



Weekly Farm Economics: Projected Net Incomes on Illinois Grain Farms in 2019 and 2020

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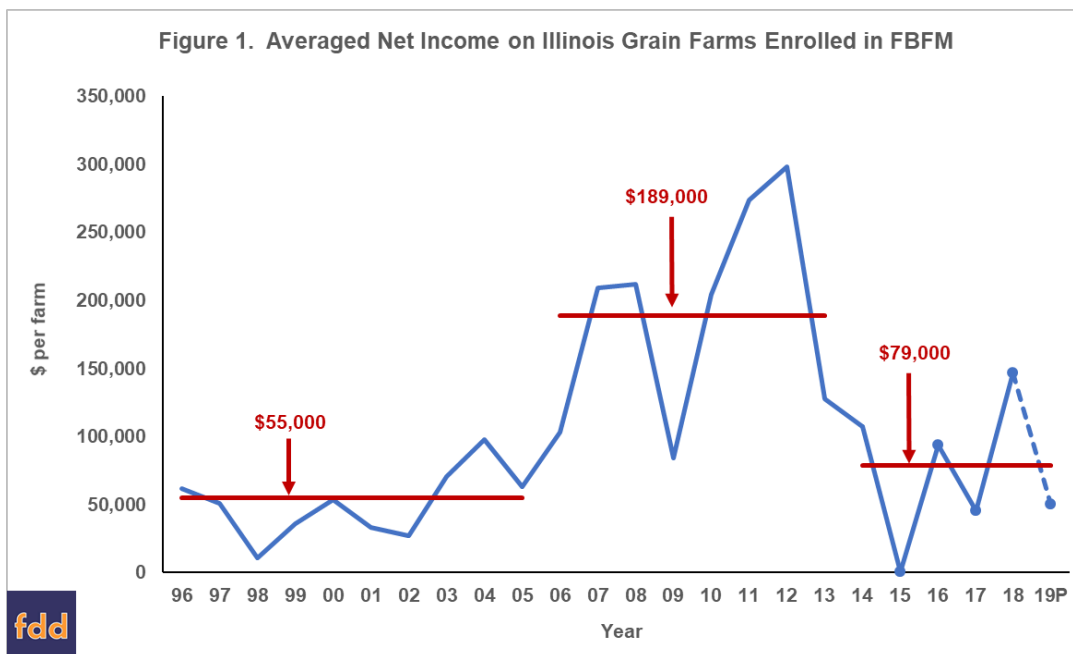
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Due to lower corn and soybean yields, 2019 net farm incomes on Illinois grain farms are projected to decline more than \$80,000 per farm from 2018 levels. The low yields are partially offset by higher corn and soybean prices and higher MFP payments in 2019 as compared to 2018. Incomes in 2020 are projected to be negative if yields are at trend levels and Market Facilitation Program (MFP) payments do not occur.

Historic Net Incomes on Illinois Grain Farms

Figure 1 shows average yearly net incomes on grain farms enrolled in Illinois Farm Business Farm Management (FBFM). These net incomes are averages across all grain farms in Illinois. Size, tenure relationships, and financial structures vary across these farms. Many farms are below 1,000 tillable acres, and some farms have over 8,000 acres. Over time, the size of farms has grown. In 2018, the average number of tillable acres was around 1,500 acres.

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As can be seen in Figure 1, there are three distinct periods of net income. Between 1996 and 2005, net income averaged \$55,000 per farm. This period was characterized by relatively low corn and soybean prices, resulting in low incomes. Income during this period reached a low of \$11,000 in 1998, a year in which government programs were instituted to provide price and income support to grain farms.

From 2006 to 2013, incomes were much higher, averaging \$189,000 per farm. Corn and soybean prices were higher than the other two periods due to increased use of corn in ethanol production, growing export demand for soybeans, and yield shortfalls occurring in several years. The prime example of a yield shortfall was 2012, a year of intense drought over much of the eastern and lower corn-belt. While yields were low in 2012, corn and soybean prices reach all-time highs. High prices, along with proceeds from crop insurance products, resulted in a record income of \$298,000 per farm.

Prices have been lower since 2013, with corn prices generally being below \$4.00 per bushel and soybean prices being below \$10.00 per bushel. From 2013 to 2018, net incomes have averaged \$79,000 per farm, about \$110,000 less per farm than the 2006-2012 period. Incomes during the 2013-2018 period have been \$24,000 higher than the 1996-2006 period, but have been much more variable. Incomes have varied from \$500 per farm in 2015 up to \$147,000 in 2018.

Compared to 2013 through 2017, incomes were much higher in 2018. In 2018, soybean prices fell partially due to U.S. trade disputes with China and other countries. In 2018, central Illinois farms on high-productivity farmland averaged \$8.85 per bushel of soybeans, down from the \$9.81 per bushel average from 2014 to 2018 (see Table 1). Two factors countered this price decline resulting in higher 2018 incomes:

1. Yields were exceptional. While yields have been high since 2014, 2018 yields were truly outstanding. On central Illinois farms, corn yields averaged 237 bushels per acre in 2018, 16 bushels per acre higher than the 221 bushel average from 2014 to 2017. Soybean yields averaged 74 bushels per acre, 8 bushels higher than the 67 bushel average from 2014 to 2017.
2. Market Facilitation Program (MFP) payments. In 2019, MFP payments in central Illinois averaged \$122 per acre for soybeans and \$1 per acre for corn. Without these payments, 2018 incomes would have been below the 2013-2017 average.

Table 1. Revenue on Central Illinois Grain Farms with High-Productivity Farmland that are Enrolled in Farm Business Farm Management

	Year						
	2014	2015	2016	2017	2018	2019P	2020P
Panel A. Corn							
Yield per acre	231	200	228	227	237	205	211
Price per bu	\$3.76	\$3.79	\$3.47	\$3.36	\$3.60	\$3.90	\$3.90
Crop revenue	\$869	\$758	\$791	\$763	\$853	\$800	\$823
ARC/PLC	4	45	12	1	0	10	0
MFP	0	0	0	0	1	82	0
Crop insurance proceeds	10	31	2	6	2	10	0
Corn gross revenue	\$883	\$834	\$805	\$770	\$856	\$902	\$823
Panel B. Soybeans							
Yield per acre	64	66	69	68	74	58	63
Price per bu	\$10.67	\$9.08	\$9.85	\$9.62	\$8.85	\$9.00	\$9.00
Crop revenue	\$683	\$599	\$680	\$654	\$655	\$522	\$567
ARC/PLC	4	45	12	1	0	10	0
MFP	0	0	0	0	122	82	0
Crop insurance proceeds	5	7	1	3	4	5	0
Soybean gross revenue	\$692	\$651	\$693	\$658	\$781	\$619	\$567
Average Gross Revenue	\$787	\$743	\$749	\$714	\$819	\$761	\$695

¹ Given a 50% corn and 50% soybean rotation.

Source: Illinois Farm Business Farm Management as reported in Revenue and Cost for Illinois Grain Crops, management section of *farmdoc*.

Projected 2019 Incomes

The average net income in Illinois will be below \$60,000 per farm, much lower than in 2018, with possibilities for incomes approaching 2015 levels on many farms. Most of the decline in net income is associated with lower gross revenue, as opposed to a significant change in expenses. On central Illinois high-productivity farmland, gross revenue averaged \$819 per acre in 2018, given that 50% of the acres were in corn and 50% were in soybeans (see Table 1). Average gross revenue is projected at \$761 per acre in 2019, \$58 lower than in 2018. Factors impacting revenue from 2018 to 2019 are:

1. Lower yields. In central Illinois, corn yields are projected at 205 bushels per acre in 2019, down by 32 bushels per acre from 2018 levels. Soybeans yields are projected at 58 bushels per acre, down by 16 bushels per acre from the 74 bushel average in 2018. Lower yields are the major reason for lower incomes.
2. Prices are projected to be higher in 2019 as compared to 2018. Projections are made with a \$3.90 corn price in 2019, compared to a \$3.60 price in 2018. Soybean prices are projected at \$9.00 for 2019, compared to \$8.85 in 2018. Higher prices partially offset lower yields, resulting in higher incomes.
3. MFP payments are projected at \$82 per acre for both corn and soybeans in 2019. MFP payments will average about \$20 per acre higher in 2019 as compared to 2018 on Illinois grain farms. Without MFP payments, average income on Illinois grain farms would be negative in 2019.

The \$58 per acre decline in gross revenue from 2018 results in a net income that is \$87,000 lower per farm (\$58 per acre times 1,500 acres) in 2019. This leads to an estimate of net income for central Illinois farms of \$60,000 (\$147,000 income in 2018 minus \$87,000 less income). Central Illinois likely will have

some of the highest yields in the state, and therefore higher incomes than other areas. In northern Illinois, for example, yields are projected at 185 bushels per acre for corn, resulting in much lower income projections for northern Illinois. As a result, average incomes on Illinois farms likely will be below \$50,000 per farm when averaged across Illinois.

Projected 2020 Incomes

Current projections would place revenue lower in 2020 as compared to 2019. In central Illinois, for example, average gross revenue is projected at \$695 per acre in 2020, a decrease of \$66 per acre from 2019 projected levels of \$761 per acre (see Table 1). These projections are based on:

1. A return to trend yields, which are higher than 2019 yields. Projections use a 211 bushel per acre yield for corn and 63 bushels per acre for soybeans.
2. Stable prices of \$3.90 per bushel for corn and \$9.00 per bushel for soybeans.
3. No MFP payments.
4. No commodity title payments from Agricultural Risk Coverage or Price Loss Coverage.

These values would result in a negative average net income for 2020. Many factors could result in higher incomes, with two of the more likely factors being:

1. A return to above-average yields. From 2014 to 2018, yields averaged 225 bushels per acre for corn and 68 bushels per acre for soybeans. These higher yields would result in average gross revenue of \$745 per acre, still below the \$761 projection for 2019. While higher yields are quite possible, those higher yields could be associated with price declines from projected levels. The impact of potentially lower prices are not considered in the projections, and would partially offset the impacts of higher yields.
2. A continuation of the Market Facilitation Program. Another payment of \$82 per acre will bring gross revenue near 2019 levels if yields return to trend levels.

Summary

Lower yields will contribute too much lower incomes on Illinois grain farms in 2019. A continuation of low incomes is projected into 2020. Without a continuation of the MFP program in 2020, incomes on Illinois farms will be negative if prices do not increase given that trend yields occur.

Soybean prices have fallen since the trade dispute began in 2018. Currently, soybean prices are near \$9.00. Note that this \$9 price results with considerably lower soybean acres in 2019, and much lower yields. In the current supply and demand environment, a return to more normal acres and above-trend yields likely would push prices below \$9.00 per bushel. Farmers have not felt the full impact of lower prices because MFP payments have supported income in 2018 and 2019. If prices do not increase or yields are not exceptional, farms may have negative incomes without MFP payments in 2020.

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