming operation, however, do not generate enough taxable income – either farm or nonfarm – to fully utilize the available tax benefits.

Incentive to Incorporate

A corporation is a separate taxable entity for Federal income tax purposes. While many of the rules regarding the computation of net farm income are the same for corporations and individuals, various aspects of the corporate form of business have encouraged the incorporation of farm businesses. Those aspects of the corporate income tax which have encouraged family farms to incorporate include lower and less progressive tax rates for retained earnings, the availability of business deductions for various fringe benefits not generally available to sole proprietorships or farm partnerships, and the ease of transferring the farm business and other estate planning reasons.

Between 1974 and 1997, the number of corporate farms increased from 28,442 to 84,002. This growth was almost entirely attributable to an increase in the number of family and other closely held farming corporations. In fact, only about 2 percent of all farm corporations were other than family held with 10 or more shareholders. Thus, this increase reflects a shift in the form in which family farms conducted business rather than an increase in the presence of widely held corporations in farming. A substantial portion of the growth in family farm corporations can be attributed to Federal tax policies.

In 1975 and again in 1978, tax rates for corporations were reduced. As a result, corporate rates were lower and less progressive than individual rates. This provided substantial incentive to incorporate the farm business.

Another feature associated with the corporate form of organization is the ease with which annual gifts of farm

property can be made since ownership is represented by certificates of stock. Estate and gift tax laws permit an individual to transfer \$10,000 each to an unlimited number of individuals free of tax each year. This allows a married couple to make gifts of \$20,000 per recipient per year free of tax. However, the transfer of the actual farm assets can cause problems due to the difficulty in partitioning the farm business. By incorporating, the transfer of the farm business can be accomplished by transferring shares of stock in the corporation. This avoids partitioning farm assets and allows the farmer to transfer a substantial amount of farm property to the next generation without losing control of the farm operation while still reserving the entire tax-exempt amount that will be allowed by the unified credit at death.

Finally, the corporate form of business organization permits a number of fringe benefits to be provided to the shareholder-employee at a lower after-tax cost. The cost of many fringe benefits, including health insurance, meals, and lodging on business premises and pension and profit sharing plans, are fully deductible to the corporation and often not included in the taxable income of the shareholder-employee.

Beginning in 1986, the incentive to incorporate was reduced somewhat by expanding the fringe benefits available to noncorporate businesses, by limiting those available to corporations, by reducing marginal income tax rates for individuals, and by strengthening the double taxation of corporate assets at the time such assets are distributed from the corporation. Despite these changes, tax savings can continue to be realized since income retained in the corporation is not subject to social security (self-employment) taxes. Nevertheless, these changes may have prompted some corporations to shift from a regular C corporation to a subchapter S corporation in which income is passed through to the shareholders and no corporate-level tax applies.

The organizational structure under which the farm business is conducted would seem to be of little significance; especially if most corporations, partnerships, or other forms of organization are closely held family operations. However, the shift to the corporate form of organization during the 1970's may have allowed these farms to expand more rapidly as a result of the reduced taxes on earnings retained in the corporation. It also may have facilitated the transfer of the farm business to the next generation resulting in the continuation of the farm business.

Land Use and Conservation

Despite tax provisions designed to encourage investments in conservation, Federal tax policies throughout the 1970's and early 1980's had a negative effect on resource conservation. Several features of the tax code promoted farming practices that exploited both soil and water resources. These features included capital gains treatment for land used in farming, the investment tax credit and accelerated depreciation, and provisions governing the deductibility of land clearing and soil and water conservation expenditures.

Throughout the 1970's and early 1980's, the immediate deductibility of land clearing and development expenditures, combined with favorable capital gains treatment, provided a major incentive to expand farming operations onto highly erodible rangelands and wetlands. Speculative investors received substantial tax benefits from the purchase of fragile rangeland, timberland, or wetland and its conversion to cropland. The costs of conversion and preparation were immediately deductible against ordinary income. Upon sale, these sodbusters and swampbusters were able to exclude 60 percent of the large increase in the land's market value. In the case of wetlands, research evaluating a large-scale conversion in the Pocosin region of North Carolina suggested that such a conversion produced tax savings worth as much as \$600 per acre (Heimlich). This represented an estimated one-third of the conversion expenses. In the case of rangeland, the capital gains exemption was cited as the primary stimulus for conversion of Montana rangeland to dryland wheat production. Tax benefits were also cited as a major factor in the conversion of large areas of fragile sandy rangeland in the Nebraska Sandhills to irrigated cropland. Capital gains in combination with other available tax benefits were found to have subsidized the conversion of this rangeland to irrigated cropland by as much as \$180 per acre (Laylock).

Even the deduction for soil and water conservation expenses has had a questionable impact on soil and water conservation efforts. Farmers claimed nearly \$103 million in conservation deductions for the 1982 tax year. Despite the obvious positive effect of most of the expenditures eligible for this deduction, many conservation expenses that qualified were of questionable value with regard to erosion control and water conserving measures. The conservation provision allowed deductions for wetland drainage, the leveling of land to facilitate irrigation installation, and other destructive

practices on highly erodible land and wetland. Furthermore, the provision contained no explicit targeting mechanism. Utilization of the deduction was related more to income and farm size rather than the actual need for the conservation expenditures. As a result, researchers examining the effect of the proposed repeal of the soil and water conservation deduction suggested that its repeal might not have a significant adverse impact on soil erosion control practices on U.S. farmland (Anderson and Bills).

Several features of the Tax Reform Act of 1986 had a favorable impact on natural resource conservation. Many of the provisions that encouraged the conversion of rangeland and wetlands to cropland were eliminated or reduced. The remaining provisions were more effectively targeted.

Specifically, the repeal of the deduction for land-clearing expenses and the capital gains exclusion eliminated a major incentive to convert marginal land to cropland. In addition, the characterization of gains from the sale of highly erodible land and wetland converted to cropland as ordinary income rather than capital gain has

been an important deterrent to sodbusting and swamp-busting since preferential capital gains taxation was restored. The repeal of the investment tax credit and the lengthening of recovery periods for irrigation equipment also greatly reduced the subsidy for the capital equipment necessary for the irrigation of fragile rangeland.

In addition to modifying those provisions which had a negative impact on soil conservation efforts, the 1986 Act also improved the effectiveness of the deduction for soil and water conservation expenditures through improved targeting. The deduction can no longer be used to deduct expenses associated with the draining and filling of wetlands or for preparing land for center-pivot irrigation systems. Furthermore, only expenditures for practices taken in connection with plans approved by USDA's NRCS or a comparable State agency can be deducted under the soil and water conservation provision. Finally, more recently, the increase of tax incentives for the donation of a conservation easement should further efforts to slow the conversion of farmland to commercial or residential development uses.

Proposals for Reform

The National Commission on Small Farms recommended a review of two tax reform proposals in *A Time to Act* to help “retiring farmers to assist new farmers in getting started” in farming (p. 95, Recommendation 5.7). The first proposal addresses the tax treatment of an installment sale, while the second involves the taxation of rental income from a beginning farmer. A third proposal being considered by Congress is designed to aid farmers in managing risk through farm savings accounts.

Installment Sales Reform

Installment sales of farmland and other farm property can provide benefits to both the buyer and the seller. Buyers have an alternative source of financing other than a bank or other traditional lender while the seller can realize more from the sale due to reduced tax liability. Under the current installment sale rules, taxable gain on the sale is generally recognized on a pro rata basis as the payments are received. However, there is an exception for depreciation recapture. Depreciation recapture must be fully recognized in the year of the sale even if it exceeds the amount of the payment actually received. This can cause problems for sales of an ongoing farm business with significant amounts of farm machinery and equipment or single-purpose or other farm structures. In such instances, the seller will likely require that the first-year payment be large enough to cover the tax liability associated with the depreciation recapture. Since depreciation recapture is taxed as ordinary income, this could be quite large and may make it difficult for a beginning farmer to purchase a farm business that has farm machinery, livestock, or farm buildings in addition to farmland on an installment basis. In some instances, the recapture amount may be so large that there may be little incentive to sell the farm on an installment basis and instead require that the purchaser find another source of funding for the purchase. Again, this can place the beginning farmer, who may have more difficulty in securing financing, at a disadvantage.

Allowing depreciation recapture to be recognized in the same manner as other gain in the case of an installment sale to a beginning farmer would increase the incentive for the owner to sell farm land and other farm business assets on an installment basis and should reduce the amount of money required as an initial payment. Thus, beginning farmers should be able to negotiate more favorable payment terms than under existing installment sales rules. However, the reduction in the down-

payment amount is likely to be less than the first-year tax savings. Although the additional downpayment amount goes to the Internal Revenue Service (IRS) and not the seller, reducing the amount of the downpayment increases the risk assumed by the seller should the beginning farmer default and the seller be forced to repossess and resell the property. Because sellers are likely to view an installment sale to a beginning farmer as riskier than a sale to an established farmer, there may be resistance to lowering the downpayment amount. Thus, the reduction in the downpayment amount is likely to be less than the tax savings in the year of sale.

One of the reasons for making an installment sale is to spread the gain over several years and avoid the higher tax rates that can be applicable in the case of a sale for a lump-sum payment. The reintroduction of income averaging for farmers may reduce the need to spread payments over a period of years because farm income can be spread over the 3 prior years. While averaging does not apply to land, gain from the sale of other farm business assets or other farm income is eligible for income averaging and could reduce the benefits from an installment sale.

Recent estate tax changes may also affect the willingness of retiring farmers to sell farm property under a land contract to a beginning farmer. The new family-owned business deduction currently allows as much as \$675,000 in business assets to be transferred free of tax in addition to the amount exempted by the unified credit. Because the new provision requires that the trade or business be more than 50 percent of the estate to qualify, older farmers are encouraged to remain fully invested in land and other business assets. Land sales on contract are discouraged since a land contract is not likely to be considered a business asset. Thus, modifying the installment sales rules may remove one obstacle to sales to beginning farmers. However, given the other obstacles, the change may not substantially increase the number of retiring farmers willing to sell land to a beginning farmer through a land contract.

Tax-Free Rental Income

Beginning farmers are frequently at a disadvantage in bidding for land available to rent. They may be in direct competition with established farmers who not only may be in a financial position to outbid them but also may be perceived as more creditworthy and reliable.

One of the proposals designed to make rental land available to beginning farmers is to exempt the first \$10,000 of income to a landlord who leases farmland or other property to a beginning farmer. Farm landlords, many of whom are retired, would clearly benefit from tax-free rental income, with the level of benefit depending upon the landlord's tax rate.

Exempting rental income from beginning farmers should provide beginning farmers greater access to farmland through rental arrangements. However, there may be little financial assistance provided to beginning farmers. Research has shown that similar subsidies accrue to the asset owner rather than the operator (Schertz and Johnston, 1998a,b). Thus, while the same before-tax rent from a beginning farmer would provide a higher after-tax return to the landlord, there may be little pressure to reduce the rent amount charged to the beginning farmer. Thus, the landlord could capture much of the financial benefit associated with the tax incentive. The amount of benefit, if any, captured by the beginning farmer would depend upon the local farmland rental market. Thus, the primary benefit to the beginning farmer would likely be the increased availability of farmland for rent due to the tax savings available to the landlord.

Nebraska enacted a similar policy in 1999 that provides a State income tax credit to landlords who rent property to beginning farmers (Fredrick). To qualify, a beginning farmer must have net worth under \$100,000 and provide most of the physical labor and management in the farm. The tax credit that the landlord receives is 5 percent of the gross rental income. While it is too early to evaluate the success of the Nebraska program, future analysis could indicate whether beginning farmers receive part of the benefit in the form of lower rents or whether the landlord captures most of the benefit.

Farm and Ranch Risk Management (FARRM) Accounts

A program of tax-deferred savings accounts for farmers is among the alternatives under consideration by Congress to help farm operators manage their year-to-year income variability. Unlike the income-averaging provision included in the Taxpayer Relief Act of 1997 allowing farmers to spread above-average income to prior tax years and avoid a higher tax bracket, tax-deferred savings accounts would build a cash reserve that is available for future use. By depositing income into Farm and Ranch Risk Management (FARRM) accounts during years of high net income, farmers could build a

fund to draw on during years with low income. Farmers who are able to build new savings through these accounts could be better able to smooth their household consumption over time and self-insure some of their income risk.

Proposals for tax-deferred farm risk management accounts originally surfaced after passage of the 1996 Farm Act, as a mechanism to encourage farmers to save a portion of the 7-year transition payments. In 1998, as Congress sought to expand the farm safety net and ease stress from low commodity prices and regional disasters, it considered FARRM accounts but did not enact them. In 1999 and 2000, FARRM accounts were again included as one part of several proposed tax reduction packages that were not enacted.

As proposed, farmers could take a Federal income tax deduction for a FARRM deposit of no more than 20 percent of eligible farm income. Eligible farm income is defined as taxable net farm income from schedule F of IRS form 1040, plus net capital gains from the sale of farm assets including livestock but not land. Deposits would be made into interest-bearing accounts and earnings would be distributed and taxable annually. Withdrawals from principal would be at the farmer's discretion and taxable in the year withdrawn. Deposits could stay in the account for up to 5 years, with new amounts added on a first-in, first-out basis. Deposits not withdrawn after 5 years would incur a 10-percent penalty. FARRM funds would also have to be withdrawn if the participant stops farming. Deposits and withdrawals would not affect self-employment taxes.

FARRM account eligibility would be limited to individual taxpayers – sole proprietors, partners in farm partnerships, and shareholders in subchapter S corporations – who report positive eligible farm income. The program could be relatively easy to administer by using existing tax forms and reporting requirements similar to IRA's.

Based on 1994 IRS data, an estimated 916,000 farmers would be eligible to contribute as much as \$2.8 billion to FARRM accounts each year. Farm sole proprietors account for over two-thirds of eligible participants and three-fourths of potential contributions. Partners in farm partnerships make up about one-fourth of eligible participants and one-sixth of potential contributions.

Although farm sole proprietors make up the largest share of potentially eligible individuals, over two-thirds of all farm sole proprietors either report a farm loss or have no Federal income tax liability and therefore

could neither participate nor benefit from participation. About half of the remaining sole proprietors who are eligible would be limited to contributing less than \$1,000 in any given year. Thus, each year only about one of every six sole proprietors could contribute more than \$1,000. Actual participation rates and amounts could be significantly less than the number and amount eligible.

While an estimated 27 percent of all sole proprietors would be eligible for FARRM deposits in any given year and the average potential contribution for those who are eligible would be \$3,500, there would be considerable variation among the farm types. Large family farms with sales over \$250,000 are the most likely to be eligible, at 69 percent. Their average potential contribution is \$10,800, more than twice that of the next closest group. For these large farms, and even many primary-occupation small farms, FARRM accounts could offer the ability to build a sizeable and useful self-insurance safety net over several years.

At the other extreme, however, limited-resource farms are the least likely to be eligible. Because of low income, most of these farms do not owe income tax and would have no incentive to participate. For the 10 percent who are eligible, their average potential deposit is only \$760. With such small amounts, FARRM accounts would be of little value to limited-resource farms.

FARRM accounts will also be of relatively little benefit to other groups of small farms, such as retirement and lifestyle farms. Although lifestyle farms make up the largest group by the number of farms, only 20 percent would be eligible because most lifestyle farms report taxable farm losses. On the other hand, many lifestyle farms may not need an additional risk management tool because their primary occupation and source of income is away from the farm.

The amount of money that would actually be deposited into FARRM accounts and a minimum balance that would be necessary to provide sufficient risk protection – for either farm operations or household living expenses – are difficult to estimate. But with over 80 percent of all farmers limited to contributions of less than \$1,000 in any given year, and with participation rates certain to be less than 100 percent, most farmers are not likely to accumulate significant reserves. Some

producers with low contribution limits may be able to deposit larger amounts in years when farm income is higher. But the 5-year window for building reserves and the generally low level of taxable net farm income combine to reduce the likelihood that most farmers would be able to build balances adequate to self-insure risk exposure.

Without targeting (specifying other income criteria for those who are eligible to participate) most of the benefits would go to relatively few farmers, and some would go to individuals who do not rely on farming for their livelihood (Monke and Durst, 1999). To meet goals of program efficiency (benefits offsetting costs) and risk management, FARRM accounts must create new savings rather than shift assets or replace existing risk management practices (Monke). The primary benefits would be farmers' increased financial stability and the potential need for lower emergency aid payments.

To enhance farmers' risk management capabilities, new savings must come from reduced household consumption or from funds that would have been invested in the business, rather than from shifting existing savings, diverting future new savings, or borrowing. Available data indicate that most potentially eligible farmers have ample resources to shift funds into FARRM accounts instead of creating new savings.

In summary, tax-deferred risk management accounts have the potential to encourage farmers to provide their own safety net by saving money from high-income years to withdraw during low-income years. Taxpayers could benefit if farmers' additional financial diversification and liquidity reduce the need for income support programs or ad hoc disaster relief. Nonetheless, there are several potential limitations to the program's effectiveness. These include (1) low levels of taxable farm income that preclude most farmers from building meaningful balances, particularly those most in need of risk management tools such as limited-resource and beginning farmers; (2) concentration of benefits among operators with large farms and relatively high nonfarm income; and (3) funding of FARRM accounts with existing liquid assets instead of new savings. Given these limitations and differences within and across farm types, FARRM accounts may improve short-term cash-flow for those who participate but are not likely to significantly reduce the demand for emergency relief from the Federal government.

Conclusions

The Federal tax structure that existed at the beginning of the 1980's is very different from the current Federal tax policies. Then, the Federal income tax system contained numerous exclusions, deductions, and credits with relatively high marginal income tax rates. Social security and self-employment taxes were still relatively low. Federal estate and gift taxes on the other hand were of major concern due to the sharp increase in the value of farm estates and the limited number of exclusions and credits available to shield farm estates from taxes.

Research evaluating the impact of these policies on the agricultural sector reached a number of conclusions. The most significant conclusions included the following:

- Individuals with substantial farm income had significantly lower Federal income tax burdens compared with all other taxpayers.
- Federal income, estate, and gift tax policies exerted upward pressure on farmland values.
- Federal income, estate, and gift tax policies helped concentrate farmland ownership with high-income farmers and nonfarmers, reducing opportunities for beginning farmers.
- Federal income tax policies stimulated capital investment and encouraged the substitution of capital for labor.
- Federal income tax policies encouraged farmers to alter management practices to maximize after-tax returns.
- Federal income tax policies contributed to increased supplies and lower prices for some farm commodities, especially livestock and orchards and vineyards.
- Federal income, estate, and gift tax policies supported growth trends in the number of very small and very large farms.
- Federal income tax policies encouraged the conversion of highly erodible and wetlands into cropland.

Tax legislation enacted during the decades of the 1980's and 1990's have resulted in a significant shift in Federal tax policies. Despite increases in marginal

income tax rates and targeted tax relief in recent years, the Federal income tax system contains a broader base and lower marginal income tax rates with fewer opportunities to shelter income through exclusions, deductions, and credits compared with the system that existed two decades ago. Federal estate and gift taxes are of continuing concern, despite large increases in the amount of property that can be transferred free of tax. Social security and self-employment taxes impose a much greater burden and play a greater role in investment and management decisions due to sharp increases in tax rates and the amount of income subject to such taxes.

Although the implications of this new structure are less clear and research regarding the impact of these policies is somewhat limited, a number of implications of such policies for the agricultural sector have been established:

- The Federal income tax system has become more progressive as a result of an expanded earned income tax credit, increased marginal tax rates, and other changes, while overall progressivity continues to be reduced by Federal payroll taxes, primarily social security and self-employment taxes.
- Federal income and payroll tax policies continue to favor capital investment over labor especially for those able to currently expense a large portion of their capital investment, but the availability of investments with negative effective tax rates is limited.
- Federal tax policies affecting land use, conservation, and preservation are environmentally friendlier due to reduced tax benefits for certain harmful practices and targeted incentives in support of farmland conservation and preservation efforts.
- Federal income, estate, and gift tax policies that provide favorable treatment to farmland relative to other assets continue to reduce the supply and increase the demand for farmland, exerting upward pressure on values.
- Federal tax policies continue to result in increased resource use in agriculture contributing to greater farm output and lower prices.
- Federal income, estate, and gift tax policies continue to support trends in an increase in the number of very small and very large farms.

- Proposals to increase opportunities for beginning farmers should increase the availability of land but are not expected to have a significant effect on affordability.
- Proposals to create FARRM accounts may allow many primary occupation small farms and large farms to build a sizeable and useful self-insurance safety net over several years but are unlikely to provide a meaningful safety net for most farmers because they would not be eligible to contribute or could contribute only small amounts to such accounts.

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