

# **Profitability of Wheat, Soybeans, and Double Crop Soybeans in Southern Illinois**

---

**Gary Schnitkey**  
**University of Illinois**

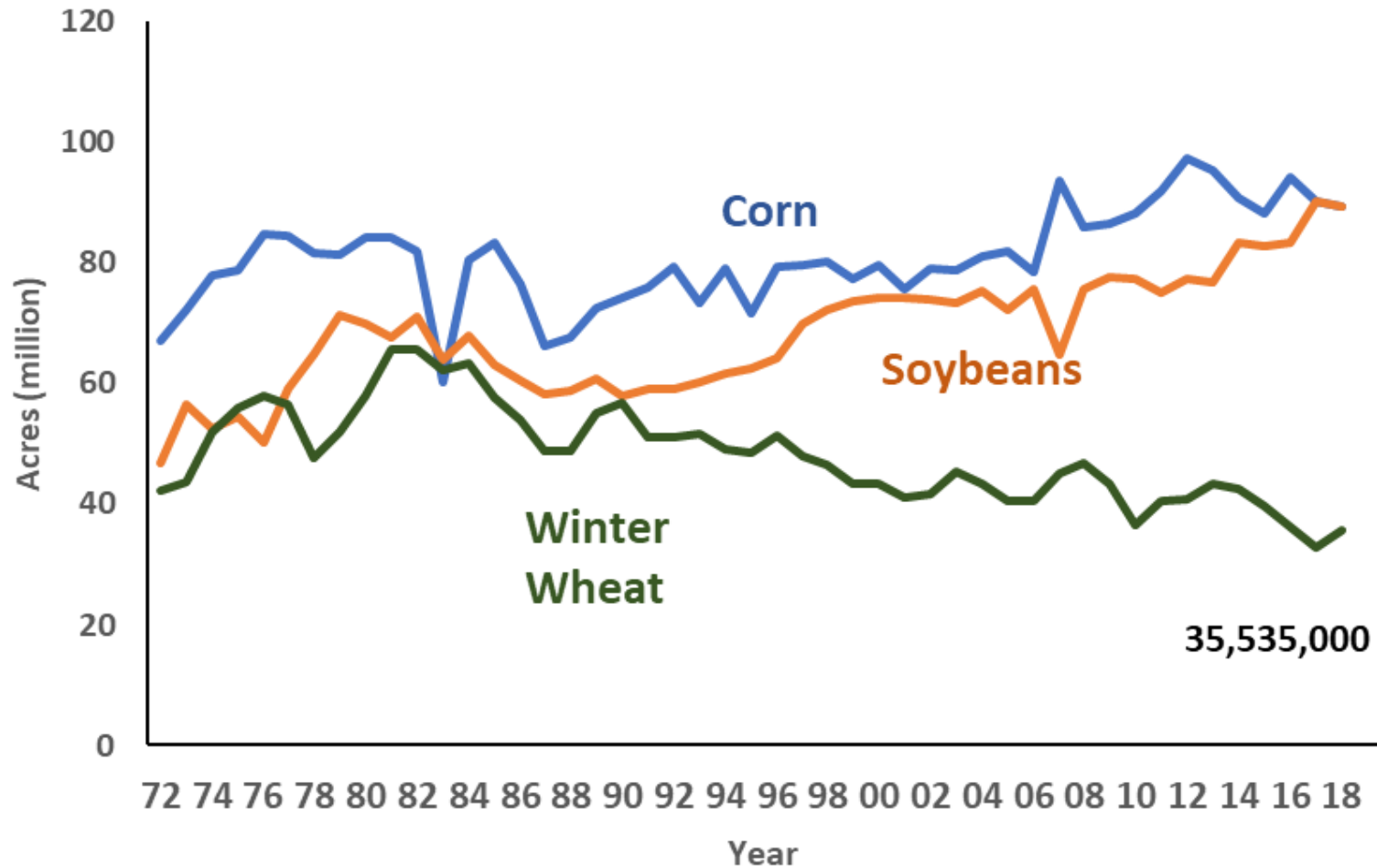
# Topics

---

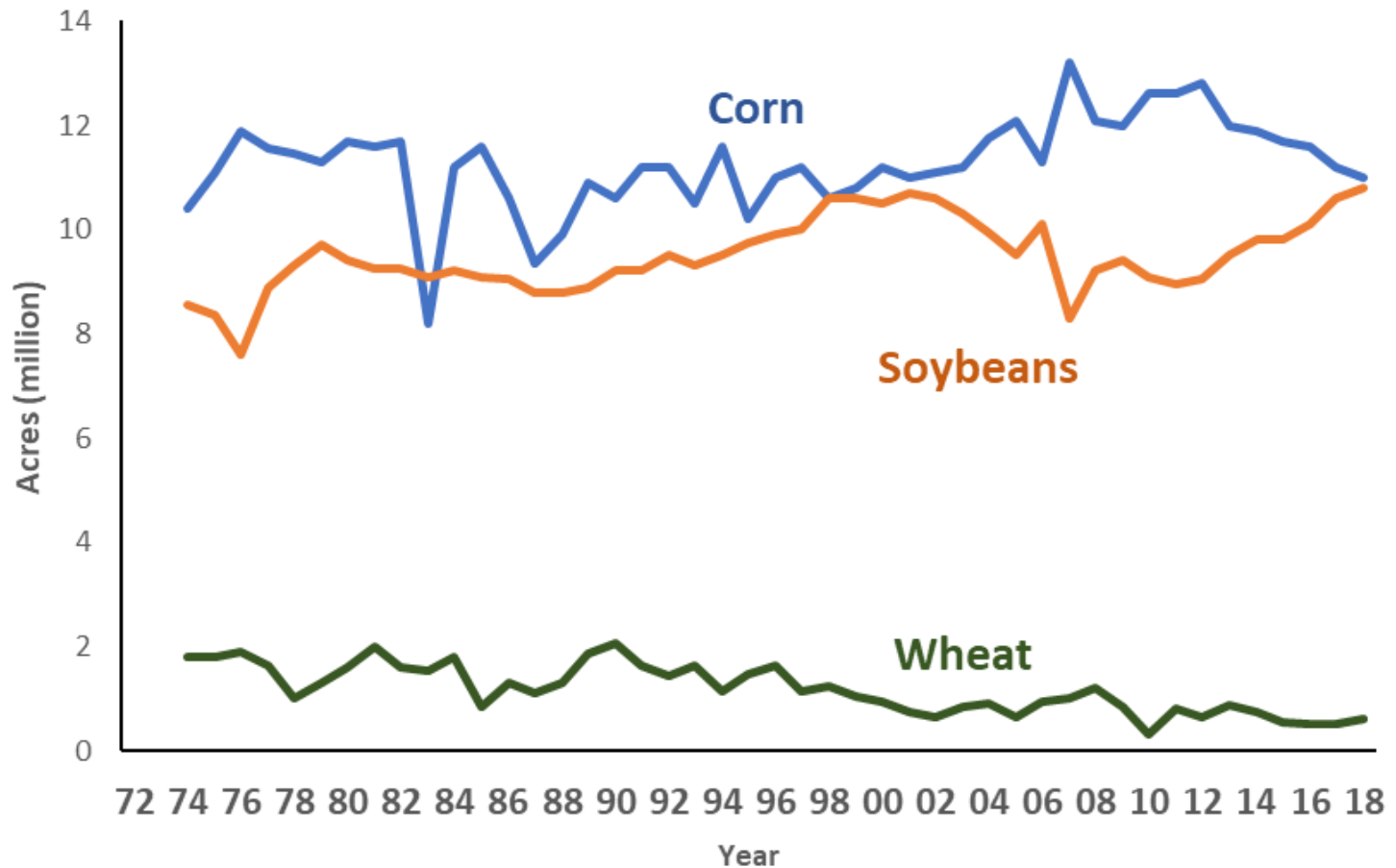
- **Acres**
- **Budgets and historical costs**
- **Profitability**



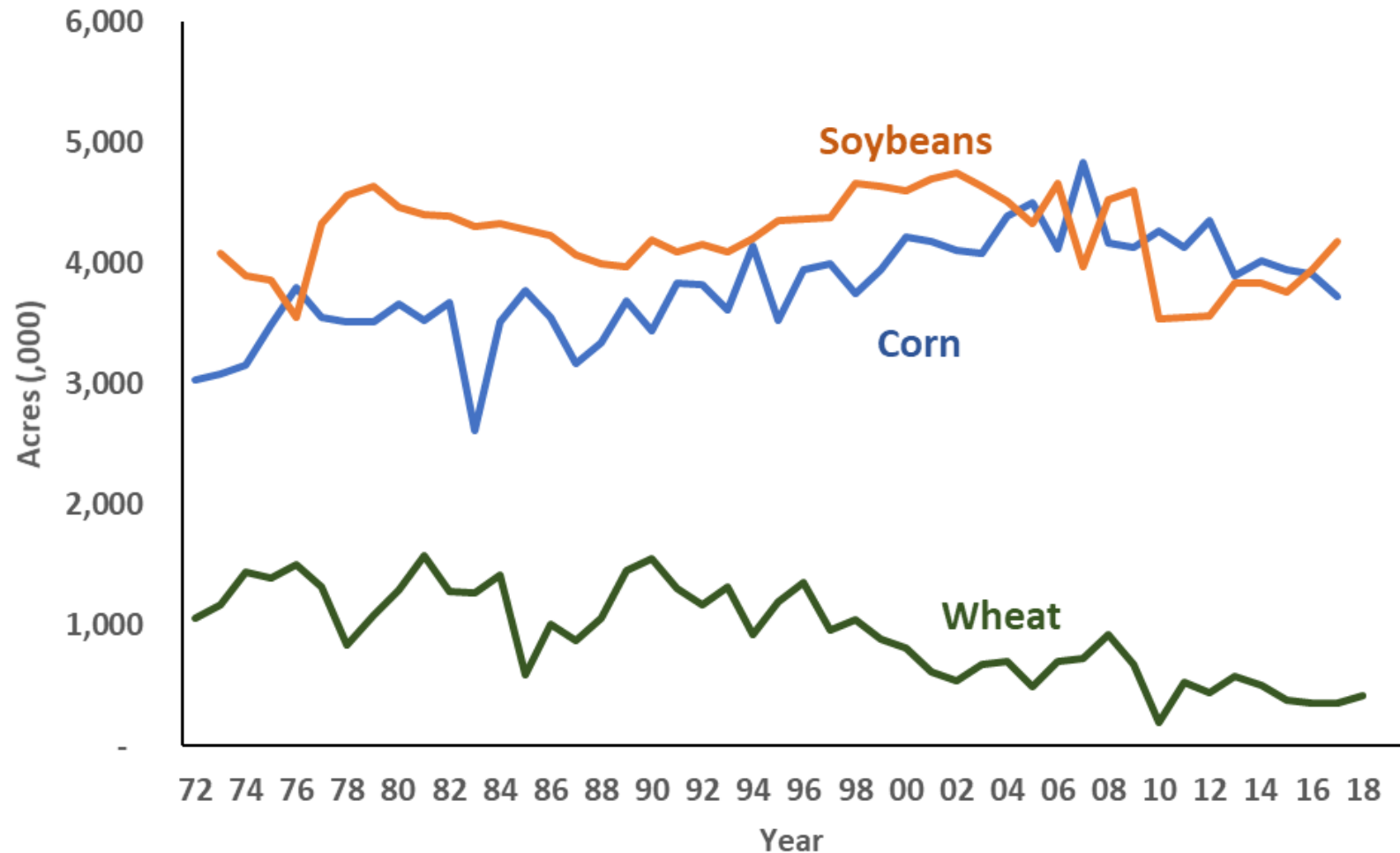
# U.S. Acres, 1972 to 2018



# Illinois Acres, 1972 to 2018



# Acres, Southern Four CRDs, Illinois



# Crop Comparisons on farmdoc

Revenue and Costs for  
Illinois Grain Crops,  
Actual for 2012 through 2017, Projected 2018 and 2019

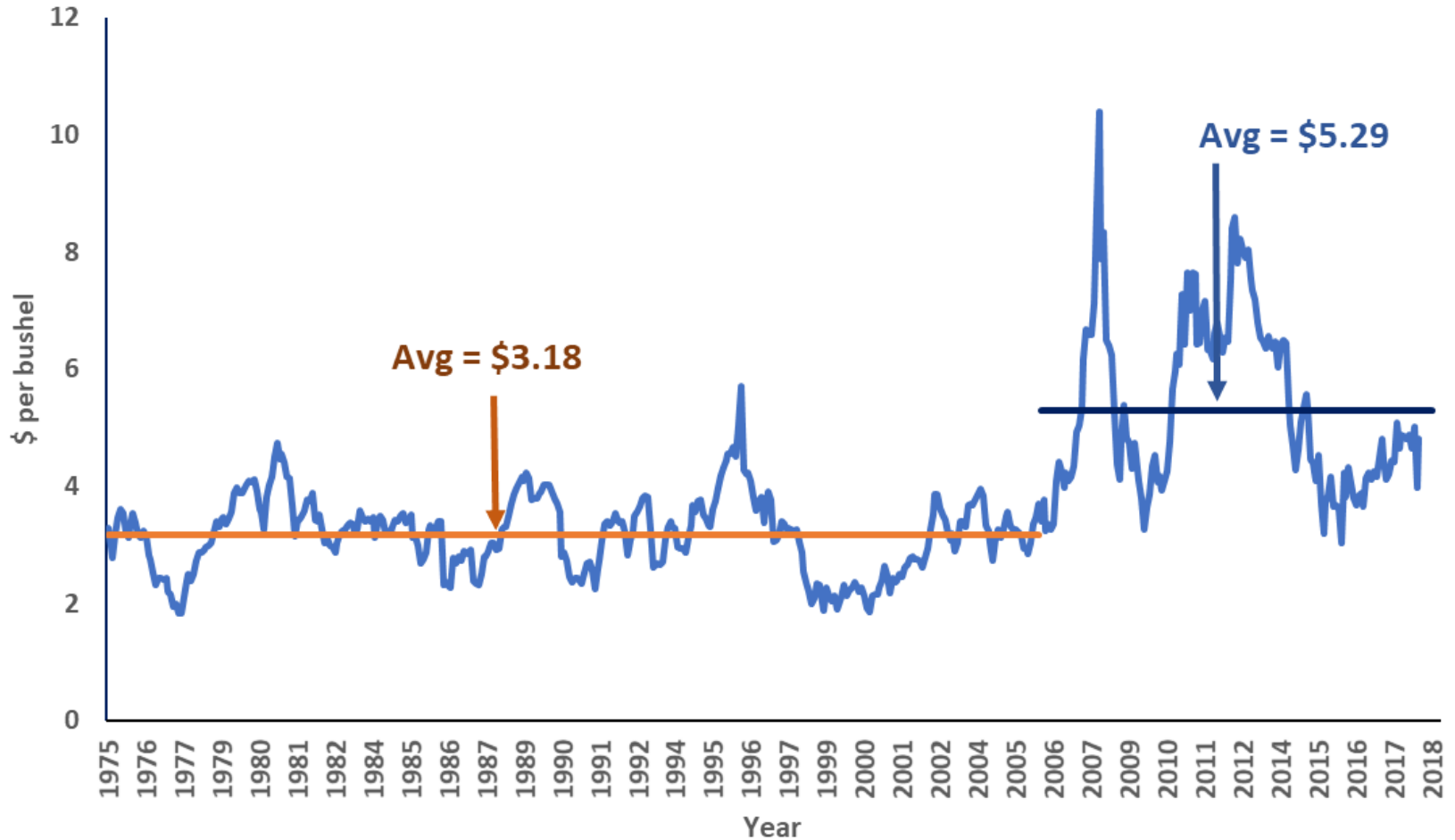


## Management section of farmdoc

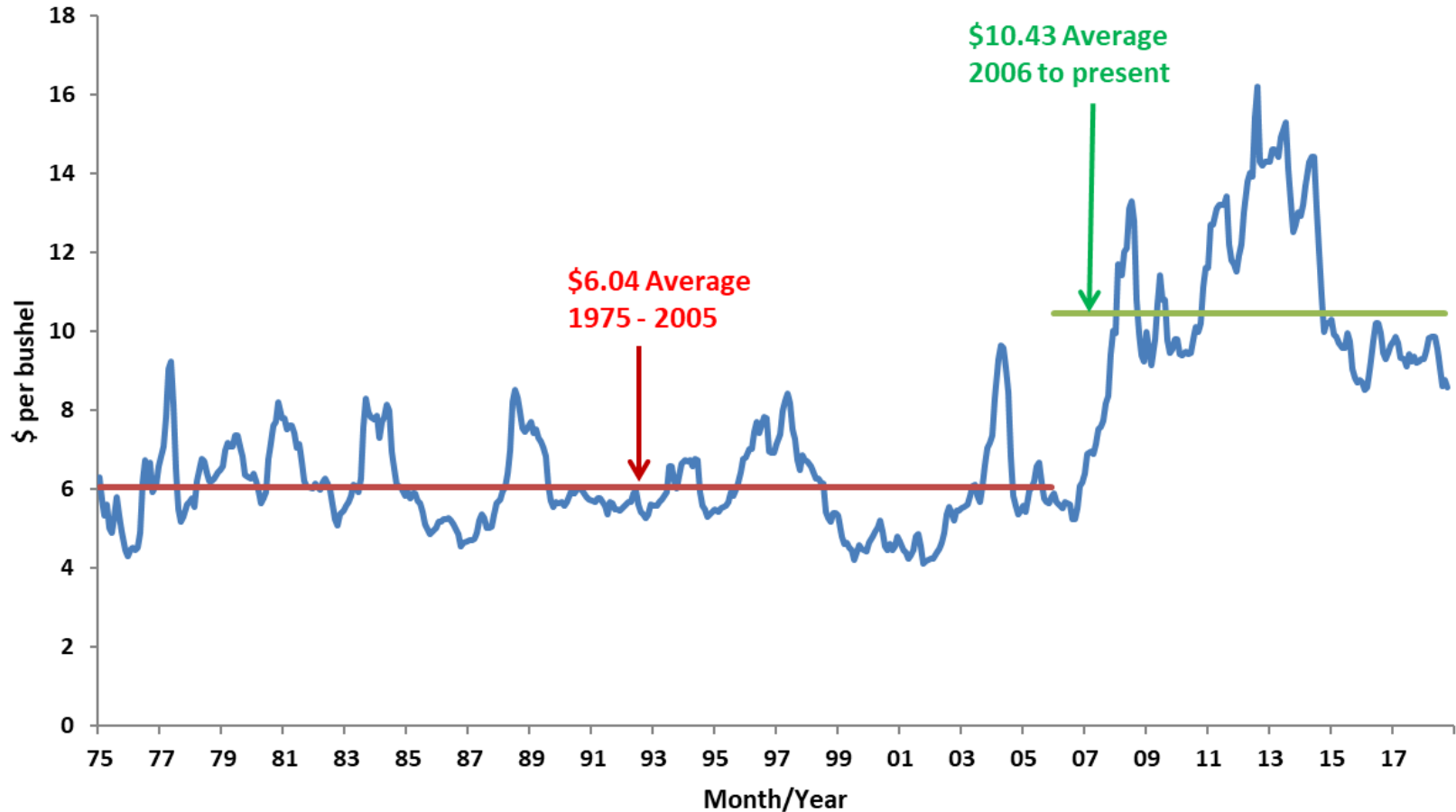
CROP BUDGETS,  
ILLINOIS, 2019



# Wheat Prices, Illinois, 1975 -2018



# Soybean Prices, National, 1975 to present





# Corn Prices, National, 1975 - 2017

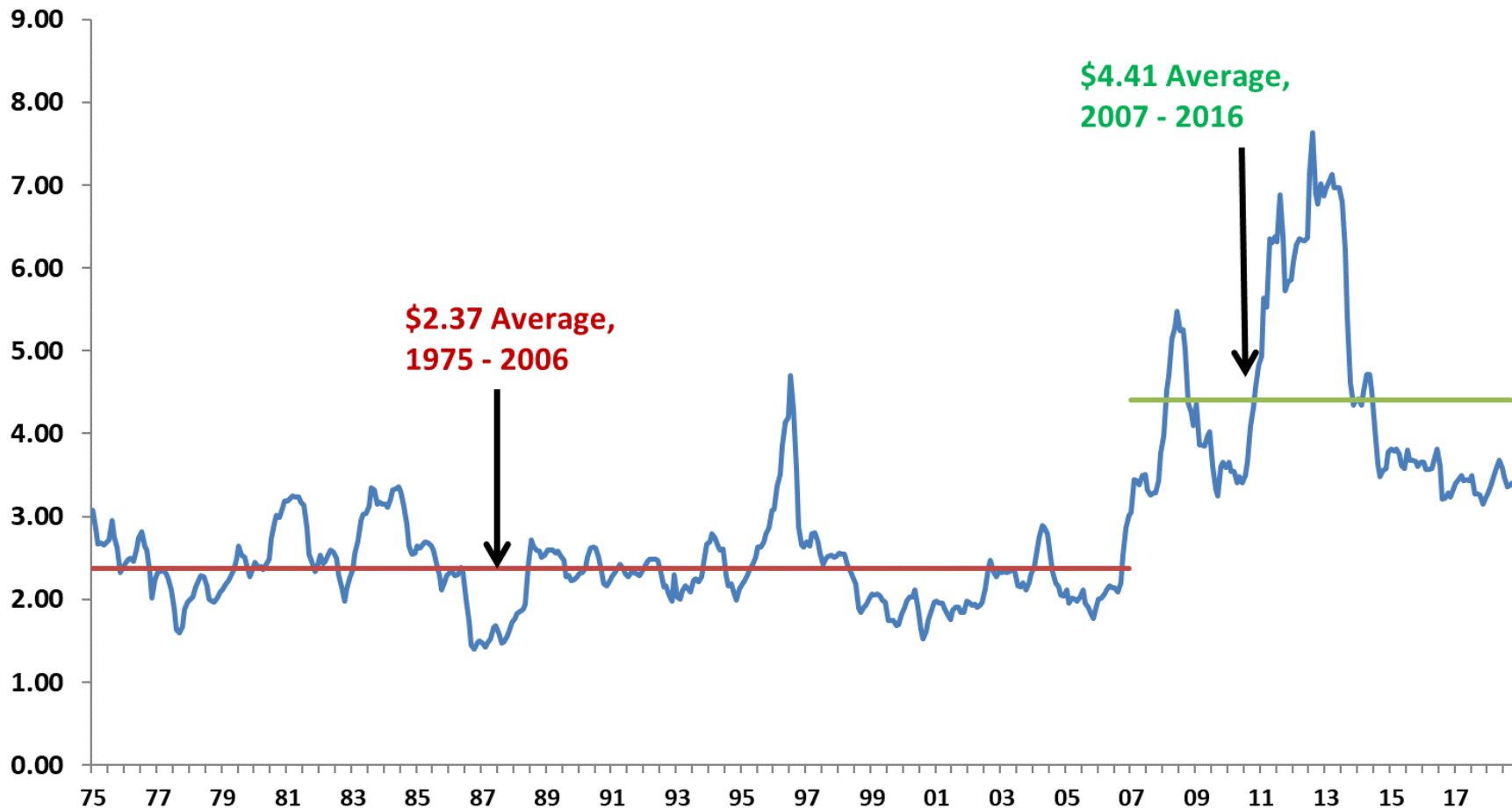


Figure 1. Illinois Corn Yields, 1970 to 2018P

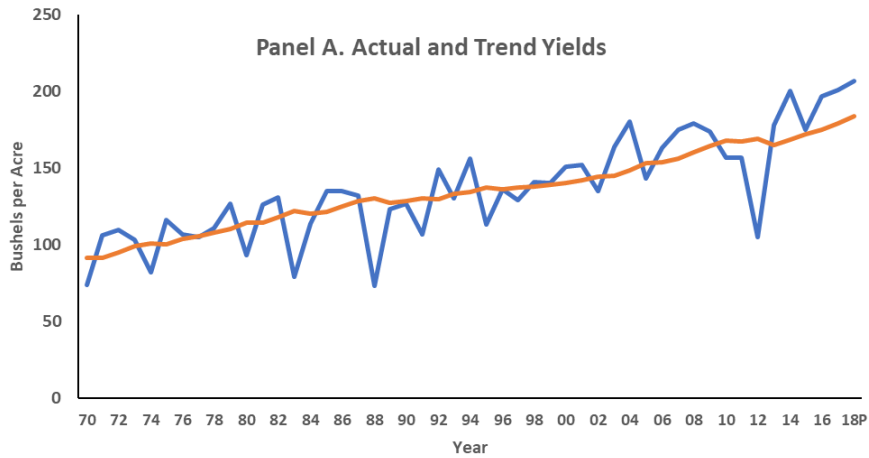
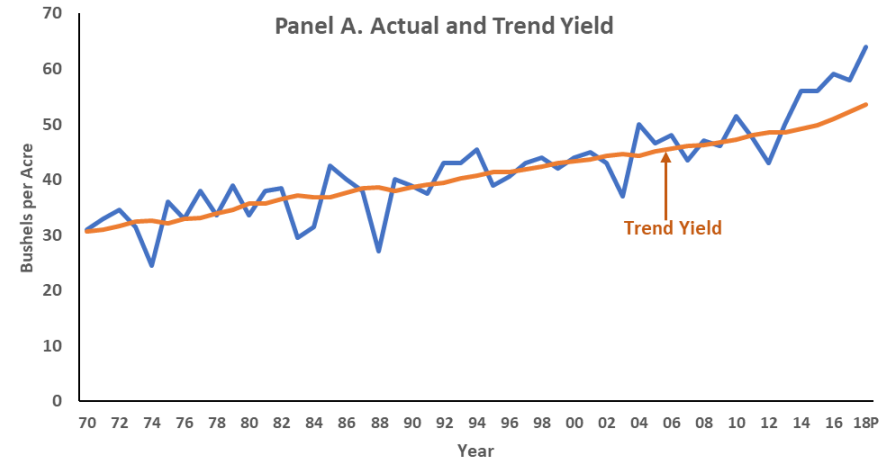
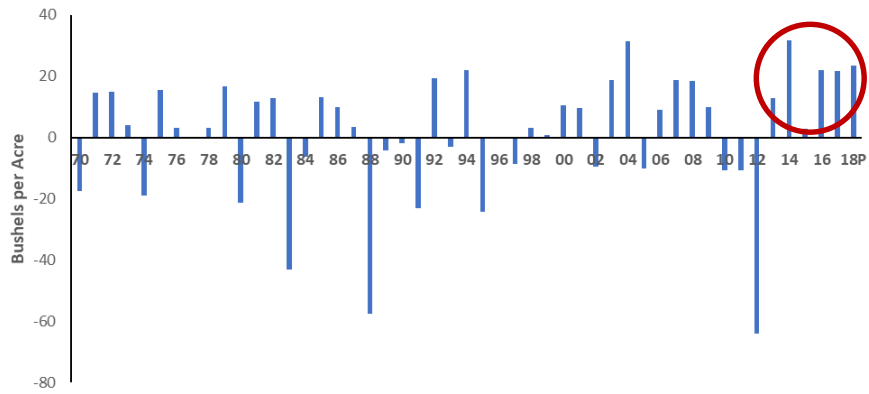


Figure 2. Illinois Soybean Yields, 1970 to 2018P



Panel A. Yield Deviations from Trend



Panel B. Yield Deviations From Trend

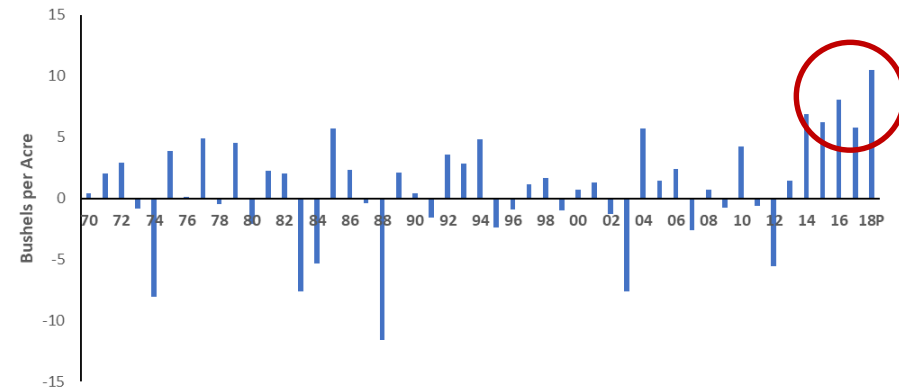
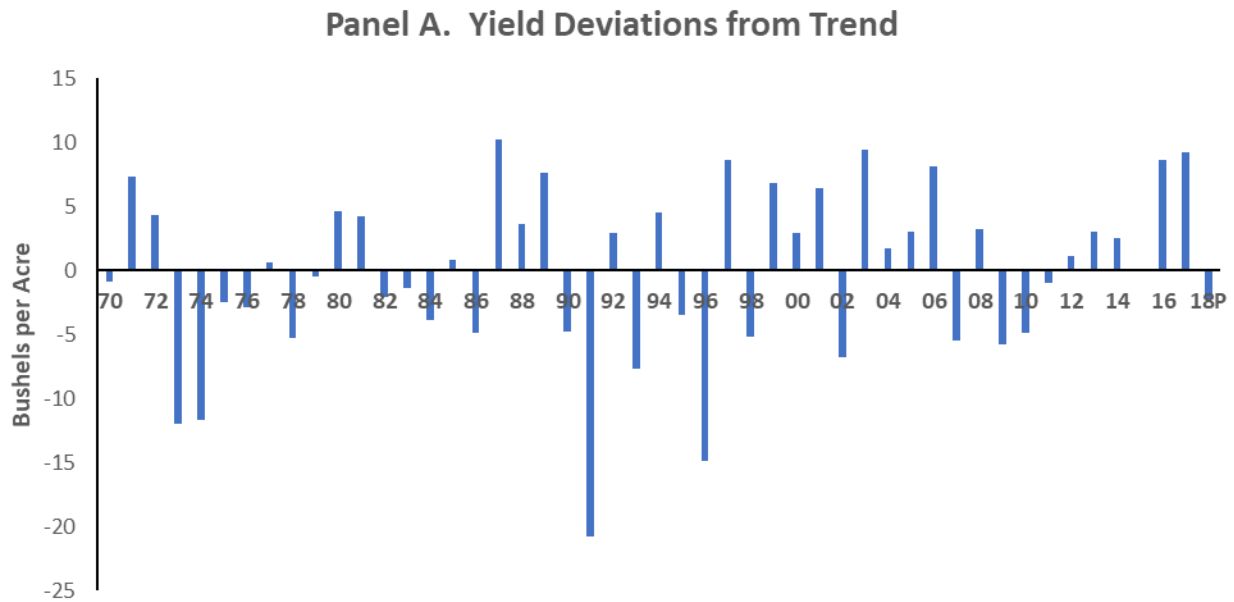
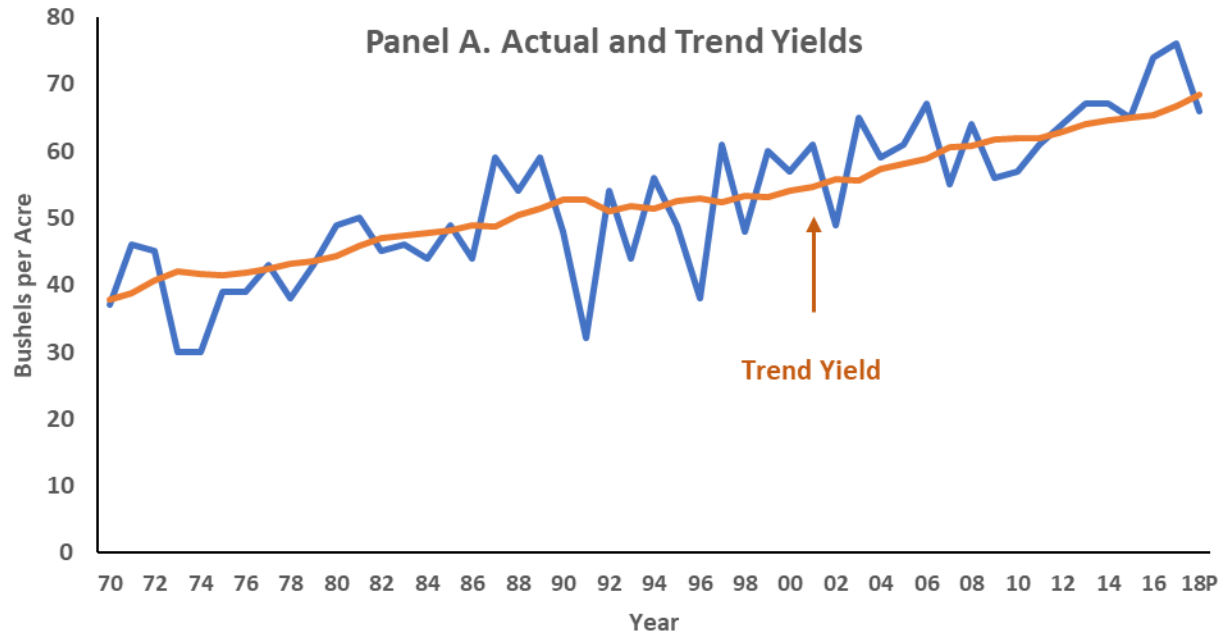
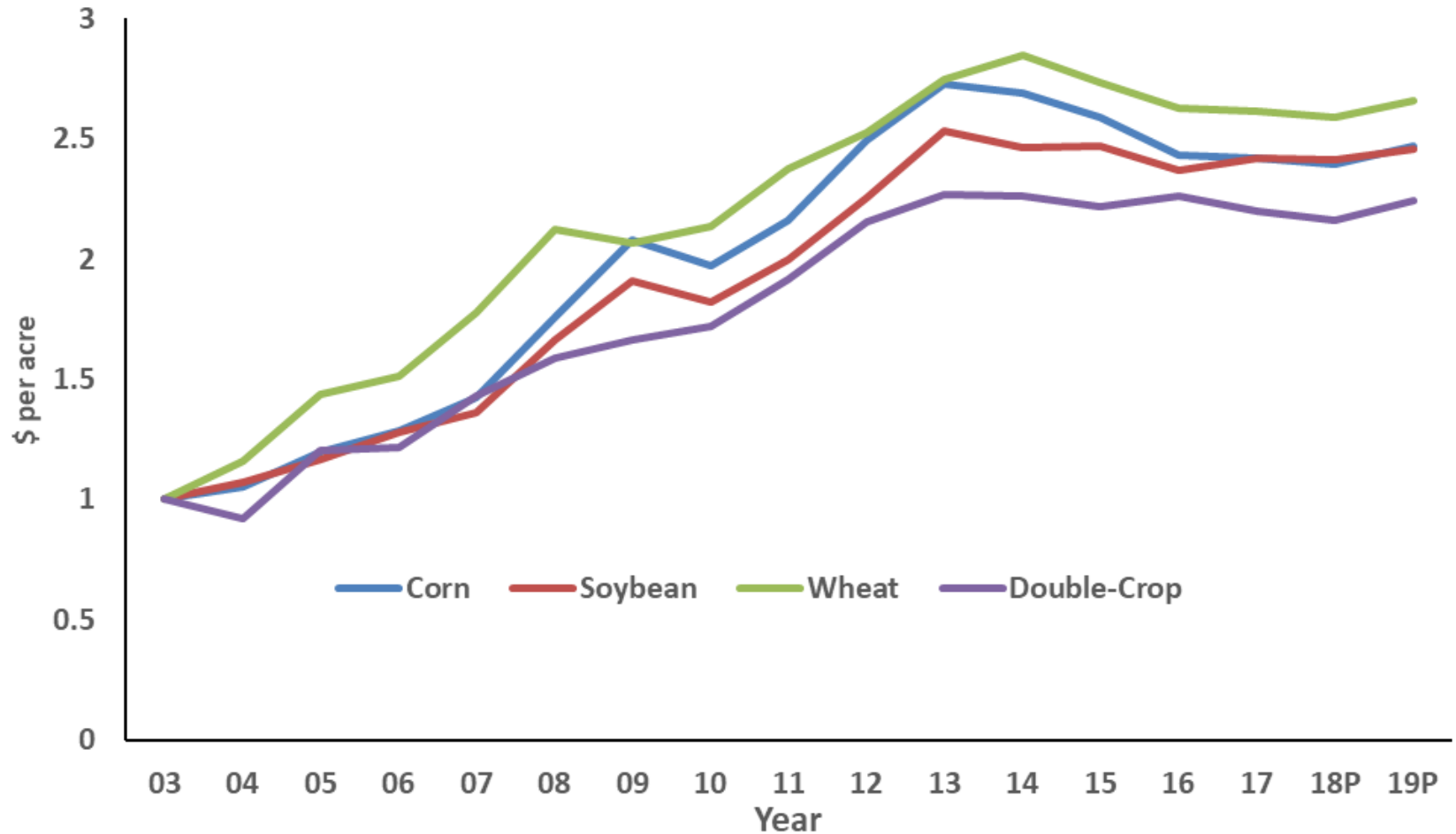


Figure 1. Illinois Wheat Yields, 1970 to 2018P



# Change in Costs by Crop



# Wheat, Southern Illinois

	Year							
	2012	2013	2014	2015	2016	2017	2018P	2019P
Yield per acre	72	76	68	66	78	83	72	78
Price per bu	\$7.13	\$6.45	\$5.50	\$3.85	\$4.15	\$4.23	\$4.90	\$5.00
Crop revenue	\$513	\$490	\$374	\$254	\$324	\$351	\$353	\$390
ARC/PLC or ACRE	0	0	20	38	29	5	0	6
Other gov't payments	21	0	0	0	0	0	5	0
Crop insurance proceeds	0	25	10	5	4	5	0	0
<b>Gross revenue</b>	<b>\$534</b>	<b>\$515</b>	<b>\$404</b>	<b>\$297</b>	<b>\$357</b>	<b>\$361</b>	<b>\$358</b>	<b>\$396</b>
<b>Total direct costs</b>	<b>\$178</b>	<b>\$190</b>	<b>\$202</b>	<b>\$190</b>	<b>\$183</b>	<b>\$175</b>	<b>\$172</b>	<b>\$178</b>
<b>Total power costs</b>	<b>\$111</b>	<b>\$126</b>	<b>\$128</b>	<b>\$125</b>	<b>\$122</b>	<b>\$123</b>	<b>\$121</b>	<b>\$123</b>
<b>Total overhead costs</b>	<b>\$60</b>	<b>\$63</b>	<b>\$63</b>	<b>\$62</b>	<b>\$58</b>	<b>\$63</b>	<b>\$64</b>	<b>\$66</b>
<b>Total non-land costs</b>	<b>\$349</b>	<b>\$379</b>	<b>\$393</b>	<b>\$377</b>	<b>\$363</b>	<b>\$361</b>	<b>\$357</b>	<b>\$367</b>
<b>Operator and land return</b>	<b>\$185</b>	<b>\$136</b>	<b>\$11</b>	<b>-\$80</b>	<b>-\$6</b>	<b>\$0</b>	<b>\$1</b>	<b>\$29</b>



# Double-Crop, Southern Illinois

	Year							
	2012	2013	2014	2015	2016	2017	2018P	2019P
Yield per acre	17	32	44	34	51	38	45	41
Price per bu	\$14.54	\$13.43	\$10.46	\$9.11	\$9.65	\$9.85	\$8.50	\$8.50
Crop revenue	\$247	\$430	\$460	\$310	\$492	\$374	\$383	\$349
ARC/PLC or ACRE	0	0	0	0	0	0	0	0
Other gov't payments	0	0	0	0	0	0	74	0
Crop insurance proceeds	12	8	5	6	5	2	0	0
<b>Gross revenue</b>	<b>\$259</b>	<b>\$438</b>	<b>\$465</b>	<b>\$316</b>	<b>\$497</b>	<b>\$376</b>	<b>\$457</b>	<b>\$349</b>
<b>Total direct costs</b>	<b>\$116</b>	<b>\$128</b>	<b>\$123</b>	<b>\$119</b>	<b>\$124</b>	<b>\$119</b>	<b>\$116</b>	<b>\$121</b>
<b>Total power costs</b>	<b>\$90</b>	<b>\$93</b>	<b>\$97</b>	<b>\$96</b>	<b>\$96</b>	<b>\$92</b>	<b>\$90</b>	<b>\$92</b>
<b>Total overhead costs</b>	<b>\$33</b>	<b>\$31</b>	<b>\$31</b>	<b>\$31</b>	<b>\$31</b>	<b>\$33</b>	<b>\$34</b>	<b>\$36</b>
<b>Total non-land costs</b>	<b>\$239</b>	<b>\$252</b>	<b>\$251</b>	<b>\$246</b>	<b>\$251</b>	<b>\$244</b>	<b>\$240</b>	<b>\$249</b>
<b>Operator and land return</b>	<b>\$20</b>	<b>\$186</b>	<b>\$214</b>	<b>\$70</b>	<b>\$246</b>	<b>\$132</b>	<b>\$217</b>	<b>\$100</b>

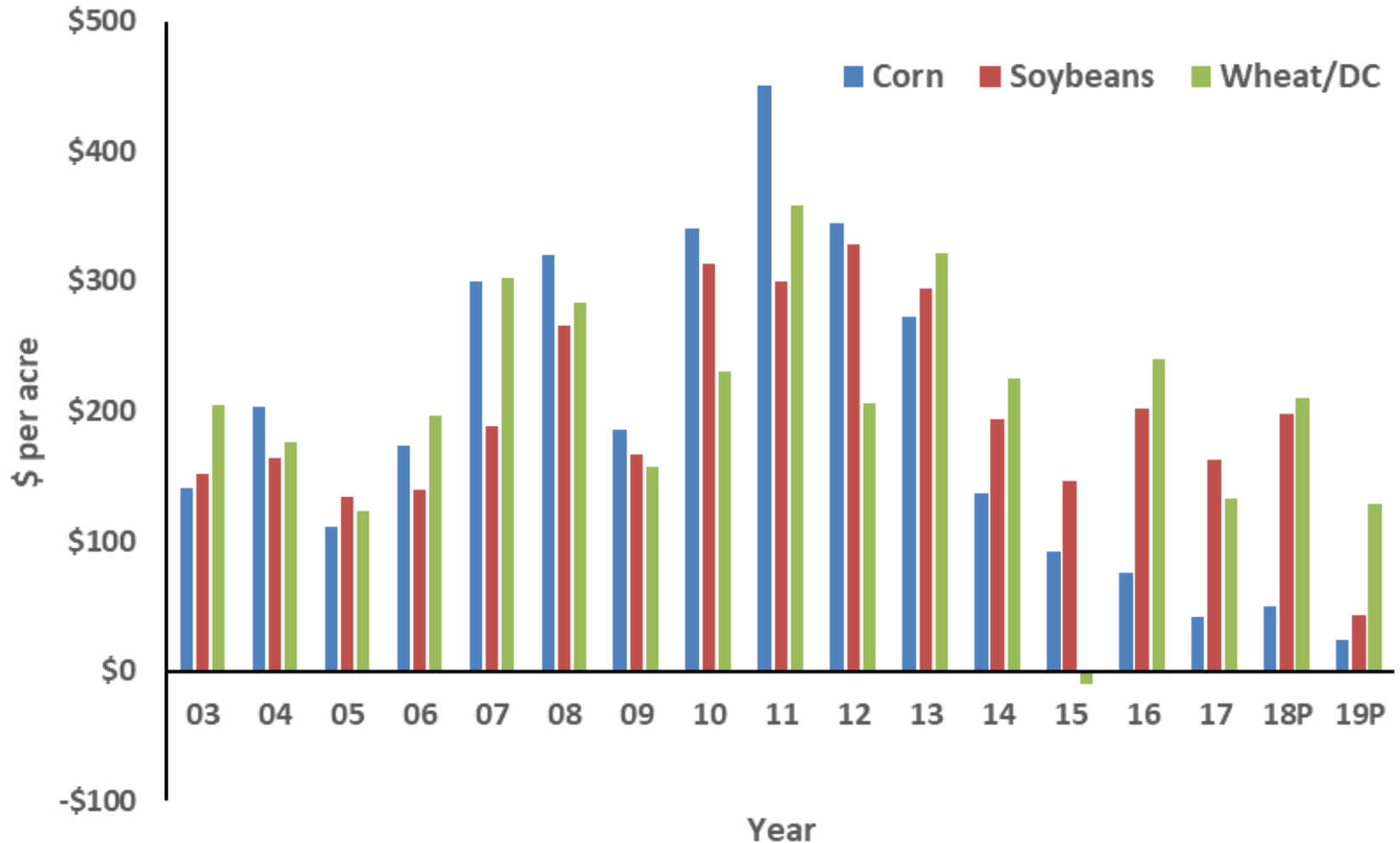


# Operator and Land Return, Southern Illinois, By Period

	Years		
	03-05	06-12	13-18
Corn	157	302	111
Soybeans	148	242	199
Wheat/DC	176	248	187
Wheat	71	99	9
DC soybeans	104	149	177
DC percent	59%	60%	61%



# Operator and Land Return, Southern Illinois





# Yields, Southern Illinois

Year	Corn	Soybeans	Wheat	DC
2003	134	39	60	33
2004	170	50	61	34
2005	138	49	66	34
2006	144	48	70	36
2007	145	37	57	27
2008	168	48	66	37
2009	163	44	57	32
2010	148	49	61	30
2011	141	44	61	36
2012	56	41	72	17
2013	183	49	76	32
2014	194	55	67	35
2015	163	52	66	34
2016	169	56	78	51
2017	171	54	83	45
2018P	165	57	72	41



# Budgeted Costs, 2019

	\$/acre		Break-Even Yields	
			Cost Level	
			\$188	\$250
Fertilizer	\$28			
Pesticides	40			
Seed	48			
Drying	1			
Crop Insurance	4	8.00	24	31
Planting	13	8.50	22	29
Combine	31	9.00	21	28
Spray	4	9.50	20	26
Hauling	8	10.00	19	25
Labor	11			
<b>Additional Costs</b>	<b>\$188</b>			



# Five-Year Breakout of Farms

	<b>Low 1/3</b>	<b>Mid 1/3</b>	<b>High 1/3</b>
Operator and Land Return	\$135	\$208	\$287
Tillable acre	1,208	1,349	1,391
Percent Wheat	8.7%	6.3%	9.2%
Percent DC of wheat	81%	76%	81%



# Seven Habits



1. **Production maintained at high levels**
2. **Innovative but not on the bleeding edge**
3. **Always evaluating production technologies**
4. **Returns are the evaluation criteria**
5. **Cost control is paramount**
6. **The right expertise is brought to the farm**
7. **Create additional revenue**

# More Profitable Farms Southern Illinois / Wheat

---

- **Do they include wheat? – Most do (87%)**
  - Mainly in modest amounts (around 9% of acres)
  - I believe the spring season is why (??)
- **Do they do double-crop beans? -- Yes if wheat**
- **Do they get higher wheat yields?**
  - Yes, but not large
- **Do they spend more on wheat pesticides?**
  - Slightly (not statistically significant)
- **FTE at 1,200 acres per person**
- **One combine per person**



# Summary

---

- **Wheat competes against corn and soybeans with double-crop**
- **Farms with wheat have similar returns to farms without wheat, particularly when**
  - **Double crop**
  - **Modest wheat acre**

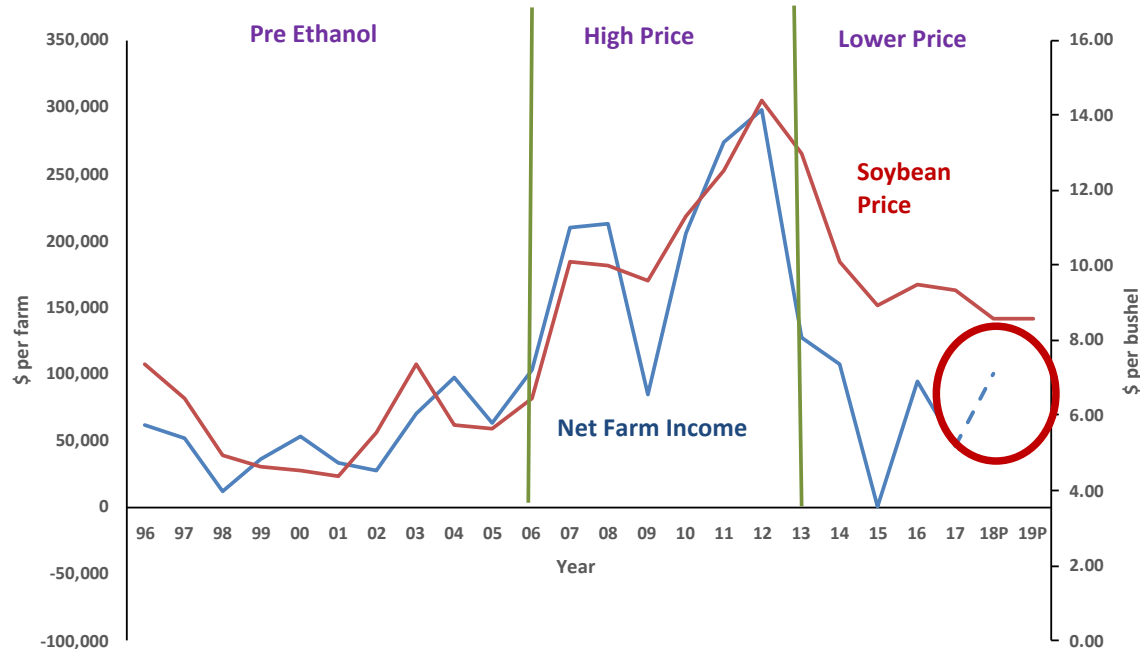


# Current Environment

---

# Grain Farm Income in 2018 Expected Higher than in 2017

Grain Farm Income and Soybean Prices



**Should see improvement in working capital and debt-to-asset positions on many (not all) farms.**

**Why?**

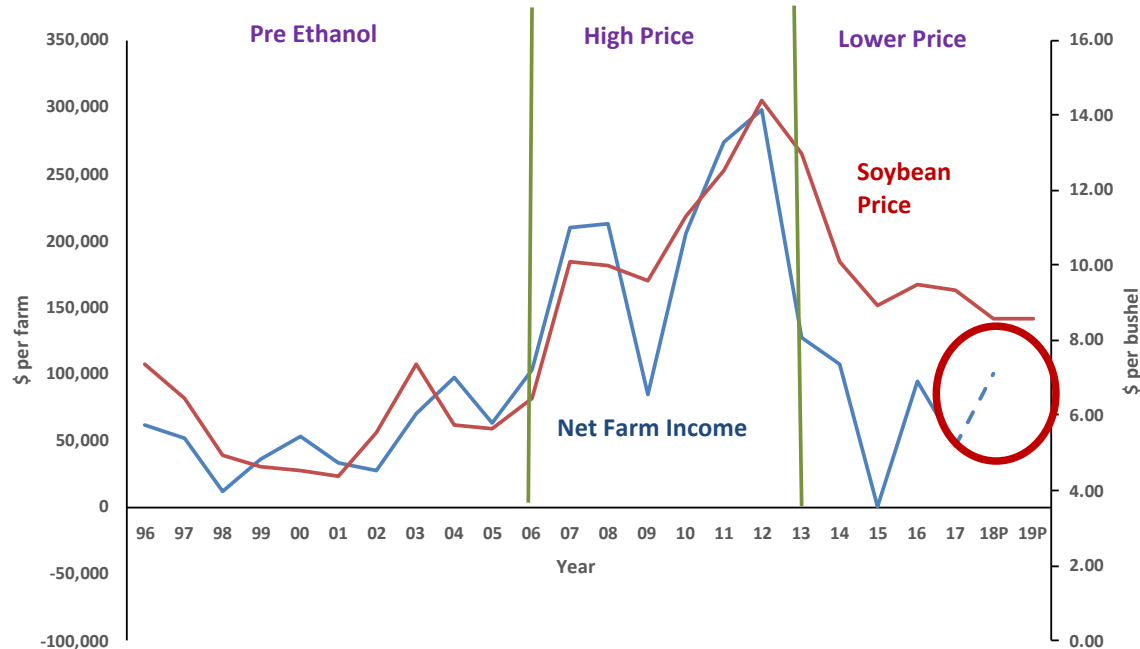
- 1. Exceptional yields**
- 2. Chance to price grain at higher prices in spring**
- 3. Market Facilitation Program payments**





# Grain Farm Income in 2018 Expected Higher than in 2017

Grain Farm Income and Soybean Prices



Should see improvement in working capital and debt-to-asset positions on many (not all) farms.

Why?

1. Exceptional yields
2. Chance to price grain at higher prices in spring
3. Market Facilitation Program payments



# 2019 Income Projections



# Be Careful

---

- 1. Save money**
- 2. DO a cash flow**
- 3. Begin marketing the 2019 crop**
- 4. Take a high level of crop insurance**
- 5. Talk to land owners**

