INCOME AND WEALTH ISSUES IN COMMERCIAL FARM AND AGRICULTURAL POLICY

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This workshop addresses the subject of income and wealth issues in commercial farm and agricultural policy. The focus is on broad definition of the issues, and broad definitions of the possible policy interventions. In their broadest sense the policy issues are:

(1) What are the income and wealth situations of farmers? Is the farm sector still disavantaged?

(2) Are these situations anomalies? Or are there phenomena which make normal economic performance look poorer than it actually may be?

(3) Can policy interventions cure such anomalies? Do they have side effects?

(4) Finally, where does all this leave us?

What are the Income and Wealth Situations of Farms?

It is almost a truism that farms vary widely in sizes, sales classes, incomes, and wealth positions, and that off-farm income sources are highly negatively correlated with farm sales classes. Because population averages tend to be meaningless across such a diverse population as farms of all sizes, an initial classification of farms into descriptive size classes is necessary. The diversity of the farm sector in terms of concentration of farm numbers and total farm product sales is shown in the concentration chart (Figure 1).

Approximately half of all farms have sales of less than $10,000, but account for only 5 percent of total agricultural product sales. At the other end of the distribution, the largest 5 percent of farms account for almost 50 percent of total agricultural product sales.

The most meaningful descriptive sales classes grouping farms of similar sizes for 1982 appear to be as follows in Table 1. At the small end, rural residences and small family farms have experienced negative net farm income since the beginning of the 1980's (Figure 2), but have off-farm incomes roughly comparable
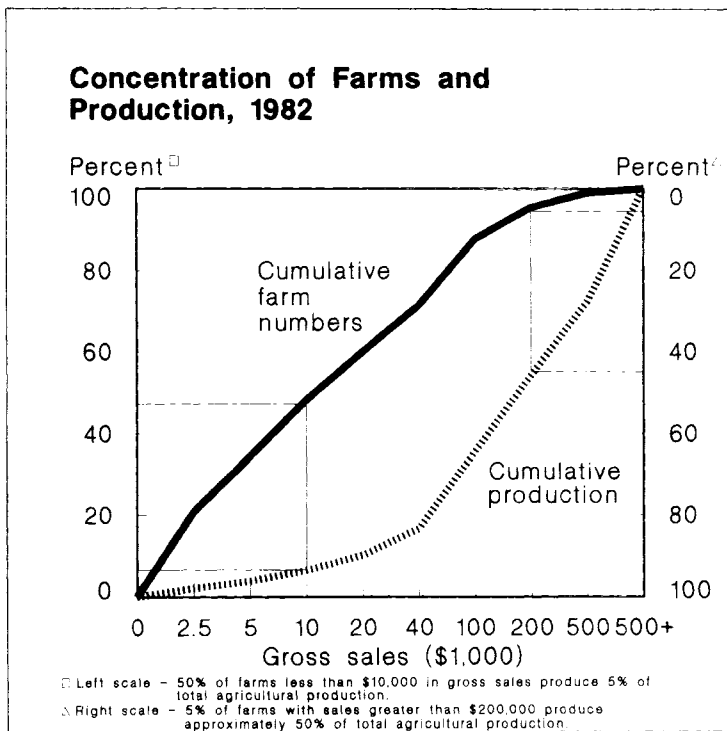
Concentration of Farms and Production, 1982

Percent

100		0
80	Cumulative farm numbers	20
60		40
40		60
20	Cumulative production	80
0		100

0   2.5   5   10   20   40   100   200   500 500+
Gross sales ($1,000)

Left scale – 50% of farms less than $10,000 in gross sales produce 5% of total agricultural production.
Right scale – 5% of farms with sales greater than $200,000 produce approximately 50% of total agricultural production.

FIGURE 1.

TABLE 1

FARMS AND PRODUCTION BY SALES CLASS GROUPS, 1982

Size Group	Sales Classes	Number of Farms	Percent of Production
Rural Residences	Less than $ 10,000	1,154,000	6.5
Small Family Farms	$ 10,000 - $ 40,000	551,000	10.1
Family Farms	$ 40,000 - $200,000	561,000	37.6
Large Family Farms	$200,000 - $500,000	83,000	18.0
Very Large Farms	$500,000 and up	24,000	27.8

Source: Census of Agriculture, 1982

to the median of the non-farm population. The small family farms have lower off-farm incomes, largely because many of these farms are too large to be operated in conjunction with full-time off-farm work. The family farm category has historically yielded positive net farm incomes, but in recent years off-farm income sources have exceeded net farm income. The upper cut off of family size farms of $200,000 may appear large at first, but is not when one considers that with national average yields and prices of 1982 it only takes 645 acres of corn to equal $200,000. A cash grain farm
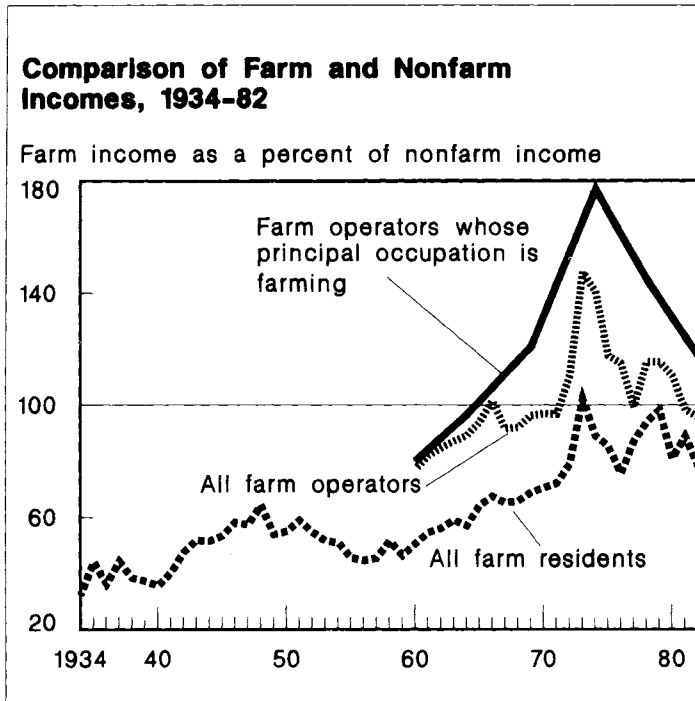
FIGURE 2.

of this size could readily be operated by a single family. Off-farm incomes are lowest for family size farms. Large family farms and very large farms are generally multiple family farms with more than one operator. Corporate forms of organization are much more important among these larger farms. Off-farm income sources also increase for these large farms, but it is generally interest and dividend income, rather than wage and salary income.

Given that almost half of the farms are noncommercial, rural residences, what would be the effect of eliminating these rural residence farms from the Economic Research Service (ERS) reported income statistics? Since these farms are almost indistinguishable from the nonfarm population in terms of income sources, account for very little production, and consistently yield negative net incomes, there is some sentiment for not calling them farms. If these small units were not counted as farms, the reported average net farm income of the remaining farms would almost double, and the reported average income from all sources would increase by 26 percent (Table 2). The resulting income statistics would show the farm sector to have higher family incomes than the average of the nonfarm population.

TABLE 2

EFFECTS OF REMOVING SMALL FARMS FROM INCOME STATISTICS: TOTAL
INCOME FROM FARM AND OFF-FARM SOURCES FOR ALL FARMS AND ALL
FARMS WITH GROSS SALES OF $10,000 OR MORE, 1982

Item	All farms	Farms with $10,000 or more gross sales	Change if farms with less than $10,000 gross sales were excluded	
		——— Million Dols. ———		
	Percent			Percent
Net farm income	24,899	25,580	+ 681	2.7
Off-farm income	39,415	16,462	− 22,953	− 58.2
Total operators' income	64,314	42,042	− 22,272	− 34.6
		——— Thousand Farms ———		
Number of farms	2,400	1,245	− 1,155	− 48.1
Per farm		——— Dollars ———		
Net farm income	10,374	20,546	+ 10,172	98.1
Off-farm income	16,423	13,222	− 3,201	− 19.5
Total operator's income	26,797	33,768	+ 6,971	26.0

Source: U.S. Dept. of Agriculture, Economics Research Service, *Seventh Annual Report to the Congress on the Status of Family Farms*, Nov. 1984

Comparisons of wealth positions of farm families with nonfarm families are difficult because of a lack of comparable data on the nonfarm sector. Nevertheless, wealth positions (total value of assets and net worth) show significant accumulation of wealth among farm families. The smallest, rural residence class of farms appear to have net worths approximately equal to the average of the nonfarm economy. Larger sales classes represent correspondingly larger accumulations of wealth (Figure 3).

The conclusions supported by reported income and wealth distributions are that the farm sector cannot any longer be considered as disadvantaged when compared to the nonfarm economy. Incomes in farming do fluctuate from year to year, possibly creating "boom and bust" conditions within agriculture, but incomes within the farm sector do not appear to place farmers at any disadvantage compared to the general population. The next section will further explore the income comparisons.

Are These Situations Anomalies?

Incomes of farm families were very low in comparison to their nonfarm counterparts throughout much of this century and assertions are still made that farm incomes have not achieved parity with nonfarm incomes. To examine this question, researchers in ERS compiled the income parity comparisons in Figure 4. Each line represents the parity ratio (the total income measure for the

Assets, Debts, and Net Worth of Farms by Sales Class, 1982 □

Millions

Total assets
Net worth
Debt

4,351,808

1,837,420

824,040

324,565

139,083

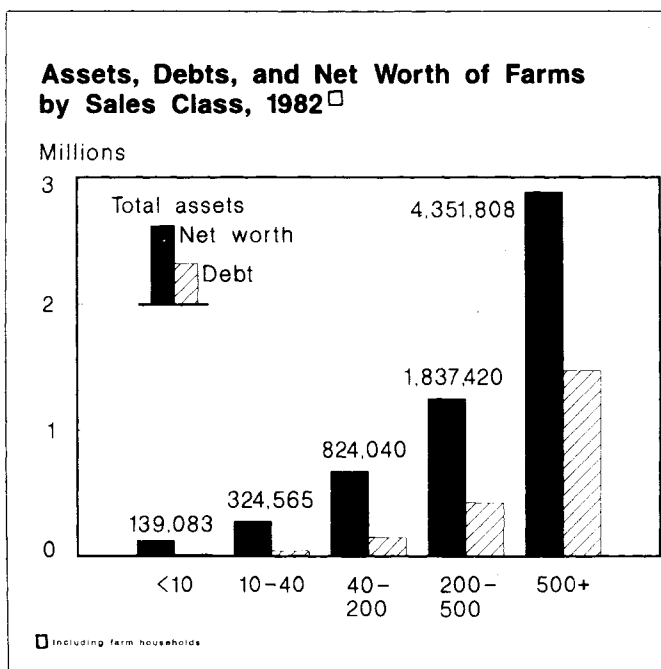| <10 | 10–40 | 40–200 | 200–500 | 500+ |

□ including farm households

FIGURE 3.

farm population divided by the corresponding measure for the nonfarm population and expressed as a percent) for a specific measure of farm income over time. When the ratio exceeds 100, farm incomes exceed nonfarm incomes. The most commonly used measure is "income of the farm population", which includes income from all sources and is available on a per capita basis back to 1934. This measure of the population includes all persons living on farms, whether or not they derive any income from the farm; and excludes farm operators who do not reside on farms. It is comparable to national per capita income figures for the nonfarm population. This series has historically remained at less than 100 percent of parity except for 1973, when it ticked over 100 percent. By this measure, the farm-nonfarm income gap has steadily closed; but it has not been eliminated. This is the income series used for most analysis and justification of farm commodity programs.

A second, perhaps more meaningful, series compares the family incomes of farm operator families (from all sources) with the family incomes of nonfarm families. The income series for farm operator families includes all farm operator families, but excludes nonoperator families residing on farms. This series, available since
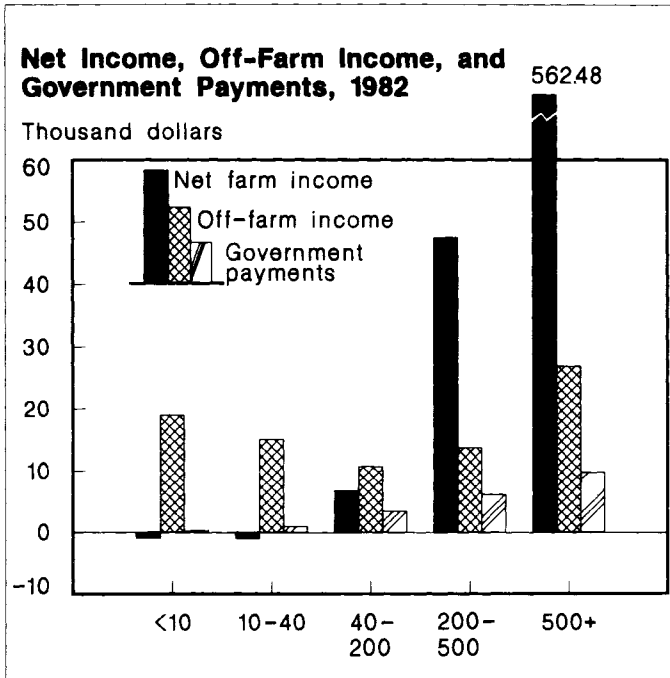
FIGURE 4.

1960, shows that farm family incomes have exceeded nonfarm family incomes in most years since 1970, reaching a maximum of 150 percent in 1973 and subsequently declining to about parity with nonfarm family incomes.

The third income series is the income (from all sources) of farm families whose principal occupation is farming, compared to the average family income of the nonfarm population. This series is available for selected years since 1960 and reflects only the operators of larger farms (probably equivalent to sales of approximately $40,000 or more), who stated farming as their principal occupation. Incomes of farm operator families whose principal occupation is farming, have consistently been higher than their nonfarm counterparts since the mid 1960's, attaining a maximum of 180 percent in 1975.

These comparisons show that incomes of farm families — especially farm operator families — are *not* depressed in comparison to the rest of the economy, but are lower or more volatile when compared to previous years of the 1970's. Thus the income levels of farmers are not anomalies compared to other sectors, but are anomalously low when compared to incomes of the mid

1970's. One period or the other — the 1970's or the present — must be out of the ordinary.

A second question arises in these income comparisons. Is agriculture riskier than other pursuits? There is not yet a definitive answer available to this question, but there are two answers that appear to be justified at first glance. First, agriculture is riskier than the wage and salary employment to which it is usually compared. Secondly, agriculture is probably *not* riskier than other small businesses to which it ought to be compared, if farmers are considered as combination owner-operators, rather than hired managers. Weather, vagaries of the market, input costs, etc. probably affect other comparable size businesses to nearly the same degree as they affect agriculture. Business failure rates appear to be much higher in the nonfarm sector than in the farm sector.

A third consideration with respect to whether the performance of the farm sector is anomalous is that there are two mechanisms which affect how well the sector *appears to be* performing versus how well it may actually be performing. The first of these is that net farm income before inventory adjustment — the most commonly cited measure of income of the farm sector — is calculated on the basis of cash incomes and expenditures with a percentage allowance for capital consumption expenditures. This is similar to cash basis accounting for farm firms. Several authors, including Boehlje, Melichar, and Harrington, have shown that cash accounting, combined with income tax sheltering and/or inflation in the general economy, and/or capital appreciation of land, results in downward biased estimates of the economic well-being of farmers [1, 4, 2, 3]. The second consideration stems from the first. If farmers' net incomes or rates of return are incorrectly measured, and policies are put in place to attempt to bring the performance measures into some desired range, then farmers are likely to change their production and investment behavior such that desired increases in income or rates of return are quickly bid into asset values, and incomes and rates of return remain unchanged. Harrington described this phenomenon in regard to cost of production pricing of farm commodities [2]. More about the effects of policy intervention follows in the next section.

Can Policy Interventions Cure Such Anomalies?

Agricultural policies and programs affect farms through an interlocked set of effects. Policy interventions affect:

● The demands or supplies of agricultural commodities, which in turn affect,

● The level and stability of prices, quantities, and revenues, which in turn affect,

- The production and investment behavior of farmers, asset owners, and lenders, which in turn affect,

- The values of farm assets, which finally affect

- The ownership patterns of farm assets (by large vs. small farmers and farmers vs. nonfarmers) and the debt-equity position of asset owners.

Policy makers (and analysts) have usually concentrated on the first two of these as the primary effects of the program and ignored the others, or called them "unanticipated side-effects." This is understandable because the first two points offer help for "today's" problems, while the next three points are long-run effects not felt until "tomorrow." But more importantly, the interlocked set of effects implies that short-run gains from the first two effects will be dissipated or counteracted through changes in the rest of the system. This makes it impossible to "cure" a problem through a once-and-for-all change in policy. Hence, policies tend to treat today's symptoms because of their inability to treat the underlying problem. In the long run, changes in the behavior of participants result in new equilibrium relationships between supply, demand, prices, incomes, and values of assets. The major question becomes, "How soon do these long-run effects occur?" ie. When does the day of reckoning arrive? There is mounting evidence that the effects are not dependent on a fixed time frame, but rather upon the prevalence and strength of the future expectations of the farmers, investors, and asset owners which can change rapidly or painfully slowly at different times [4, 5]. This brings us to our final question.

Where Does All This Leave Us?

Two important principles seem to be supported by the foregoing discussion:

(1) Policies and programs should not attempt to supplant market signals for any extended period of time because of possible long-term detrimental effects on behavior, asset values, and ownership structure.

(2) Rather, if policies have an attainable role in the farm economy it would be in dealing with the potentially excessive variability of agricuture: (a) to prevent the market from sending wrong or ambiguous signals, (b) to prevent market forces from making unwarranted or overcorrecting adjustments to the market signals, and (c) to ease the transition to a new situation.

The first principle argues against autonomous price or income support policies which operate constantly or frequently. The second principle argues for policies of analysis and information dissemination, policies of risk reduction or risk sharing, and direct intervention policies only

at stop-loss levels. These are usually termed "market-oriented" policies.

Does this mean that existing commodity programs and other forms of policy intervention in the farm sector should be scrapped forthwith? Obviously not! Adding a new policy or removing an existing policy that has been in place long enough to affect the system are each equivalent to changing the rules of a game. Generally, changing the rules of a game adversely affects everybody except those who have been sitting on the sidelines. Both struggling and established farms would suffer income and capital losses through the reverse action of the set of five interlocked effects discussed earlier. They would both be at a disadvantage relative to people who had no position in farming when the policies were suspended. Changing of policy directions should be signalled well in advance; they should be timed so as not to compound any other economic adjustments that may be going on at the same time; and they should be gradual — such as, perhaps, freezes of price support levels which allow other forces in the farm economy to supercede the support policies in importance until the policies gradually become ineffective.

REFERENCES

[1] Boehlje, Michael J. "Taxes and the Future Food and Fiber System." *The Farm and Food System in Transition*, Emerging Policy Issue Paper No. 25. East Lansing: Michigan State University, 1984.

[2] Harrington, David H. "Costs and Returns: Economic and Accounting Concepts," *Agricultural Economics Research*, No. 4 (October 1983), pp. 1–8.

[3] Harrington, David H., et al. *U.S. Farming in the Early 1980's: Production and Financial Structure*. Washington DC: USDA ERS Agr. Econ. Rep. 504, Sept. 1983.

[4] Melichar, Emanuel. "Capital Gains Versus Current Income in the Farming Sector." *Amer. J. Agr. Econ.* 60(1979):1085–92.

[5] Miller, Thomas A., *Costs, Returns, and Land Values on Colorado Wheat Farms, 1950-1980: How Historical Relationships Have Changed*, Colorado Ag. Expt. Sta. Tech. Bull. No. 150, Colorado State University, 1983.

METHODOLOGY WORKSHOPS