

# FARM ECONOMICS Facts & Opinions

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# Higher Yields and Grain Prices Result in Higher Farm Income Projections for 2006

Net farm incomes were projected for 742 grain farms enrolled in Illinois Farm Business Farm Management (FBFM) Association. Average net farm income in 2006 is projected at \$93,600 per farm, up by over 60% from actual farm income of \$57,700 in 2005. These 742 farms averaged \$61,550 from 2002 through 2005. Hence, the 2006 net farm income is projected to be above the previous four-year average income. Average projected income for 2006 is highest for any year during the 2001 through 2006 time period. (see Figure 1).



# Figure 1. Average Net Farm Income on 742 Grain Farms Enrolled in FBFM, 2001 - 2006P.

Income projections were based on yield estimates obtained from a November 2006 report from the Illinois Agricultural Statistical Service (IASS) (see

http://www.nass.usda.gov/Statistics\_by\_State/Illinois/Publications/Farm\_Reports/2006/ifr0615.pdf). In this report, average yields for Illinois were 165 bushels for corn and 50 bushels for soybeans. Prices used in projections were \$3.25 for corn and \$6.10 for soybeans. It was also estimated that 15 percent of the corn crop was sold at an average price of \$2.40, or 85 cents less than the \$3.25 price and 10 percent of the soybean crop was sold at \$5.90. Net incomes in 2006 are higher than 2005 incomes because of higher yields and prices. Because of the higher grain prices, farm program payments are projected to be considerably less than the year before.

# Yield Variability between Crop Reporting Districts

The 2006 Illinois corn yield was projected at 165 bushels per acre, second highest on record and 22 bushels higher than the 2005 yield of 143 bushels per acre. The average soybean yield for 2006 was projected at 50 bushels per acre, tied for the highest ever and 3.5 bushels higher than the 2005 yield of 46.5 bushels per acre. Changes in yields between 2005 and 2006 vary by crop reporting district (see Table 1). All districts reported higher corn yields in 2005 compared to 2006 except for the southwest district. The northeast district reported the largest increase in corn yields, 48 bushels per acre. Average corn yields in 2006 across districts ranged from a low of 116 bushels per acre in the southwest district to a high of 178 bushels per acre in the northwest district.

Crop	Corn			S	Soybeans		
Reporting District	2005	2006P	Change <sup>1</sup>	2005	2006P	Change <sup>1</sup>	
	Bu. per acre			Bu	Bu. per acre		
Northwest	140	178	38	48	54	6	
Northeast	129	177	48	43	50	7	
West	141	159	18	46	46	0	
Central	146	174	28	51	55	4	
East	158	172	14	51	55	4	
West Southwest	151	165	14	46	48	2	
East Southeast	139	154	15	45	50	5	
Southwest	133	116	-17	41	42	1	
Southeast	130	141	11	43	45	2	
Illinois	143	165	22	46.5	50	3.5	

#### Table 1. Crop Reporting District Yields in Illinois, 2005 and 2006.

<sup>1</sup> Equals yield in 2006 minus yield in 2005.

Source: National Agricultural Statistical Service, Illinois Farm Report, Vol. 27. No. 15., IFR-06-15, November 2006.

Percentage wise, soybean yields increased less than corn yields. The northeast district also reported the largest increase in soybean yields, seven bushels per acre. The west district reported the same soybean yield in 2006 as in 2005, 46 bushels per acre. The lowest average soybean yield was recorded in the southwestern district at 42 bushels per acre. The highest yield was recorded in the eastern and central districts at 55 bushels per acre.

Since the initial crop report made in August, corn yields are projected lower and soybean yields are projected higher. For example, Illinois corn yields were projected to be 172 bushels per acre in August, 7 bushels higher than the 165 bushel estimate made in November. Illinois soybean yields were projected to be 45 bushels per acre in August; five bushels lower than the 50 bushel per acre November estimate.

## **Income Variability between Districts**

Due to yield variability along with other factors, projected incomes vary substantially across crop reporting districts (Figure 2). The highest incomes (\$115,200 to \$119,400) are projected in the northeast and northwest districts in the state. The lowest income is projected in the southwest district (\$38,000). Incomes in the other districts range from \$49,400 in the western district to \$106,400 in the west southwest district. For most districts, the projected incomes are considerably higher than the year before. The projected income in the southwestern district had a decline (\$37,700). The southwestern district is the only district with a projected decline in incomes compared to the year before.





Figure 2. Projected Net Farm Income by Crop Reporting District

# **Effect of Variations in Grain Prices on Farm Income**

Table 2 illustrates the effect of different corn and soybean prices on projected farm incomes. The first set of prices, \$2.50 per bushel for corn and \$5.50 per bushel for soybeans, would be in the range cash prices were in early October. With this set of prices, farm income is projected at \$30,340, or about \$63,000 less than projected net farm income using the second set of prices, which were the prices used in the study. The third set of prices, \$3.50 for corn and \$6.40 for soybeans, which are in the range of actual cash prices at the end of the year, would result in net farm income of \$116,400, or about \$23,000 higher than net farm income using the prices used in the study. This illustrates that given all other factors the same, farm incomes can vary substantially from farm to farm depending on when the crop is marketed.

Table 2. Projected Farm I	able 2. Projected Farm incomes Using Different Corn and Soybean Prices.					
Corn Price	Soybean Price	Farm Income				
\$2.50	\$5.50	\$30,340				
\$3.25	\$6.10	\$93,600				
\$3.50	\$6.40	\$116,400				

## **Projected Increase in Operating Expenses**

Operating expenses were projected to increase again in 2006 as compared to 2005. However, higher grain prices and yields more than offset the effect of higher input prices. The study used a 9 percent increase in crop expenses (fertilizer, pesticides and seed) which increased total expenses on average about \$9,100 per farm. Fuel and oil expenses were increased 15 percent which added about \$2,400 to total expenses.



## **Government Farm Program Payments**

Government farm program payments will have a significantly lower impact on farm income in 2006 as compared to 2005 due to the higher grain prices. The net farm income projections only include direct payments, which producers receive each year. No loan deficiency payments or counter-cyclical payments were included in the projected income. Total farm program payments (all direct payments) are estimated to be about \$16,000 in 2006.

## **Accuracy of Projections**

Actual average income will vary from these projections. Most of the variation will result from changes in yields and prices:

Corn yield:A one bushel change in corn yield changes average income by about \$1,300.Soybean yield:A one bushel change in soybean yield changes average income by about \$1,900.Corn price:A \$.05 change in corn price changes average income by about \$3,500.Soybean price:A \$.20 change soybean price changes average income by about \$3,500.

## Summary

Farm incomes are projected to be almost \$36,000 per farm higher in 2006 compared to actual farm incomes in 2005. The 2006 average income is projected to be the highest of any year during the last five years. Higher yields and grain prices are the primary reasons for the higher incomes and more than offset higher costs. Incomes will vary across the state due to variations in corn and soybean yields. The highest incomes are projected across the northern districts in the state with the lowest income projected in southwest Illinois. Most areas of the state have significantly higher incomes than the year before. Government farm program payments will make up a significantly smaller part of net farm income due to the higher grain prices.

## Acknowledgements

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