

Is There Still a Farm Problem?

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Misleading statistics—or statistics that are abused by politicians—are the source of much of the “farm crisis” of the last half century.

—James Bovard¹

As the above quotation suggests, not everyone is convinced that the agricultural sector has been beset by serious problems. Nonetheless, for almost six decades, the federal government has formulated policies to increase the welfare of the farm sector relative to the nonfarm sector. These policies were originally implemented because farm income levels substantially trailed nonfarm income levels, a dilemma that came to be known as the “farm problem.”

This article examines the current economic status of the farm sector to determine what indicators of farm income might suggest about the future course of governmental policies to assist this sector. In addition, the article briefly examines the underpinnings of increased government assistance to agriculture and the evolution of the agriculture sector since the 1930s.

The Economic and Political Basis for Government Involvement in Agriculture

The farm problem has traditionally been associated with the tendency of market-determined farm prices to decline over time. This downward pressure on commodity prices reflects a tendency for the supply of agricultural products to have increased faster than the demand for them. In turn, “low” commodity prices caused farm income to grow more slowly than nonfarm income. As a result, the federal government has implemented policies to redistribute income back to the farm economy.

Prior to 1933, government intervention in the agricultural sector was minimal and focused primarily on policies to expand overseas markets or provide adequate bank credit to farmers. Beginning with the Agricultural Adjustment Act of

1933, however, the federal government assumed a more active role in agriculture. Its policies have included various price support and production control initiatives, as well as various credit subsidization measures.²

Although intended to remedy the farm problem, the rationale for government intervention into agriculture stemmed from a broader context, based principally on the ideals of “Jeffersonian agrarianism” and the “agricultural creed.” These two pillars of agricultural interventionism rest on the notions that (1) all commerce evolves from agriculture, (2) the rural way of life is superior to all others and (3) a democratic society is best anchored on a foundation of small, independent farmers.³ Given the predominant agrarian history of our country, many argued that farming was a way of life that deserved special protection. In the years since the Depression, however, the agricultural sector has changed dramatically.

The Changing Nature of the Agricultural Sector

For much of U.S. economic history, agriculture was a relatively important sector in terms of employment and output. Over time, however, the U.S. economy has evolved from being agricultural-based to industrial-based to, currently, service-based. This changing composition of output has precipitated a movement of economic resources out of agricultural production. For example, farm employment as a percent of total employment has steadily fallen over the years, from about 13.5 percent in 1947 to 2.5 percent in 1991. Over the same period, the number of farms declined by more than one-half, to its current 2.1 million.

Further evidence of agriculture’s relative decline in economic importance can be seen by examining farm output as a percent of the nation’s total output (measured as gross domestic product). From 1929 to 1990, inflation-adjusted (or real) farm output as a percent of total real output has decreased from about 7.7 percent to 1.9 percent.⁴ Thus, while the domestic food and fiber industry may account for as much as 20 percent of total output and slightly more than 20 percent of total labor force employment, its actual production aspect—that is, the growing and harvesting of farm commodities—accounts for substantially less.⁵

Fewer Farmers Feeding More People: The Benefits of Increased Productivity

Increases in productivity allow more output to be produced with fewer resources. Agriculture is a good example of this fundamental principle:

Figure 1
Index of Farm and Nonfarm Productivity

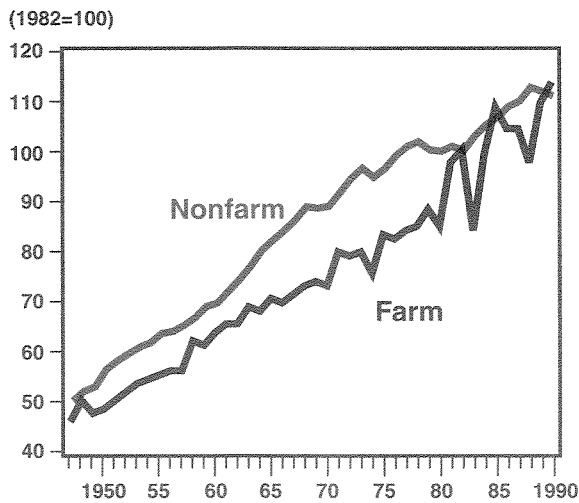
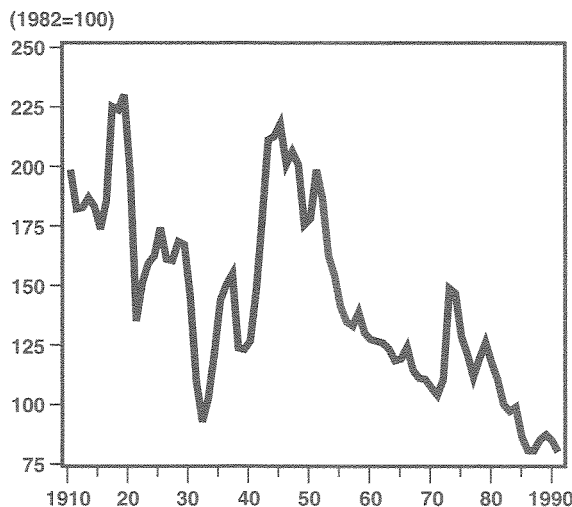


Figure 2
Index of Real Prices Received by Farmers



Productivity advances in the farm sector have enabled fewer people to produce a larger quantity of output, freeing redundant resources to migrate to other sectors. In fact, since 1970, farm productivity growth has outpaced nonfarm productivity growth, rising at a 2.2 percent annual rate, while nonfarm productivity has grown at a 1.2 percent rate. This gap has widened further since 1980, as farm productivity grew at a 2.9 percent rate, while nonfarm productivity grew at a 1.1 percent rate (see figure 1).

Productivity is a key determinant of the income received by a specific resource. This insight reflects the fact that more productive resources tend to receive higher pay. As discussed below,

rising productivity in agriculture has likely affected the relative growth of farm income vs. nonfarm income since the 1970s.

Characterizing the Farm Problem

Figure 2 illustrates one of the key elements of the farm problem—declining real farm commodity prices. Relative to the gross national product (GNP) implicit price deflator, commodity prices received by farmers have fallen steadily over the years. While the broad index of nominal farm prices received by farmers has risen at an annual rate of 2.3 percent since 1910, the broad measure of aggregate prices has risen at an annual rate of 3.5 percent. Thus, in real terms, farm commodity prices have fallen at an annual rate of about 1.2 percent per year. This trend, which may be disconcerting to some, is a direct consequence of the continual productivity advancements made by the agricultural sector over time and should, thus, be viewed in the context of this development.

Table 1 illustrates the other primary characteristic of the farm problem—the level of farm income relative to nonfarm income. The nominal median farm household and nonfarm household incomes are shown for selected years since 1945. During much of the post-World War II period, median farm household income averaged approximately one-half of median nonfarm household income. Not until the late 1960s and early 1970s did farm income reach 70 percent of nonfarm income on a sustained basis. Median farm income has continued to grow faster than median nonfarm income, so that it is now 6 percent higher than nonfarm income (see table 1).⁶

Certainly, increased expenditures on federal farm programs since 1983 have narrowed the difference between farm and nonfarm household income. For example, from 1945 to 1982, government payments constituted 8.4 percent of net cash income (NCI).⁷ With the onset of the farm crisis in the early 1980s, however, government payments as a percent of nominal NCI jumped to 30.3 percent in 1987 and have averaged 17.8 percent since 1983. This is only a partial answer, though. The primary reason for increased farm income relative to nonfarm income is a direct result of faster growth in farm productivity. In stark terms, increased productivity means fewer farmers and larger incomes.

The Fallacy of Low Farm Incomes

Although comparisons of median farm and nonfarm income are instructive, they are somewhat inadequate for comparing actual levels of farm and

Table 1
Median Money Income of Farm vs. Nonfarm Households, 1945-90

Population	1945	1955	1965	1975	1985	1986	1987	1988	1989	1990
Farm (\$/year)	1,291	2,111	4,122	10,845	20,166	21,655	24,978	24,222	28,824	31,589
Nonfarm (\$/year)	2,595	4,840	7,060	13,829	23,703	24,979	26,086	27,280	28,908	29,901
Farm/nonfarm (percent)	49.7	43.6	58.4	78.4	85.1	86.7	95.8	88.8	99.7	105.6

SOURCE: U.S. Department of Commerce: Bureau of the Census, *Money Income and Poverty Status of Families and Persons in the United States* (Washington, D.C.: U.S. Government Printing Office, various years).

nonfarm income.⁸ This is primarily because farms come in many sizes. Table 2 details the breakdown of average farm household income by size during the period 1987-90.⁹ Clearly, farm size is directly associated not only with the farm's net cash income, but with the farmer's equity position as well. Three additional points can be gleaned from table 2.

First, according to the USDA, there were approximately 2.1 million farms in 1990.¹⁰ This is somewhat misleading, however, because nearly 85 percent of these farms sell less than \$100,000 in commodities in a year. In fact, the vast majority of these, a little more than 1.5 million, are essentially small, part-time farmers—also known as “hobby farmers.” The remaining farms in this category, those with \$40,000 to \$99,999 in sales, are essentially what we know as the small, full-time, family farmers. While farms with sales less than \$100,000 represent the bulk of the nation's farms in numerical terms, they are relatively minor in terms of production, generating about 18 percent of total farm income.

The nation's most important producers of food and fiber, on the other hand, are those farms that grow and sell more than \$100,000 in a year. These are the largest and most efficient producers of U.S. farm output, and, accordingly, they garner over 80 percent of total farm income.

Second, a common misconception is that the sale of agricultural commodities is the sole source of income for the farm household. As table 2 suggests, off-farm income (for example, from a working spouse or investment income) significantly adds to farm household income. Therefore, when properly included, farm household income is substantially above the median nonfarm household income. For instance, the small, full-time farmer (those in \$40,000 to \$99,999 sales class) earned about \$47,000 per year, while the larger, family farmer (sales between \$100,000 and \$250,000)

earned nearly \$88,000 per year during the 1987-90 period. By this measure, the family farmer still earns significantly more than their nonfarm counterparts. Moreover, this conclusion would hold even if government income support payments were excluded.¹¹

Finally, the equity position of each farm size is substantial. Although the largest farms have the largest net worth per farm, even the part-time farmers have considerable equity. For the broadly defined, full-time, family farmer (assuming commodity sales of between \$40,000 and \$250,000), their net worth is substantially above the median household net worth of \$72,768, which represents the median net worth of all U.S. owner-occupied households as of 1988. In contrast, the median net worth for all U.S. households in 1988, including those who do not own their own homes, was \$35,752.

Conclusion

Since 1933, government assistance to the agricultural sector has been predicated on the notion of not only preserving our agricultural heritage—by preserving the “family farmer”—but also on the notion that farmers did not earn incomes comparable to their nonfarm counterparts. While this may have been the case during much of this period, the evidence presented here suggests that the “farm problem”—at least the latter aspect of it—no longer holds. Moreover, this conclusion would hold even if government farm payments were excluded. This fact, while often overlooked, reflects productivity growth in the farm sector, which has allowed fewer farmers to produce an ever-increasing share of our nation's output of agricultural products. Thus, governmental policies to bolster farm incomes may be both anachronistic and unnecessary.

Table 2
Number of Farms, Farm Income, Off-Farm Income and Farm Equity by Sales Class, 1987-90

Sales class	Number of farms ¹	Net cash income per farm ²	Off-farm cash income per farm ²	Total farm household income ³
Less than \$20,000	1,254,000	\$ - 296	\$30,856	\$ 30,559
\$20,000 to \$39,999	259,000	10,186	25,831	37,017
\$40,000 to \$99,999	306,000	26,896	19,778	46,674
\$100,000 to \$249,999	214,000	70,442	17,497	87,939
\$250,000 to \$499,999	64,000	152,393	26,573	178,966
\$500,000 to \$999,999	27,000	273,187	25,646	298,833
\$1,000,000 and over	16,000	1,358,956	28,250	1,386,206

Sales class	Government payments per farm ²	Total farm income less government payments	Equity per farm household ^{2,4}
Less than \$20,000	\$ 469	\$ 30,090	\$ 190,000
\$20,000 to \$39,999	3,887	33,130	368,750
\$40,000 to \$99,999	9,150	37,524	468,000
\$100,000 to \$249,999	21,262	66,677	758,750
\$250,000 to \$499,999	37,809	141,157	1,194,250
\$500,000 to \$999,999	45,172	253,661	1,653,250
\$1,000,000 and over	42,787	1,343,419	3,857,250

¹Measured as of 1990.

²Measured as the average of the years 1987 to 1990 in nominal dollars.

³Sum of net cash income and off-farm income.

⁴Includes operator households.

SOURCE: *Economic Indicators of the Farm Sector: National Financial Summary, 1990* (United States Department of Agriculture, November 1991).

¹*The Farm Fiasco* (Institute for Contemporary Studies, 1991), p. 43.

²See Clifton B. Luttrell, *The High Cost of Farm Welfare* (Cato Institute, 1989), for a discussion of the recent history of U.S. farm programs.

³Ronald D. Knutson, J.B. Penn and William T. Boehm, *Agricultural and Food Policy* (Prentice-Hall, 1983), chapter 1.

⁴See *Economic Report of the President* (Government Printing Office, February 1991), Table B-9.

⁵The food and fiber industry is broadly defined here to "embrace all activities from the provision of farm inputs through commodity production and onto final consumption." See *Economic Report of the President* (Government Printing Office, February 1987), p. 148.

⁶D. Gale Johnson has estimated that, because of factors such as consumption of home-produced products and a rural lifestyle, farm and nonfarm incomes will be approximately equal when farm incomes reach 75 percent to 80 percent of nonfarm incomes. See D. Gale Johnson, "Agricultural Policy Alternatives for the 1980s," in *Food and Agricultural Policies for the 1980s*, D. Gale Johnson, ed. (American Enterprise Institute, 1981), p. 189.

⁷Net cash income (NCI) is the difference between gross cash income and cash expenses. This measure is analogous to household income because farmers use NCI to purchase farmland and farm equipment, retire debt and meet family expenses.

⁸See Jeffrey D. Karrenbrock, "Potential Pitfalls of Interpreting Farm Income Data," *Pieces of Eight*, Federal Reserve Bank of St. Louis (June 1990), pp. 10-13.

⁹For consistency, 1987 is used as the initial period because that is when USDA began to include measures of farm income by sales class of \$1 million and over. Before 1987, the largest classification was \$500,000 and up. This break in the data, therefore, causes a substantial income decline in the \$500,000 to \$999,999 sales class between 1986 and 1987.

¹⁰The U.S. Department of Agriculture (USDA) defines a farm as an establishment that sold or would have sold \$1,000 worth of agricultural products in one year. At current yields and prices, this represents production from about four acres of corn.

¹¹The total farm household income number listed in table 2 is only an approximation and not an actual number. This is because off-farm income is derived from estimates published by the Bureau of Census.