

# **Farm Financial Management in Challenging Times**

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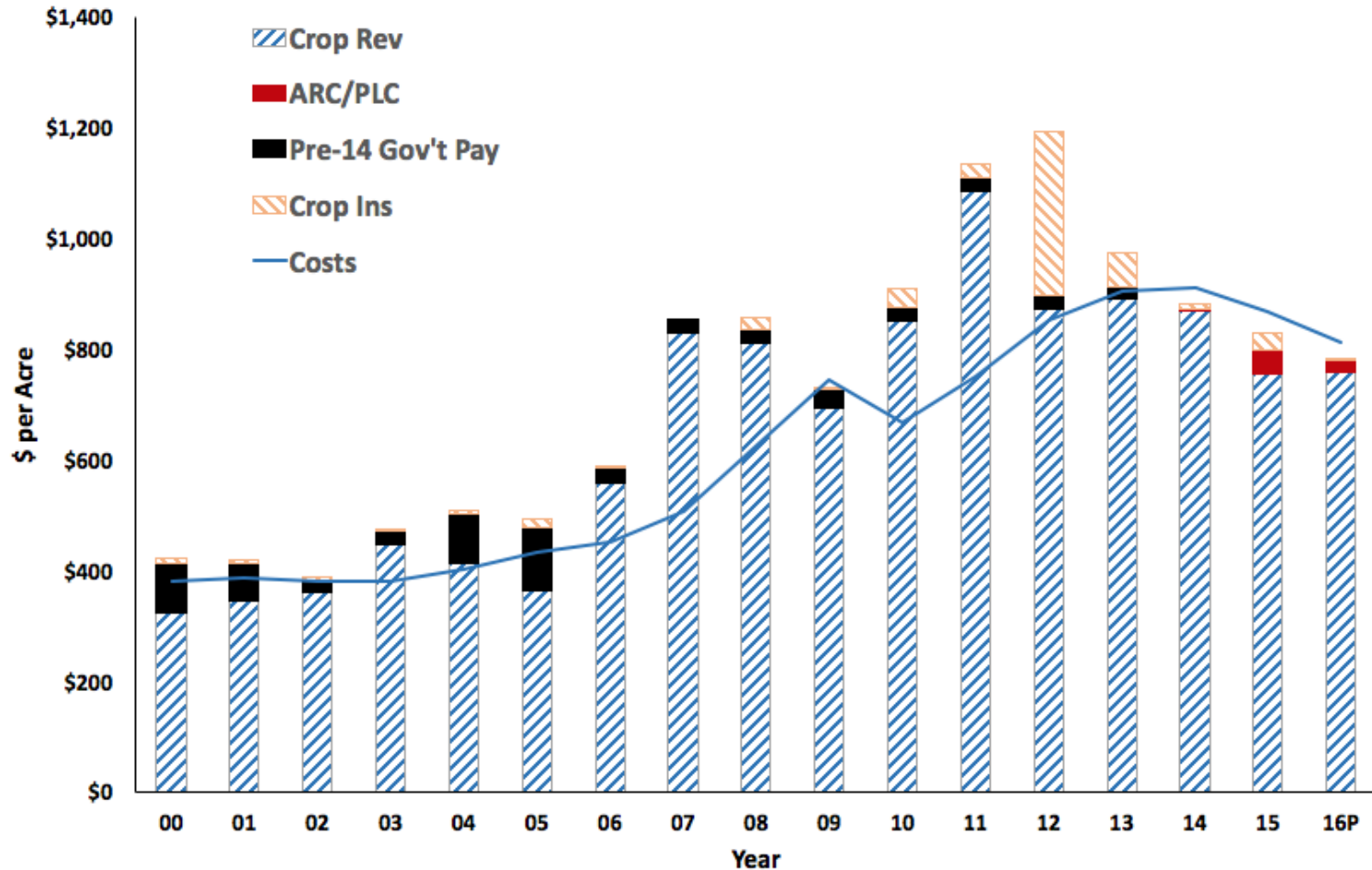
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**University of Illinois**

# Topics

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- 1. Estimated income for 2016**
- 2. Projected incomes for 2017**
- 3. Soybeans in 2017**
- 4. Financial trends**
- 5. Suggestions for 2017**

# Gross Revenue, Corn, Central Illinois, High Productivity

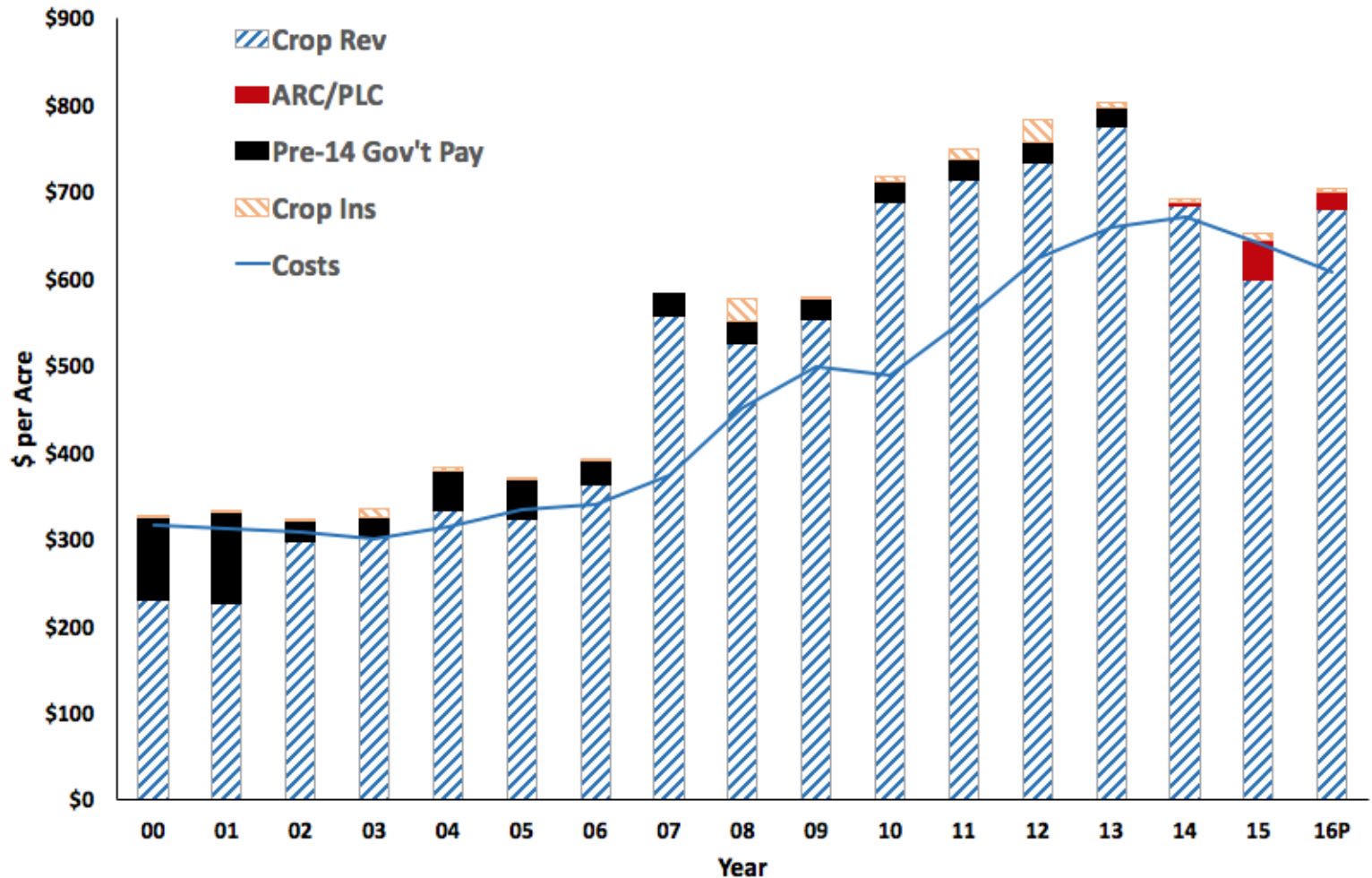


# Gross Revenue, Corn, Central Illinois, High-Productivity

	2015	2016
Crop revenue (200 bu. x \$3.77)	\$754	
Crop revenue (231 bu. x \$3.30)		\$762
ARC	45	20
Crop insurance	<u>31</u>	<u>5</u>
Gross revenue	\$830	\$787

Yields up in 2016 but prices are lower

# Gross Revenue, Soybeans, Central Illinois, High Productivity

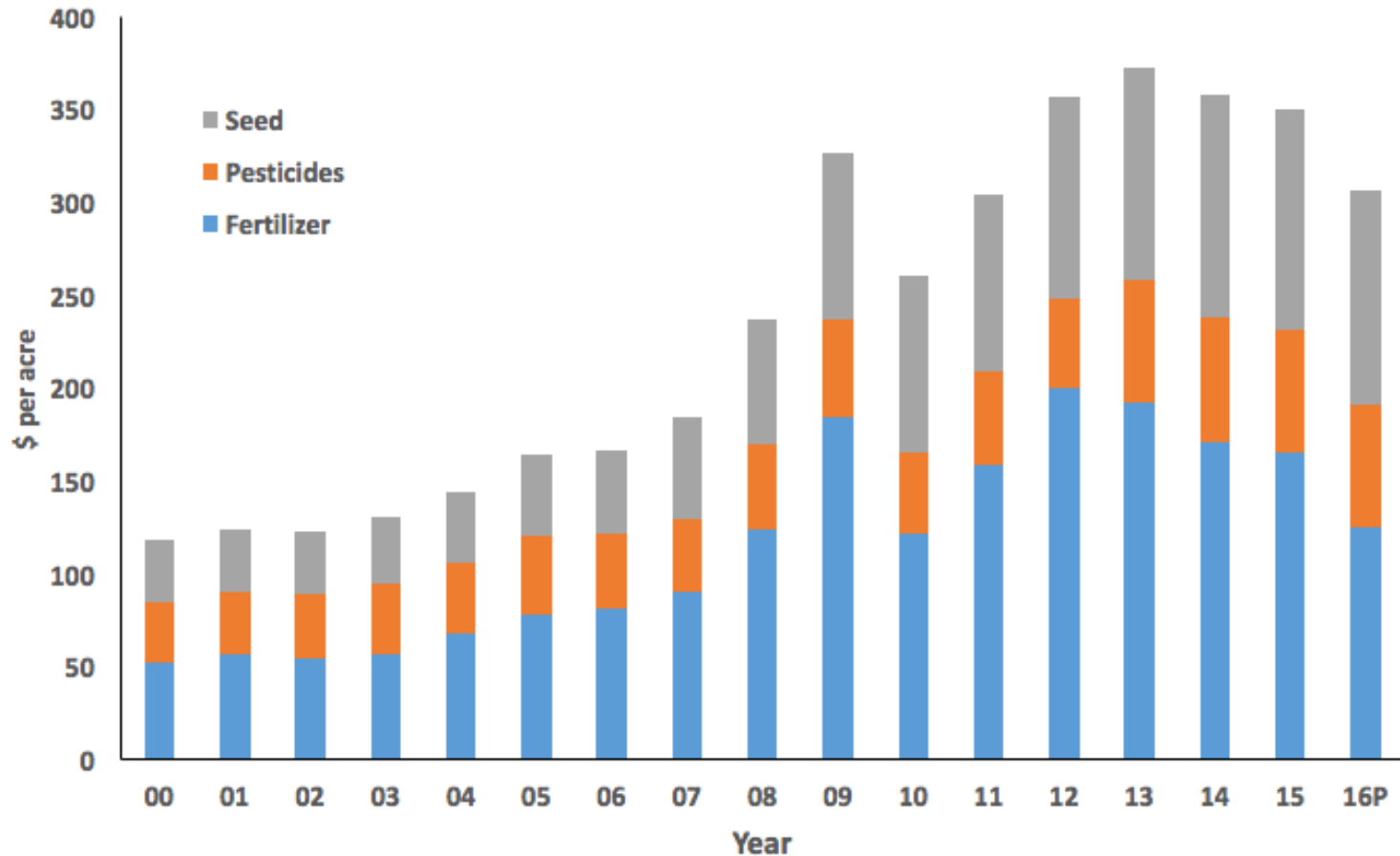


# Gross Revenue, Soybeans, Central Illinois, High-Productivity

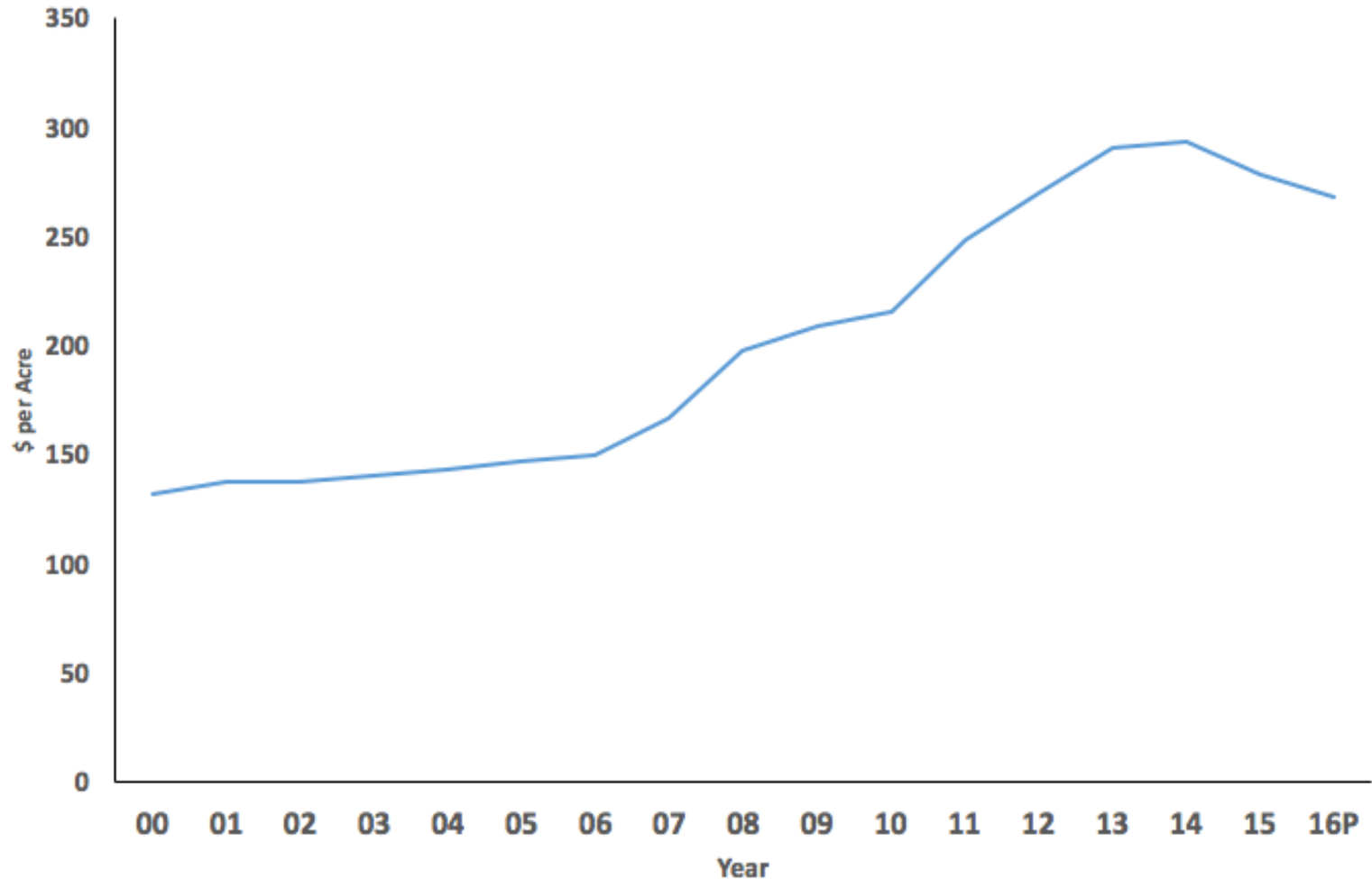
	2015	2016
Crop revenue (66 bu. x \$9.08)	\$599	
Crop revenue (73 bu. x \$9.20)		\$672
ARC	45	20
Crop insurance	<u>7</u>	<u>4</u>
Gross revenue	\$651	\$696

Yields and prices are higher in 2016

# Direct Costs, Corn, \$ per Acre

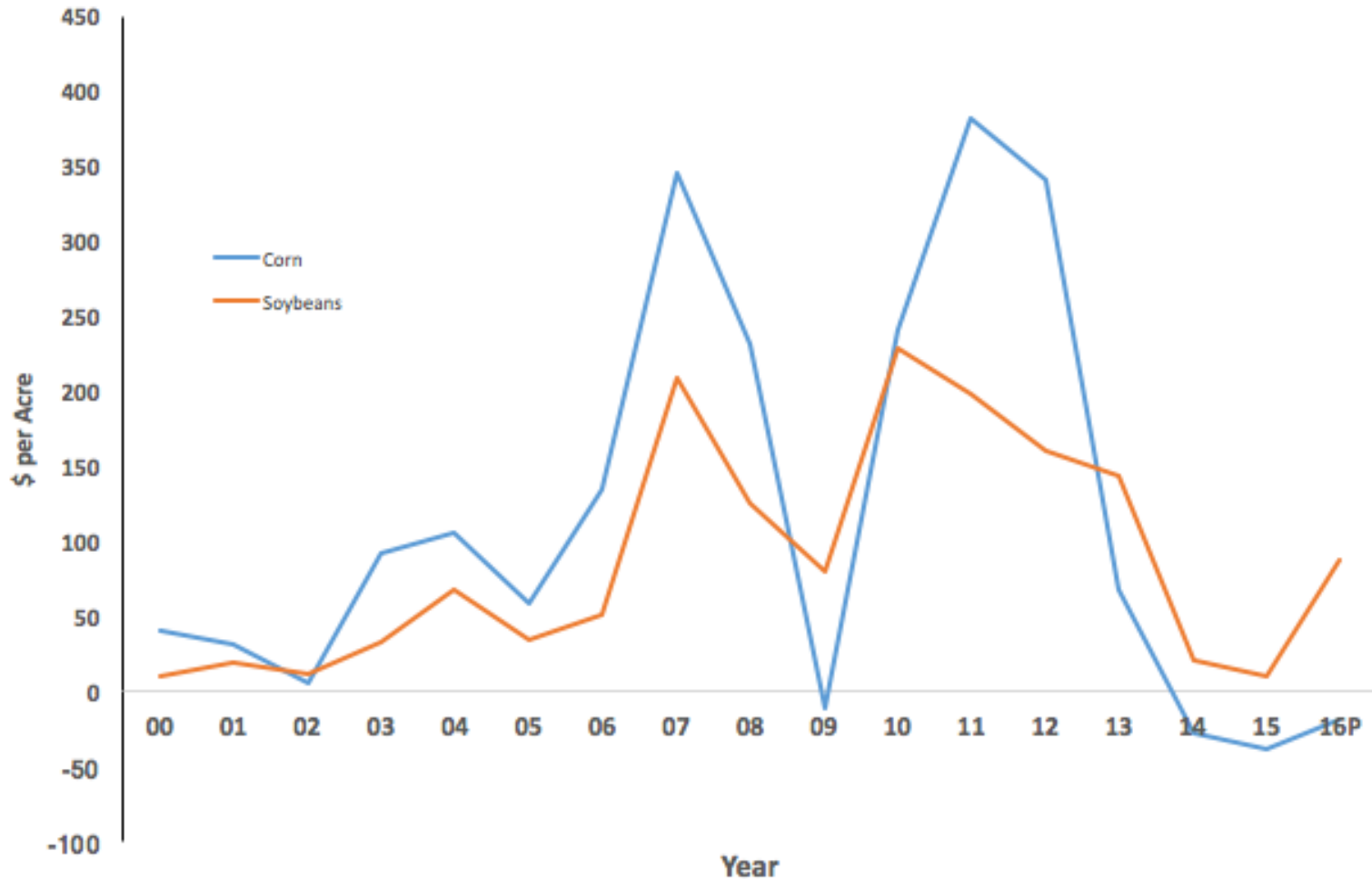


# Cash Rents, Central Illinois, \$ per Acre

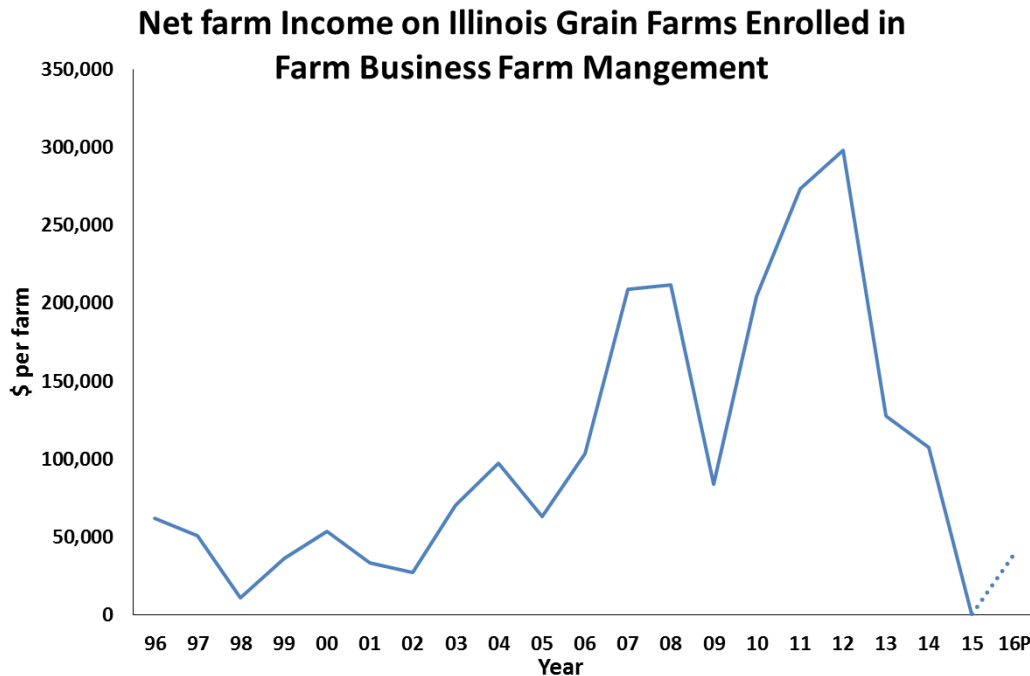




# Farmer Return, Cash Rent Farmland Central Illinois



# Projected Net Farm Income, Illinois Grain Farms



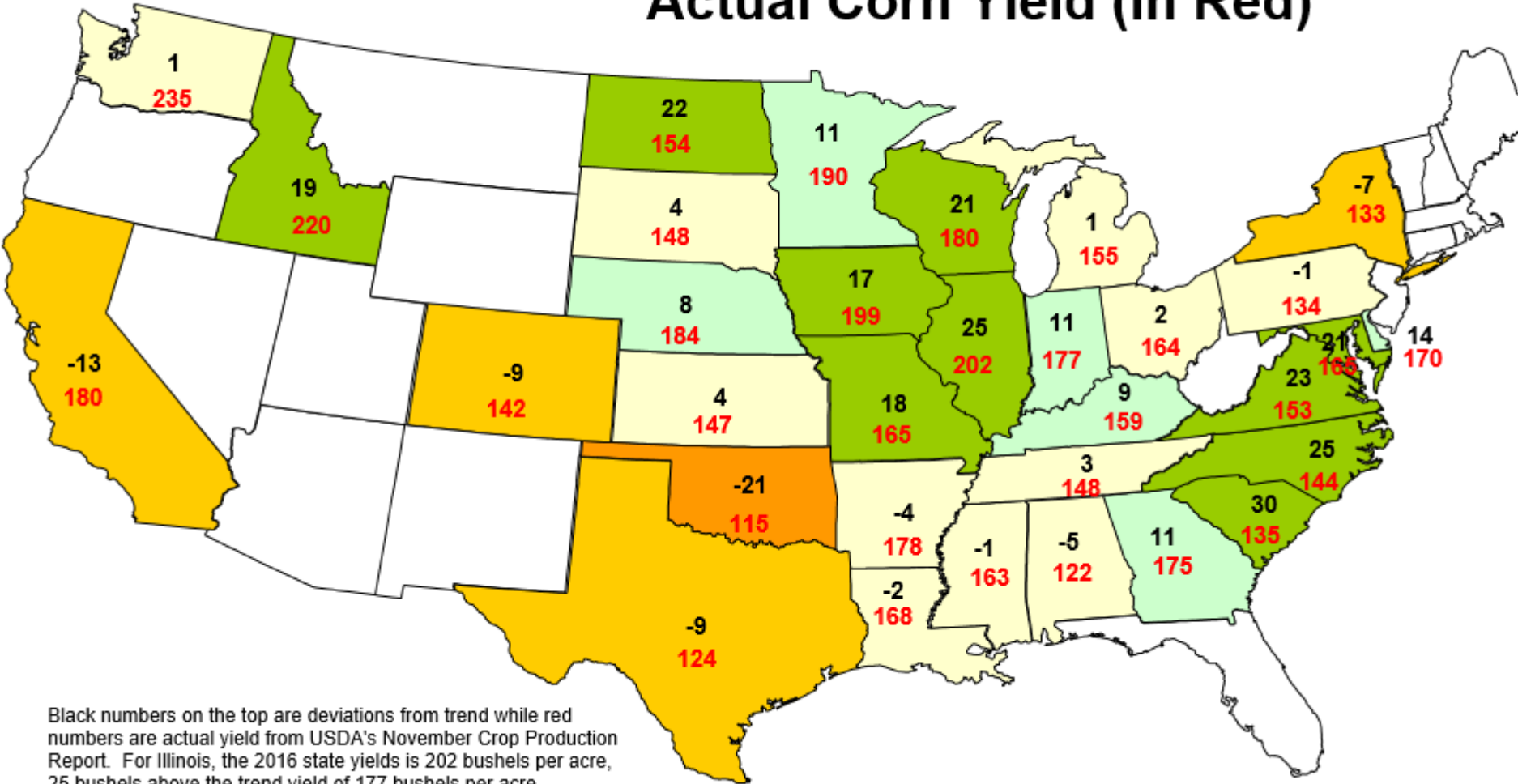
## Central Illinois Farms

2014: \$120,000

2015: \$20,000

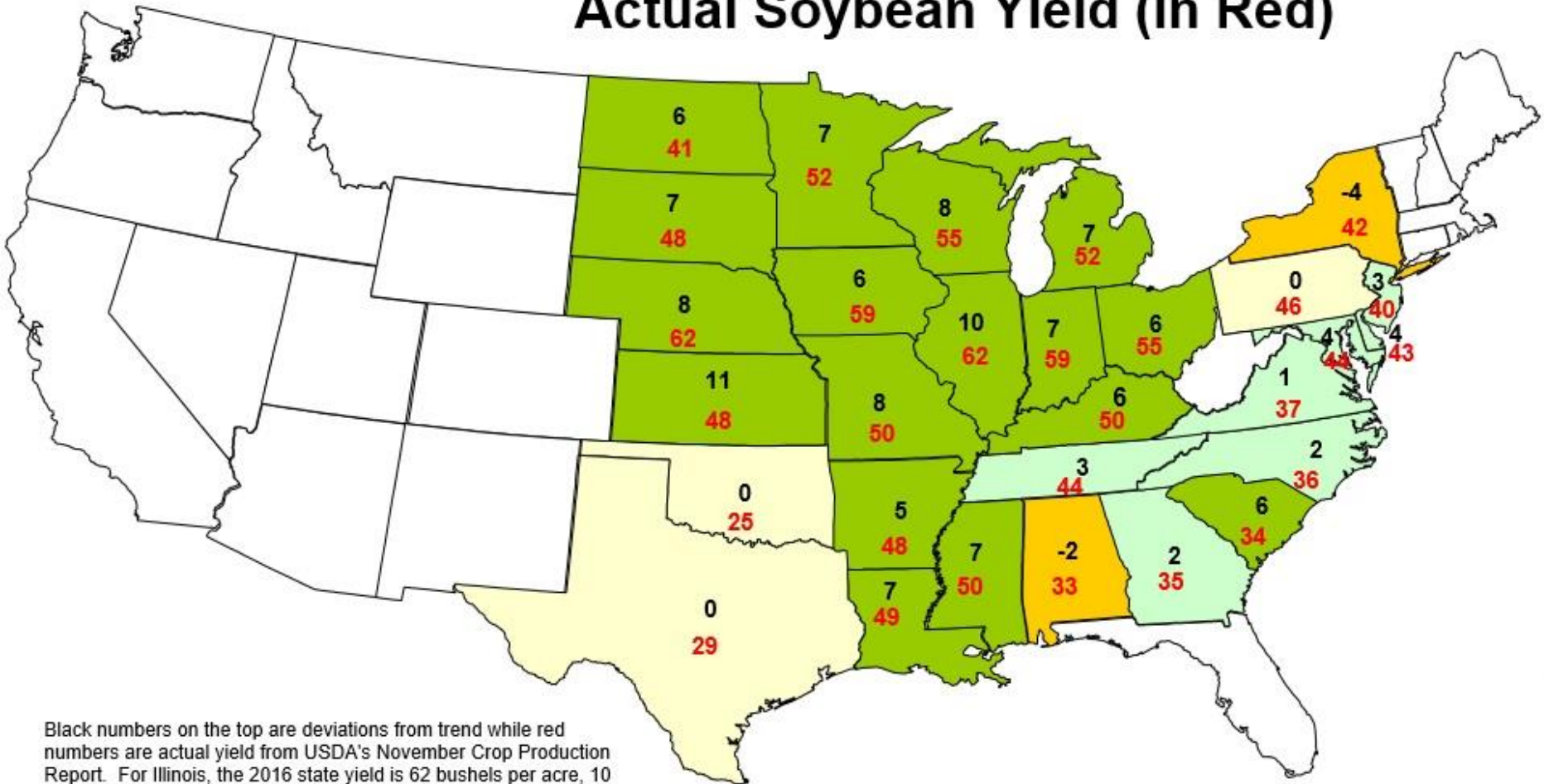
2016P: \$50,000

# 2016 Corn Yields, Deviations from Trend (in Black) Actual Corn Yield (in Red)



Black numbers on the top are deviations from trend while red numbers are actual yield from USDA's November Crop Production Report. For Illinois, the 2016 state yields is 202 bushels per acre, 25 bushels above the trend yield of 177 bushels per acre

# 2016 Soybean Yields, Deviations from Trend (in Black) Actual Soybean Yield (in Red)



Black numbers on the top are deviations from trend while red numbers are actual yield from USDA's November Crop Production Report. For Illinois, the 2016 state yield is 62 bushels per acre, 10 bushels above the 2016 trend yield of 52 bushels per acre.

# 2016 Incomes



- **Most farms will have higher incomes in 2016 than in 2015, but not at the 2006-2013 levels**
- **Higher incomes because:**
  - **High yields, particularly soybeans**
  - **Soybean profitability (High yields, relatively high prices)**
  - **ARC payments**
  - **Declining costs**

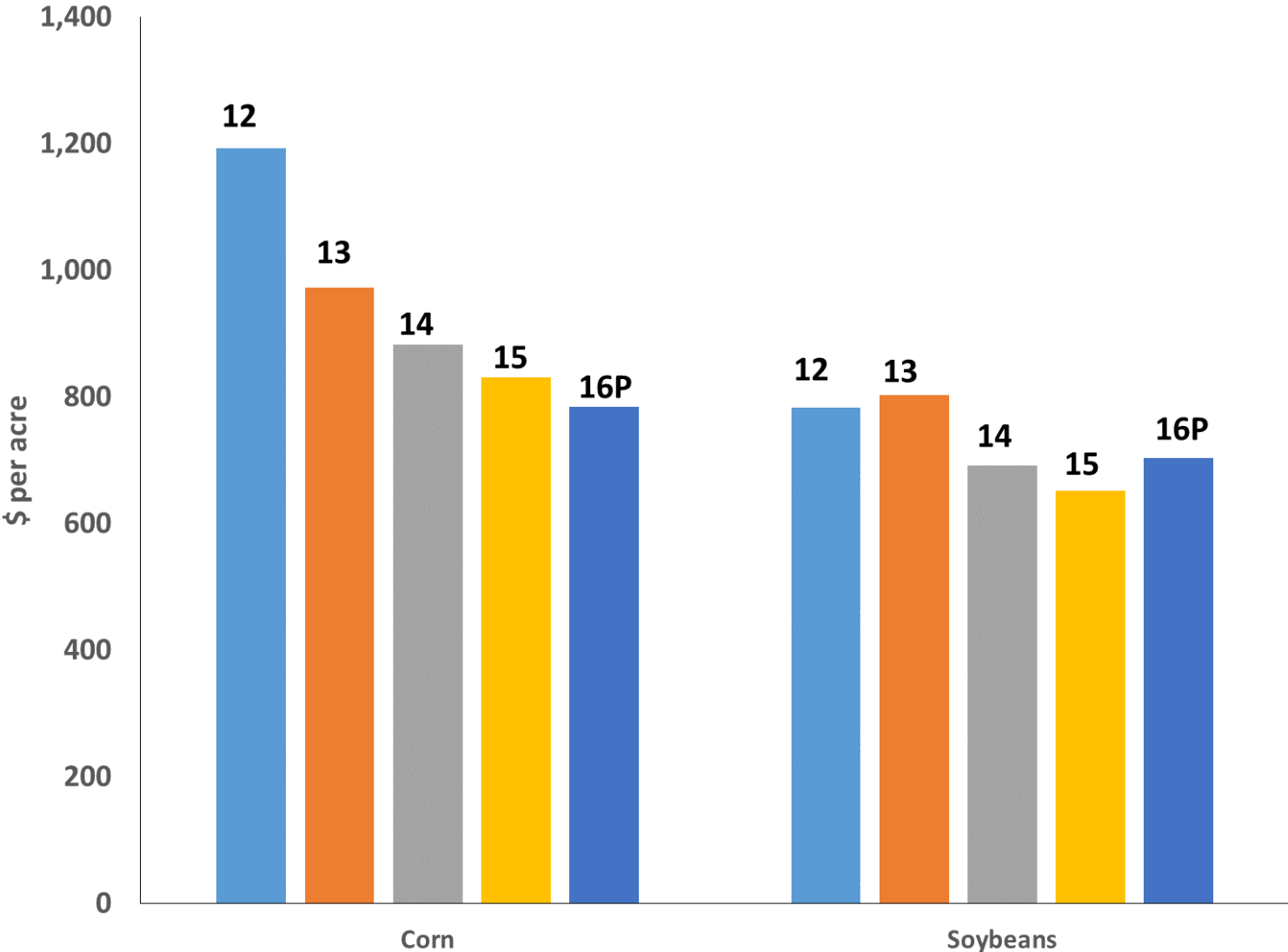
# 2017 Farm Incomes



**Incomes at very low levels from \$3.60 corn and \$8.75 soybeans. Incomes would be worse than 2015, negative**

**Poor income scenario: Below average yields here, high yields in western corn belt, low prices**

# Gross Revenue Per Acre: Corn and Soybeans, Central Illinois, High-Productivity Farmland



# Prices to have Same Gross Revenue in 2017 as in 2016

**The following assumes no ARC payment**

Corn	
Yield	Price
170	\$4.77
185	\$4.38
200	\$4.05
215	\$3.77
235	\$3.52

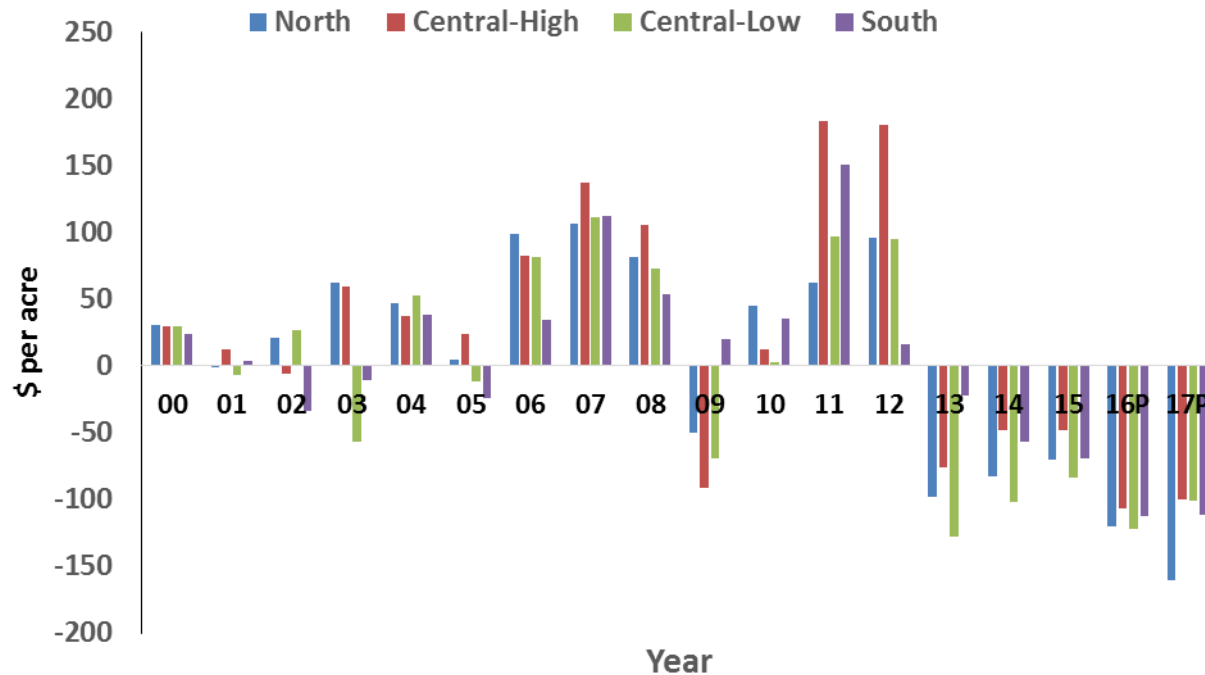
Soybeans	
Yield	Price
50	\$14.05
55	\$12.78
60	\$11.71
65	\$10.81
70	\$10.04

**The above are for central Illinois, high-productivity farmland**



# Soybeans in 2017?

## Corn Minus Soybean Returns, Region of Illinois



# More Soybeans?

Table 1. Corn and Soybean Budgets given 2017 Fall Delivery Grain Bids, Central Illinois, High-Productivity Budgets

	Corn- after- Soybeans	Soybeans- after- Corn
Yield per acre	203	61
Price per bu	\$3.50	\$9.70
Crop revenue	\$711	\$592
ARC/PLC	0	0
Crop insurance proceeds	0	0
<b>Gross revenue</b>	<b>\$711</b>	<b>\$592</b>
<b>Total non-land costs</b>	<b>\$521</b>	<b>\$319</b>
<b>Operator and land return</b>	<b>\$190</b>	<b>\$273</b>

- **Concern: Soybean price decline**
- **Consider switching acres to soybeans and pricing additional production**
- **Consider pricing soybeans now**

# Financial Trends of FBFM Grain Farms

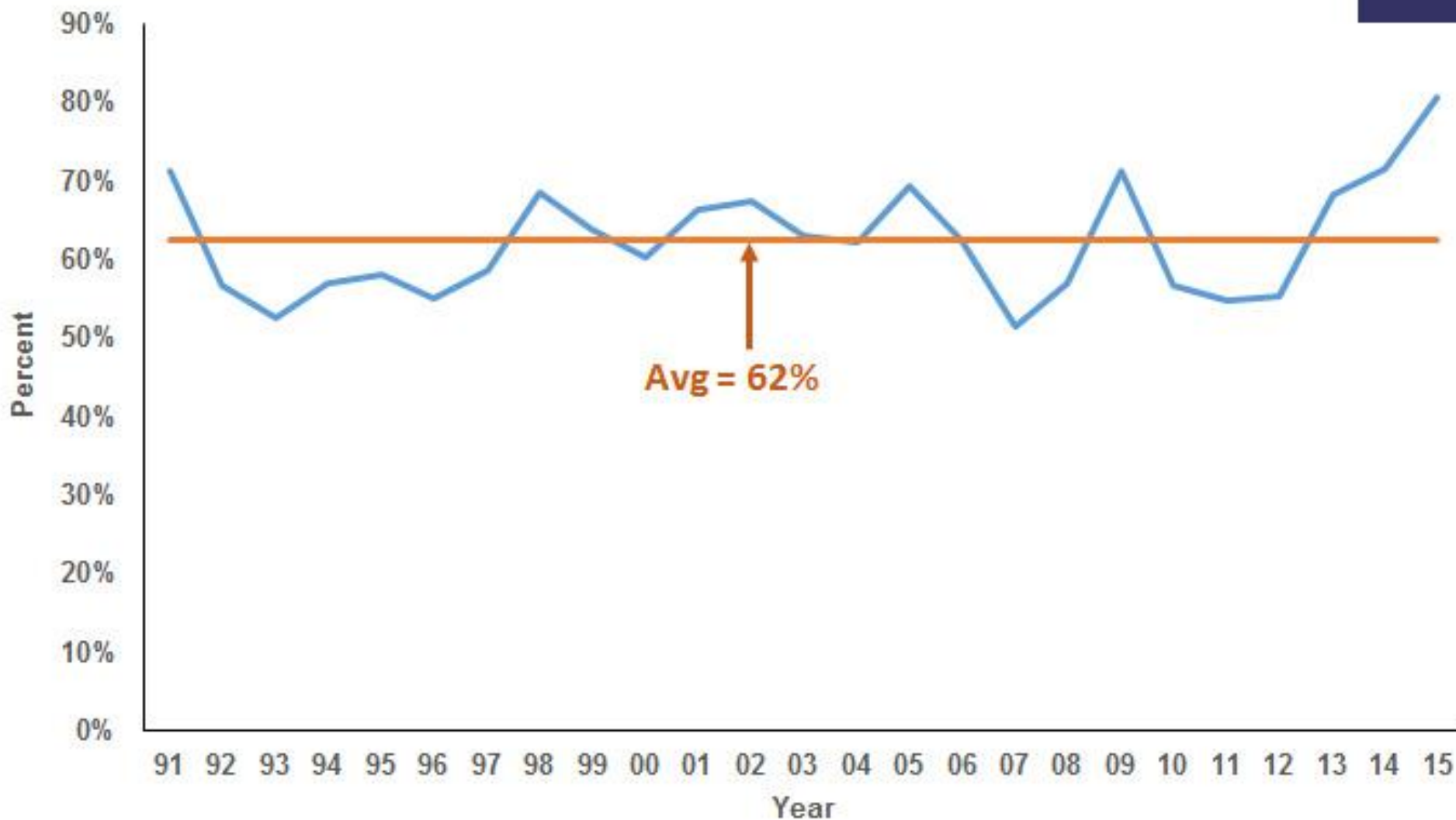
	Year						
	2009	2010	2011	2012	2013	2014	2015
<b>Efficiency</b>							
Operating expense ratio	71%	57%	55%	55%	69%	72%	81%
Depreciation expense ratio	7%	7%	7%	7%	10%	11%	13%
Interest expense ratio	3%	3%	2%	2%	2%	2%	3%
<b>Profitability</b>							
Net income from operations	18%	33%	36%	35%	18%	14%	3%
Return on farm assets	3.4%	8.4%	9.6%	3.8%	2.6%	1.6%	-0.6%
<b>Repayment Capacity</b>							
Term debt and capital lease ratio	1.64	3.67	4.67	4.57	1.57	1.38	0.44
<b>Liquidity</b>							
Current ratio	2.31	2.56	2.73	3.08	2.59	2.32	2.05
<b>Solvency</b>							
Debt-to-asset ratio	0.22	0.21	0.20	0.18	0.18	0.18	0.20

Source: Illinois Farm Business Management as reported in Financial

Benchmarks Tool on farmdoc,

See farmdocDaily, October 4, 2016

# Figure 1. Operating Expense Ratio



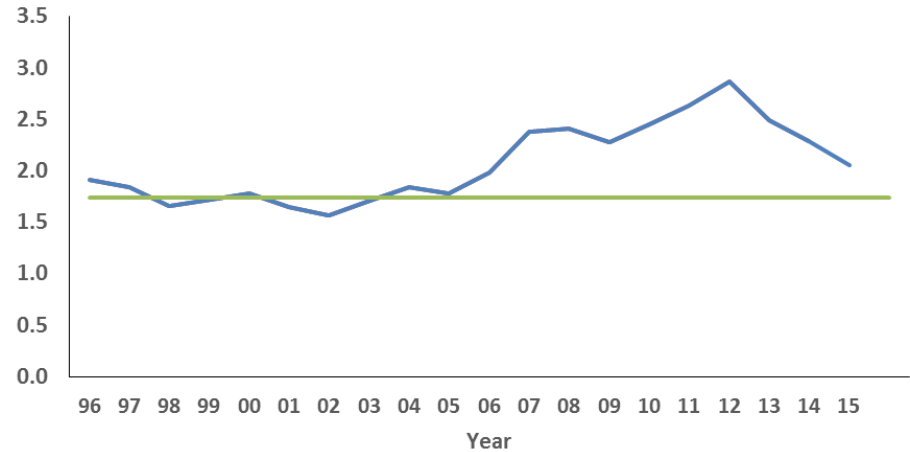
# Working Capital

- **Current assets relative to current liabilities**
- **First line of defense for cash shortfalls**
- **Measures:**

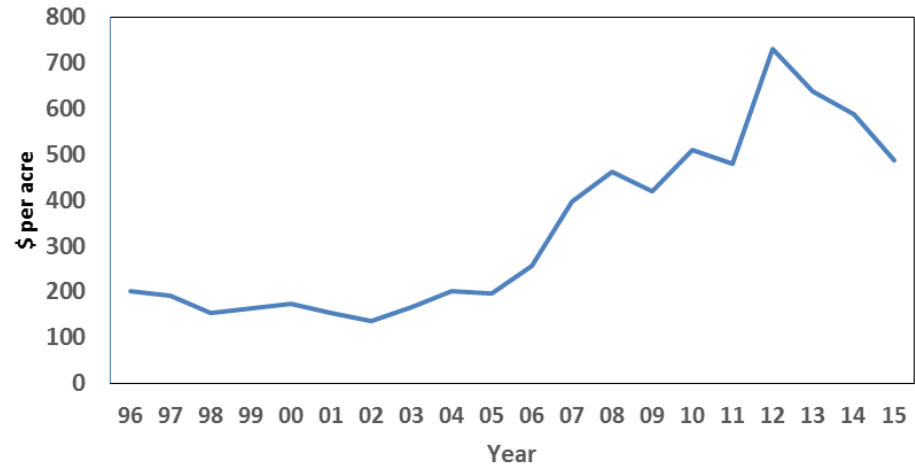
$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

$$\text{working capital} = \text{current assets} - \text{current liabilities}$$

Current Ratios on Illinois Farms Enrolled in Illinois FBFM.



Working Capital Per Acre

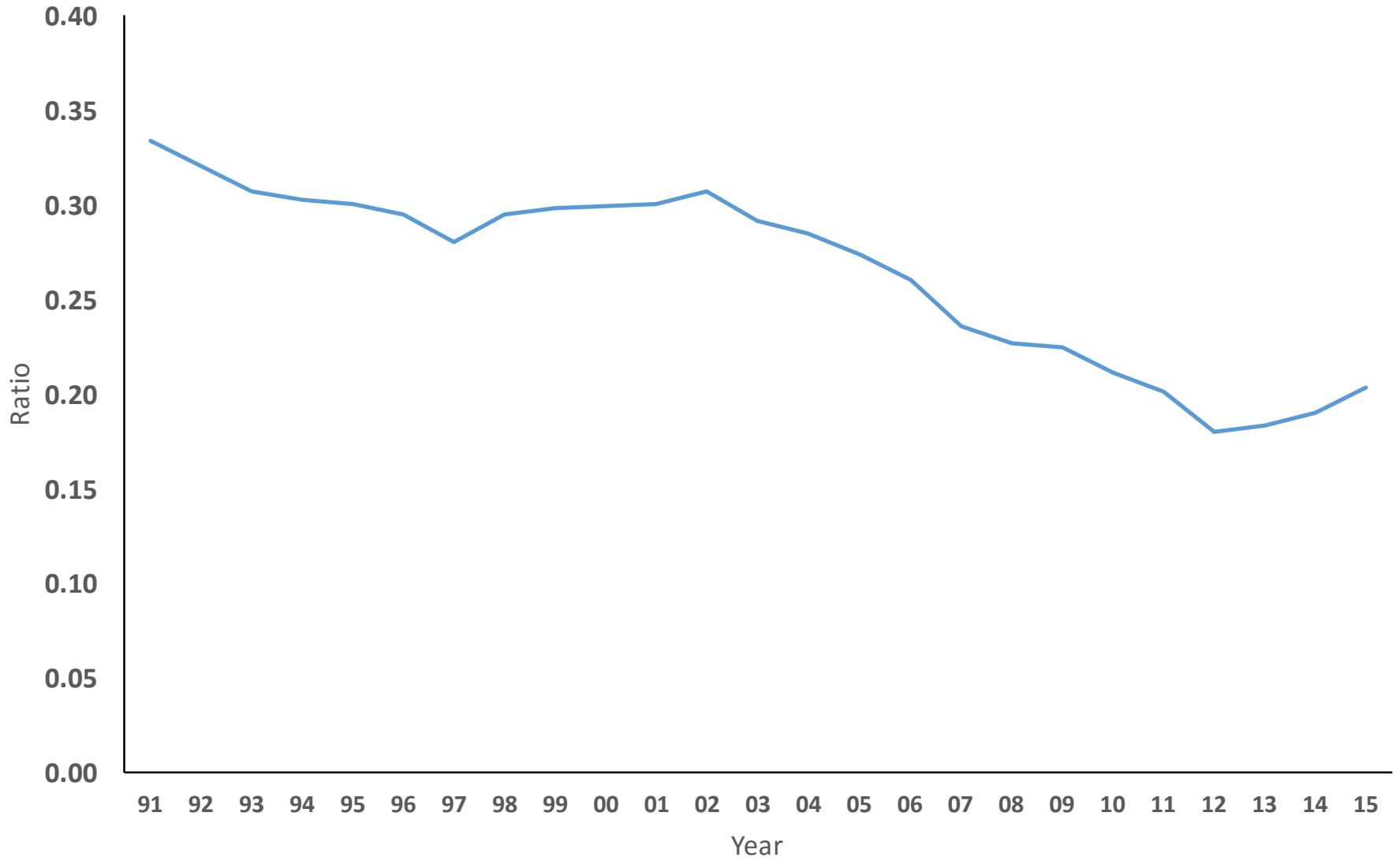


# Term Debt and Capital Lease Ratio

Year	Low	Mid	High
2007	10.67	4.67	2.76
2008	10.15	4.17	2.37
2009	4.56	1.64	.30
2010	8.82	3.67	1.78
2011	10.84	4.67	2.41
2012	11.31	4.57	2.33
2013	4.48	1.57	.39
2014	3.86	1.38	.28
<b>2015</b>	<b>1.90</b>	<b>.44</b>	<b>-.58</b>

Computation: (Net farm income from operations plus non-farm income plus depreciation plus interest on term debt plus interest on capital leases less income taxes less family living withdrawals) divided by annual scheduled principal and interest payments on term debt and capital leases

Figure 3.7 Debt-to-Asset Ratio.



# Suggestions for 2017

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1. **Assess your working capital and determine how to “use” it**
2. **Refinance if needed, given positive projected cash flow can be obtained**
3. **Lock in low interest rates**
  
4. **Consider switching to more soybeans**
5. **Evaluate N, P and K**
6. **What about seed (can we lower seed costs?)**
  
7. **Switch to less tillage, particularly if coming to the point of needing to replace tractors or tillage equipment**
8. **Don't buy machinery**
  
9. **Evaluate your high cash rent farms**
10. **For cash rents that are “too” high, think about a variable cash rent or terminating lease**