Global Development and Environment Institute
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Boom for Whom?

Family Farmers Saw Lower On-Farm Income Despite High Prices

By Timothy A. Wise and Alicia Harvie*

To listen to the last year of press reports, these have been boom times for U.S. farmers. High prices for agricultural commodities spurred food crises in much of the world, but farmers, we were told, were living the good life. In 2008, the U.S. Department of Agriculture estimated net farm income of $89.3 billion, up slightly from the previous year's record and 50% above the average for the preceding 10 years. This milestone was driven by a surge in major crop prices: from 2006 to 2007 corn prices were up nearly 50%, soybean prices jumped 60%, and wheat prices climbed 50%. Cash receipts for the sector in 2008 were up 35% over 2006.

Along with a record net farm income, USDA reported an average farm operator household income of $86,864 in 2008, 27% higher than in 2003. This seemed to confirm that farm households were better off than those of most Americans, with average farm household income nearly 28% above the average for all U.S. households.

As we pointed out in a 2005 paper, many sector-wide statistics are misleading, and these are no different.[1] To better understand how most farmers fare, one must look behind the press releases and big averages for the "farm sector." GDAE previously examined disaggregated data from the USDA's ARMS survey for 2003, a year of relatively low commodity prices, to illustrate some of the ways that the USDA data is "true, but truly misleading." Recently published survey data for 2007 allow us to examine this issue once again, revealing how family farmers fared in a year with high crop prices. *The data suggest that mid-sized family farmers actually saw lower incomes from farming operations in 2007 than they did in 2003, with high costs and reduced government support outpacing the rise in income from farm sales.*

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Policy Brief
No. 09-02
Feb. 2009

Digging beneath sector-wide averages

As was the case in 2003, it is critical to remove rural residence farms from an analysis of the farm sector. In 2007, these were still almost two-thirds of the farms included in USDA averages. But these "farms" skew the data because they do not aim to make their living from farming; many are retirees or hobby farmers, and many rely primarily on off-farm income. As a consequence, these are part-time farms that often don't mind taking losses on their farming operations.

Fortunately, USDA does a detailed breakdown of its survey data, so anyone who bothers can actually look at various categories of farms by sales volume. The table below compares the Operator Household Income statements from 2003 and 2007 for both the "farming occupation-higher sales" and the "commercial-very large" categories and contrasts it with numbers most widely cited by the USDA and the media for the U.S. farm sector as a whole.

In general, the "farming occupation-higher sales" category is a good proxy for the family farm sector. This group represents small and medium-sized farms whose operators have identified farming as their primary occupation and who gross between $100,000 and $250,000 from farm sales.[2] In 2007, such farms operated on an average 972 acres of land and were still significantly involved in the production of major commodity crops. Without relying on much hired labor, the vast majority of these farmers devoted at least 2,000 hours to their operations that year, something comparable to full-time employment.

Rising prices, declining farm incomes

2007 was a banner year for major crops, with prices significantly higher than they were in 2003, when we last examined this data. Between the two years, corn prices increased 87%, soybean prices rose 47%, and wheat prices jumped 91% in nominal terms.

So how much better off were the higher-sales family farms? Quite a bit, as it turns out, but not from farming. Total household income was up 23%, from $59,623 to $73,260, *but the entire increase came from off-farm income*, which jumped from $30,375 to $47,245 and accounted for 64% of household income. Still, with total household income reaching $73,260 (in nominal terms), 108% of the U.S. average (well below the 128% that USDA farm sector averages suggest), one would have a hard time characterizing these farmers as well-off.

And they certainly were not better-off from farming. What about those high commodity prices? Net income from farm sales indeed increased, from $11,795 to $17,303. That's an impressive jump in percentage terms (47%), but still a small income for a 1,000-acre farm and nowhere near enough to support a family. One reason they didn't pocket more money is that their crops weren't the only commodities with rising prices. Input costs skyrocketed too, particularly for fertilizer and fuels, which increased 67% and 100%, respectively, from 2003 to 2007. So, as any farmer might have told anyone who asked, prices were high but most of the added income went to fuel, fertilizer, seed, feed, and equipment suppliers.

Unfortunately for those same farmers, high prices brought significant reductions in government payments. In fact, average payments fell from $17,453 to $8,712, a drop of $8,741—in other words, more than enough to wipe out the $5,508 gain from farm sales. Taken together, income from farming and payments declined from $29,248 to $26,015 between 2003 and 2007. So much for the great boon of high prices to these family farmers. Only the 56% rise in off-farm income made them better off than they were in 2003.

Who did well, then? The largest commercial farmers were the only family farm subgroup in the USDA survey to show a net increase in income from higher prices in 2007. Very large commercial farms (family-owned operations making more than $500,000 in gross sales) saw a 46% jump in net income from farm sales, from $130,263 to nearly $189,547, easily compensating for their $12,196 drop in government payments between the two years. With

off-farm income dropping only slightly between the two years, the 21% increase in total household income, from $220,971 to $267,130, came entirely from on-farm income, thanks to high prices.

As these data show, even with high prices family farmers are pinched. They saw most of the income from higher farm sales go to input suppliers, whose prices rose as fast or faster than crop prices. And while they were happy to get more of their income from the market, the drop in government payments wiped out what was left of the gains from farm sales. They were better off in 2007 only because of the 56% jump in off-farm income, which in 2007 accounted for 64% of household income. The USDA suggests that the impressive gain in household income is a sign of the robust health of the farm economy, but these numbers – and any mid-sized crop farmers – would suggest otherwise.

Full-Time Family and Commercial Farm Operator Income, 2003 and 2007

	Farming Occupation-Higher Sales (Sales $100,000-$249,999)		Commercial-Very Large (Sales > $500,000)		Farm Sector Total *Includes rural residence farms*
	2003	2007	2003	2007	2007
Number of farms	136,314	124,999	66,734	76,652	2,069,371
Average acreage per farm (1)	1,116	972	2,306	2,677	416
Average operator household income					
Farming sources	11,795	17,303	130,263	189,547	4,601
Government payments (2)	17,453	8,712	46,675	34,479	4,004
Total from farming sources	29,248	26,015	176,938	224,026	8,605
From off-farm sources	30,375	47,245	44,033	43,104	77,618
Total	59,623	73,260	220,971	267,130	86,223
Percent U.S. avg household income	101%	108%	374%	395%	128%

Sources: USDA/ERS, Operator Household Income, for Farm Operator Households, by Farm Typology.
(1) USDA/ERS, Structural Characteristics, for All Farms, by Farm Typology, 2007 and 2003, from ARMS
(2) USDA/ERS, Farm Business Income Statement, for All Farms, by Farm Typology, 2007 and 2003, from ARMS

2009: "another good year for the farm economy?"

USDA is forecasting net farm income in 2009 to be $71.2 billion, a 20% drop from the 2008 estimate of $89.3 billion. Yet, the agency is puzzlingly optimistic, noting how the new net farm income figure is among the top five ever (if only in nominal terms) and calling 2009 "another good year for the farm economy," due to high demand for feed crops, oilseeds and food grains.[3]

But like most farm sector averages, these numbers mask the financial bind most farmers have encountered. In 2008, the prices of both commodities and inputs swung violently, spiking markedly in the first half of the year only to plunge by year's end. Production expenses for 2008 rose an estimated 14.2%, reaching a nominal high of $291 billion. Even though costs are expected to drop in 2009 by 4.6%, or $13.5 billion, farm prices for the year are projected to plummet, driving cash receipts down 9%. Expenses in 2009 are projected to consume 80% of gross farm income, up from 77% in 2003 and 75% in 2007.

Crisis in dairy

The situation has already reached crisis proportions in the dairy industry. In February 2009, the Chicago Mercantile Exchange had milk futures at $9.30 per hundredweight, nearly 50% below the 2008 average price of $17.44, which even in a year of high prices was below USDA's estimated costs of production. In a pattern typical of deregulated commodities markets, industrialized U.S. producers increased output with the incentive of high prices only to leave the industry swimming in milk when the recession reduced domestic demand. In addition, export demand is projected to be down 40% in 2009. Adding to the problem, other large exporters have been flooding the international market. The European Union is exporting more than twice the dairy products it was in 2006, and New Zealand, the world's second largest exporter, has recovered from its drought in time to contribute to the 2009 price freefall.

In the United States, dairy revenues are projected to drop 35%, with net income down a startling 71%. Industry officials warn that more than 1.5 million of the nation's 9.3 million milking cows could be slaughtered this year as dairy operators look to cut costs and generate cash. In January alone, eleven Vermont dairy farms went out of business.

As the USDA data shows, any suggestion that farmers should be able to weather this storm by drawing on savings from the price boom is misguided. For family farmers, at least, there were no savings. With prices falling precipitously and costs remaining stubbornly high, and with credit tight due to the financial crisis, family farmers face a very difficult year on the farm.

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Endnotes

[1] Wise, Timothy A, "Understanding the Farm Problem: Six Common Errors in Presenting Farm Statistics." *GDAE Working Paper No. 05-02*, March 2005: http://www.ase.tufts.edu/gdae/Pubs/wp/05-02TWiseFarmStatistics.pdf.

[2] In 2005, we suggested USDA's "Farming Occupation" farms were a good proxy for typical small family farmers. These include both "lower sales" farms with gross sales between $25,000 and $100,000 and "higher sales" farms that gross between $100,000 and $250,000. However, changes in USDA's methodology make the lower sales category unreliable for multi-year comparisons, and completely different from the farms we characterized in 2005. For clarity, here we analyze the higher sales class on its own.

[3] USDA-ERS. (2009). "Briefing Rooms: Farm Income and Costs: 2009 Farm Sector Income Forecast." Retrieved February 18, 2009.

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Suggested citation: Wise, Timothy A. and Harvie, Alicia "Boom for Whom? Family Farmers Saw Lower On-Farm Income Despite High Prices," *GDAE Policy Brief 09-02*, Medford, Mass.: Global Development and Environment Institute, Tufts University, February 2009.
Download: http://www.ase.tufts.edu/gdae/Pubs/rp/PB09-02BoomForWhomFeb09.pdf

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