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A Look at the Differences Between Higher and Lower Profit Farms in Illinois as Incomes Change

Bradley Zwilling

Illinois FBFM Association and Department of Agricultural and Consumer Economics University of Illinois

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Last month, we looked at characteristics of higher profit farms using a ten-year average and different regions of the state (see *farmdoc daily, July 21, 2023).* Using data from the Illinois Farm Business Farm Management (FBFM) Association from 2011 through 2022, we will look at four different three-year averages that have varying levels of income to analyze selected differences between the highest profit grain farms (high one-third) and the lower profit grain farms (low one-third). The farms were sorted into thirds based on production per dollar of non-feed costs (accrual gross farm returns divided by total economic non-feed costs).

For this study, we analyze farms in central Illinois with higher productivity soils. There are very little livestock on these farms, and they all were 500 acres or more. The high-income groups were the three-year averages from 2011 to 2013 and 2020 to 2022. Incomes averaged over $240,000 for these two groups. The low-income groups were the three-year averages from 2014 to 2016 and 2017 to 2019. Average income for these groups was about $65,000 and $89,000 respectively.

Farm Size and Land Tenure

Table 1 shows the differences in select factors between the high and low third farms in central Illinois with the higher productivity soils. When looking at differences in tillable acres during these different periods, the high one-third of the farms tend to be much larger than the low one-third during times of lower incomes. During periods of higher incomes, the high one-third of the farms had 11 percent less of their total acres cash rented than the low one-third. This difference was only 2 to 3 percent less in low-income years.

Table 1. Differences Between the High and Low Third by 3 Year Averages for Central Illinois High Productivity Farms

	2011-13	2014-16	2017-19	2020-22
Tillable Acres	140	348	482	238
% Owned	-4	-9	-11	-4
% Crop-Shared	15	12	13	16
% Cash Rented	-11	-3	-2	-11
% Corn Acres	-3	-3	-3	0
Corn Yield (Bushels)	16	12	8	5
Crop Returns	**$152**	**$89**	**$69**	**$132**
Total Non-Feed Costs	**(134)**	**(145)**	**(156)**	**(164)**
Management Returns	**$287**	**$238**	**$211**	**$300**

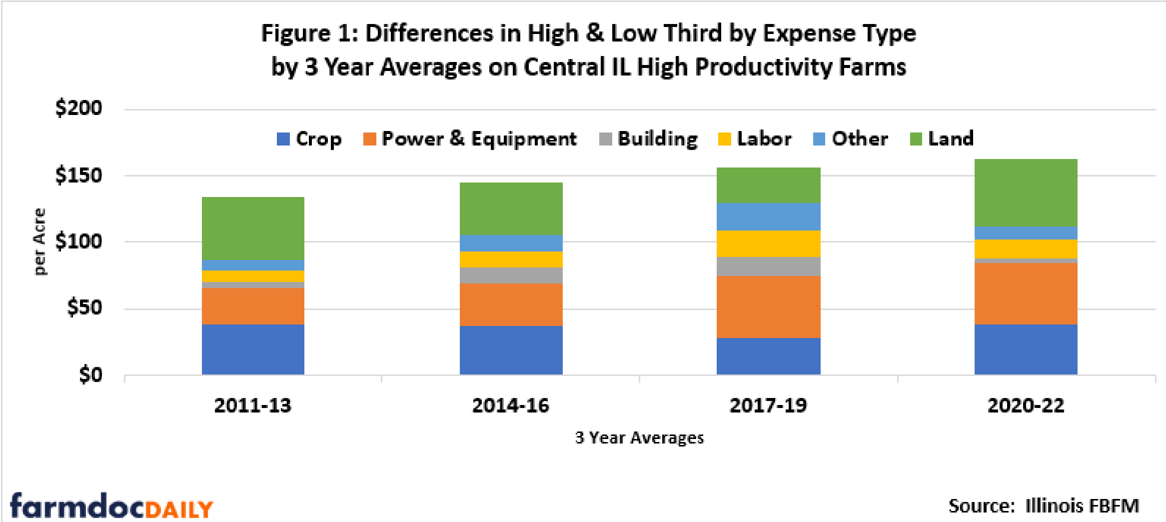
farmdocDAILY Source: Illinois FBFM

Corn Yield & Rotation

In central Illinois with the higher soil ratings, the higher profit farms had zero to three percent less acres of corn in their crop rotation, however the amount of income for these years show no real impact. When looking at corn yield over these periods of time, the difference between the high and low groups has been narrowing over time, going from 16 bushels more for the 2011 to 2013 average to 5 bushels more for the 2020 to 2022 average. However, the crop return difference, a large component of gross farm income, is a much larger difference in times of higher incomes. The same holds true for management returns.

Expenses

Table 1 shows the difference between the high profit and low profit groups for total non-feed costs. Over the periods of time, this difference in cost has been growing, but it seems the amount of income in aggregate has no effect on total non-feed costs. However, in Figure 1, we see the expenses broken out into five expense categories, by the same three-year averages. The expenses listed not only include cash costs, but also accrual adjustments as well as economic charges for items such as unpaid labor (family or farm operator) and interest charges on non-land and land. When looking at the graph, we see that crop costs have varied some over time but are not impacted by the level of income during this period. For the power and equipment group, this has been steadily increasing over time, but in total, not impacted by incomes.



As we look at the rest of the expense categories, there seems to be more impact based on income. For the categories of buildings, labor, and other expenses, these tend to show much larger differences much lower for the high one-third during lower incomes). However, when we look at land costs and incomes are *higher* there are much larger differences between the higher and lower profit groups. This means that the land costs are much lower for the higher profit groups when incomes are higher.

Summary

There are many differences between the high one-third and low one-third farms in Illinois. As we can see from this subset of Illinois FBFM farms that are in central Illinois, the differences also can be impacted based on the income levels. By using three-year averages over the last twelve years, we have tried to normalize some of the differences. When looking at expenses, we can see in general buildings, labor and other costs (insurance, miscellaneous, non-land interest charges, etc) are typically much lower for the higher profit farms when incomes are lower on average. The opposite is true for land costs. They are typically much lower for the higher profit groups during periods of higher incomes. As farmers are planning for the 2024 season, keep in mind some of these thoughts and observations. Careful analysis of these differences in your own farm business begins with good records that are consistent over time.

The author would like to acknowledge that data used in this study comes from the Illinois Farm Business Farm Management (FBFM) Association. Without Illinois FBFM, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,000+ farms and 70 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide independent, on-farm counsel along with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact our office located on the campus of the University of Illinois at 217-333-8346 or visit the FBFM website at www.fbfm.org.

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