



## 2016 Gross Revenue and Income Projections for Corn and Soybeans in Central Illinois

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With harvest at a close, fairly accurate estimates of yields can be made, leading to more accurate estimates of 2016 gross revenues. Gross revenues and returns for corn and soybeans grown in central Illinois are presented in this article. Compared to 2015, 2016 gross revenue is projected to be lower for corn even though yields are much higher in 2016. Gross revenue for soybeans is projected higher in 2016 than in 2015 because of higher yields and prices. Overall, returns will average positive across corn and soybeans, but will still be at very low levels. Incomes in central Illinois will be higher on most farms in 2016 than in 2015, but still at low levels.

### Revenue Projections

Revenue projections in the following sections will be given for the average of farms in central Illinois with high-productivity farmland. These projections are compared to historic results for farms enrolled in Illinois Farm Business Farm Management (FBFM). Historical returns are summarized in a publication entitled *Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans*. These revenue projections will be given for corn, then soybeans, and finally a blended acre consisting of 60% corn and 40% soybeans. For each crop, revenue projections include three items:

1. Crop revenue. Crop revenue is yield times price. Yield for 2016 will be a projection based on U.S. Department of Agricultural estimates, as well as yield reports from farms. Price received for crop are estimates based primarily on bid prices and prices on futures contracts.
2. ARC-CO payments. Agricultural Risk Coverage at the county level (ARC-CO) payments, are for the 2016 year, which will be received in the fall of 2017. Impacts of the timing of ARC-CO payments on cash rent bidding are covered in a [November 22, 2016 \*farmdoc daily\* article](#). More detail on the 2016 ARC-CO projections are provided in a [November 15, 2016 \*farmdoc daily\* article](#).
3. Crop insurance payments. Due to high yields, crop insurance payments likely will be very low in 2016.

These 2016 projections are compared to gross revenues from 2000 to 2015 in graphs (see Figure 1). Components of revenue will be stacked in bar graphs, where the sum of the above three components equals gross revenue. For comparison purposes, total costs for cash rent farmland also are given.

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These costs are all financial costs and include non-land costs and cash rents. The levels of these costs are reported in [Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans](#). Overall, costs in 2016 are projected to go down.

### Corn Revenue in Central Illinois

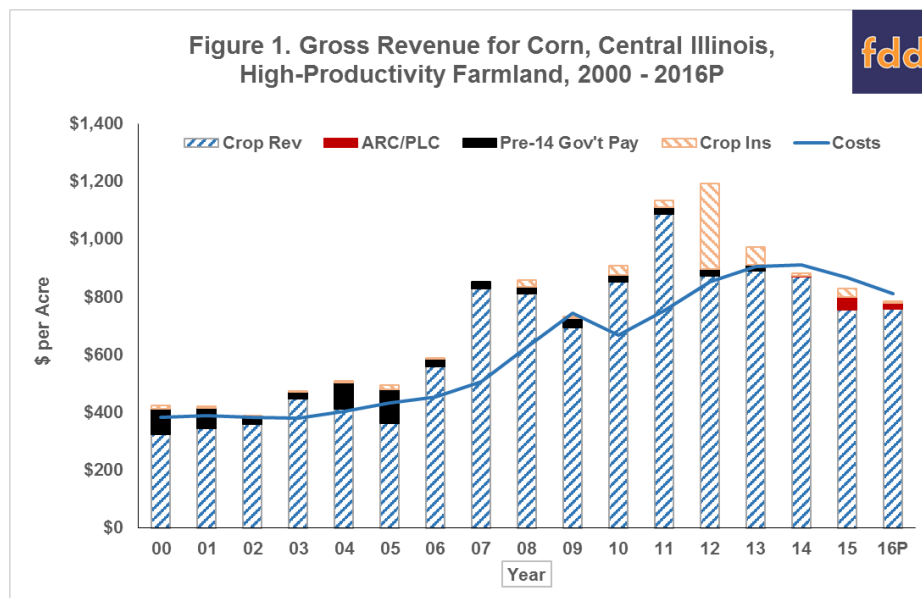
U.S. Department of Agriculture projects 2016 yield for Illinois at 202 bushels per acre, the highest yield on record, which is 2 bushels higher than the 200 bushel Illinois yield in 2014. Farm reports suggest that central Illinois is having yields near those of 2012. As a result, a 231 bushel per acre yield is used for central Illinois, high-productivity farmland, the same yield for this group in 2014. A \$3.30 corn price is used in making 2016 projection.

A 231 yield and a \$3.30 price results in \$762 of crop revenue, slightly higher than 2015 crop revenue of \$759 per acre. While the 2016 projected yield of 231 is projected to be 31 bushels higher than the 2015 yield of 200 bushels per acre, the 2016 price is projected to be lower. Central Illinois farmers received \$3.77 per bushel for corn grown in 2015, a \$.47 per bushel higher price than the projected \$3.30 in 2016. Lower prices counter higher yields resulting in roughly the same crop revenue for corn.

The 2016 ARC-CO payments -- which will be received in the fall of 2017 -- are projected at \$20 per acre. This \$20 represents a blend of corn and soybean base acres. Because crop plantings do not matter, the same \$20 ARC-CO payment also is used for soybean. The \$20 payment for 2016 is roughly half the \$45 per acre 2015 ARC-CO payment received this fall.

Crop insurance is estimated to be \$10 per acre. This is the same as the average for 2014.

Given these estimates, gross revenue for corn is estimated at \$792 per acre, down by \$38 per acre from the 2015 level of \$830 per acre (see Figure 1). Since a high of \$1,192 per acre in 2012, gross revenue for corn has decreased by \$400 per acre.



Gross revenue is projected below average costs on cash rent farmland. In 2016, costs are projected at \$811 per acre, \$19 higher than gross revenue. If projections hold, 2016 will be the third year in a row where total costs exceed gross revenue.

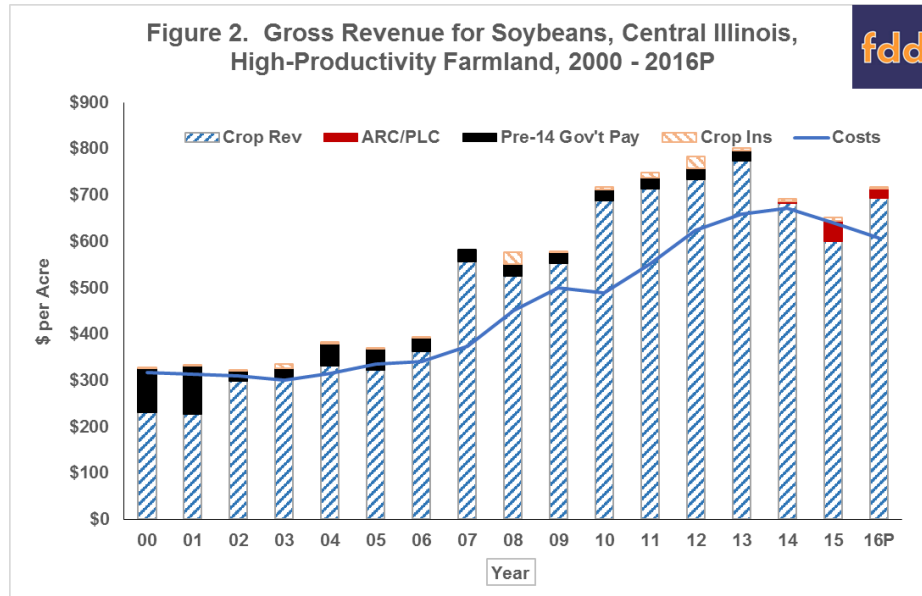
### Soybean Revenue in Central Illinois

The U.S. Department of Agriculture projects 2016 state yield for Illinois at 62 bushels per acre, an all-time high that is 6 bushels per acre higher than the 2015 state yield. For revenue projection, a 73 bushels per acre yield is used, 7 bushels higher than the 2016 yield of 66 bushels per acre. A price of \$9.50 per bushel is used in revenue projection, \$.42 higher than the 2015 price of \$9.08.

For 2016, a 66 bushel per acre yield and a \$9.50 prices result in \$694 of crop revenue. The \$694 crop revenue projection is \$95 per acre higher than the 2015 crop revenue projections for 2016.

Similar to corn, ARC-CO payments are projected at \$20 per acre. Crop insurance is projected to be very low at \$4 per acre.

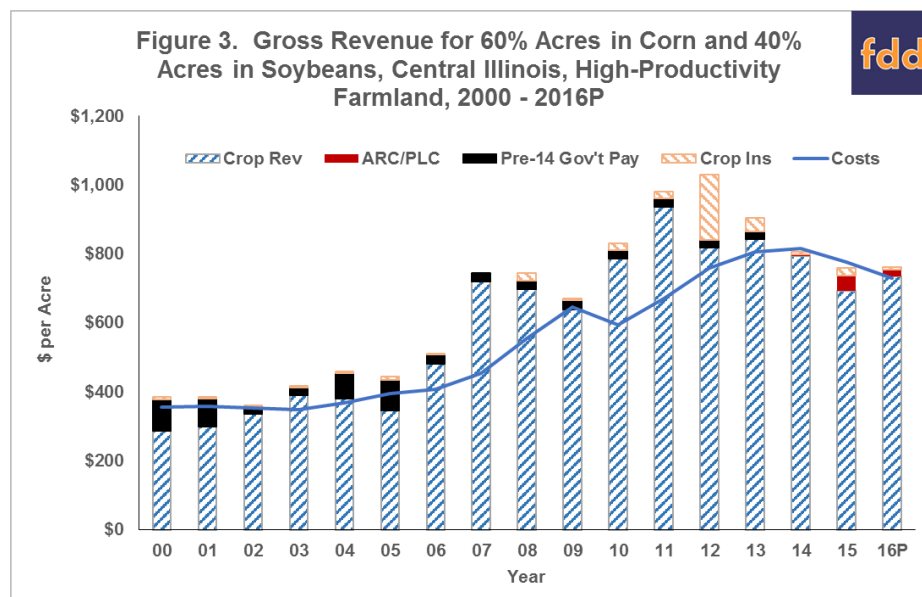
Given these estimates, 2016 gross revenue is projected to be \$718 per acre, up by \$66 per acre from \$651 per acre in 2015 (see Figure 2). The 2016 gross revenue projection also is \$26 per acre higher than the 2014 projection of \$692 per acre. The 2016 revenue projection still is below gross revenues from 2011 to 2013. The high gross revenue for soybeans occurred in 2013 and was \$802 per acre. The 2016 projected revenue is \$66 per acre below the 2013 high.



Unlike corn, soybeans are projected to be profitable in 2016. Total costs are projected at \$608 per acre, \$110 lower than gross revenue.

**Blended acre**

Figure 3 shows gross revenues and costs for a blended acre of corn and soybeans given that 60% of the acre is in corn and 40% are in soybeans. Gross revenue in 2016 is projected at \$762 per acre, \$3 per acre higher than gross revenue in 2015. Costs are projected at \$729 per acre in 2016, \$32 per acre lower than the \$762 of gross revenue. This suggests positive returns of \$32 per acre in 2016, which is higher than the -\$19 return for 2015. While positive, returns for 2016 are relatively low.



## Commentary

The following observations come from the above revenue projections:

1. Gross revenue for corn is projected lower in 2016 than in 2015, even given much higher yields in 2016. Lower prices lead to lower gross revenue. Returns are projected to be negative for 2016.
2. Gross revenue for soybeans is projected to be higher in 2016 than in 2015. Gross revenue is up because of record-setting yields in 2016 and higher prices in 2016. Returns are projected to be positive for soybeans in 2016.
3. Returns across corn and soybean acres are projected to be positive. Negative returns from corn are offset by positive returns from soybeans. Positive soybean returns, along with continuing ARC-CO payments, are leading to higher returns in 2016 as compared to 2015.

The above estimates are averages. Farms will differ from these averages because of yield and price differences.

Central Illinois is having above average yields for both corn and soybeans. Regions or farms that have average yields or lower will have much lower incomes. For these farms, incomes in 2016 likely will be lower than 2015 incomes.

The above are projections. Yields likely are close to final levels. Revenue changes would result if prices either increased or decreased substantially.

## References

Schnitkey, G., C. Zulauf, J. Coppess, and N. Paulson. "[ARC-CO Payment Timing and Cash Rent Bidding](#)." *farmdoc daily* (6):221, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, November 22, 2016.

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Schnitkey, G. "[Revenue and Costs for Corn, Soybeans, Wheat, and Double-Crop Soybeans, Actual for 2010 through 2015, Projected 2016 and 2017](#)." Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 2016.