

Agricultural Outlook in 2021 and beyond

An aerial photograph of a rural landscape at sunset. The sun is low on the horizon, casting a warm orange and red glow across the sky. The ground is a mix of dark, tilled fields and lighter, harvested areas. A long, straight road or path runs through the center of the image. In the distance, a small farmstead with a white house and a barn is visible. Overlaid on the right side of the image is a portrait of a man with glasses, wearing a dark suit, a light blue shirt, and a patterned tie.

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ILLINOIS
Agricultural &
Consumer Economics
COLLEGE OF AGRICULTURAL, CONSUMER
& ENVIRONMENTAL SCIENCES

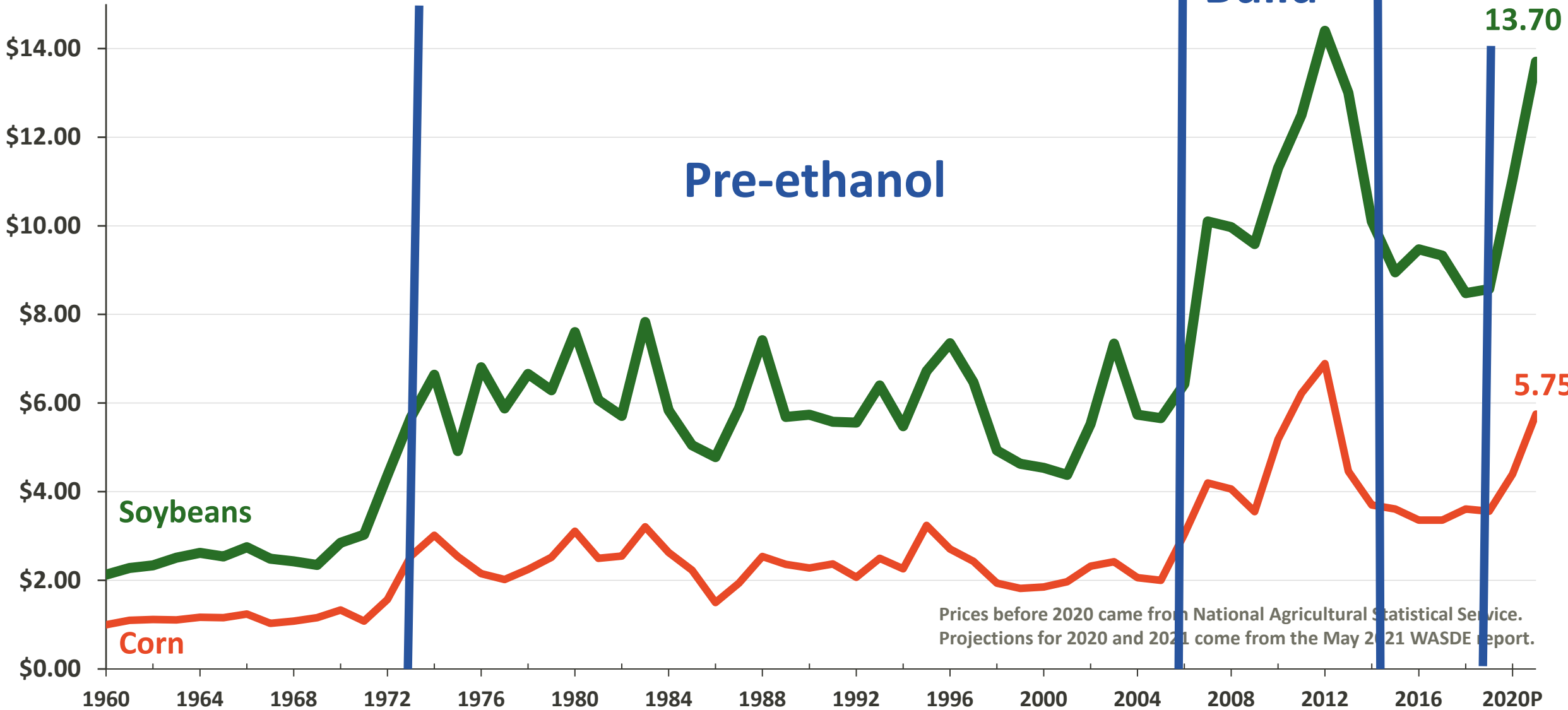
Gary Schnitkey

Topics

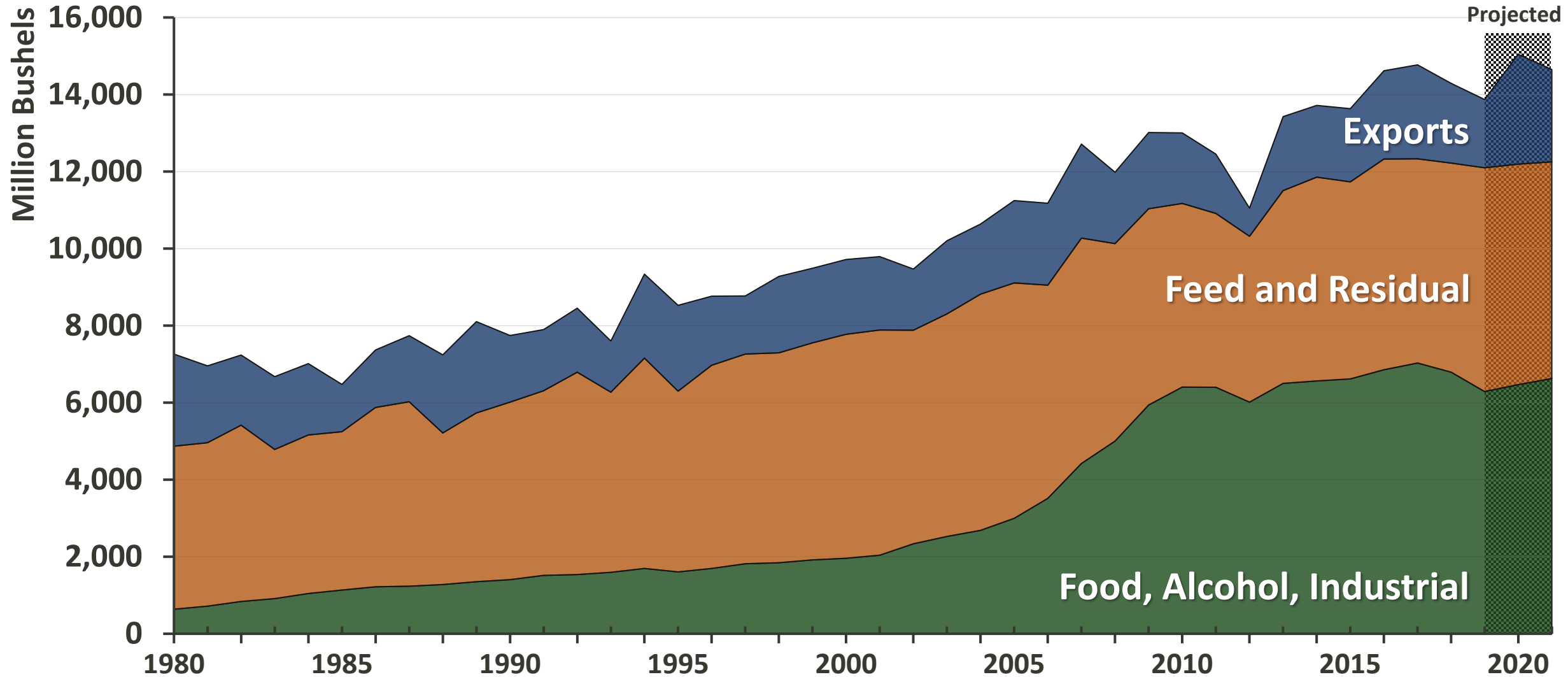
- Prices and costs outlook for 2022
- Cash rents
- Farmland prices
- Five-years from now

U.S. Market Year Average Prices for Corn and Soybeans

1960 to 2021P

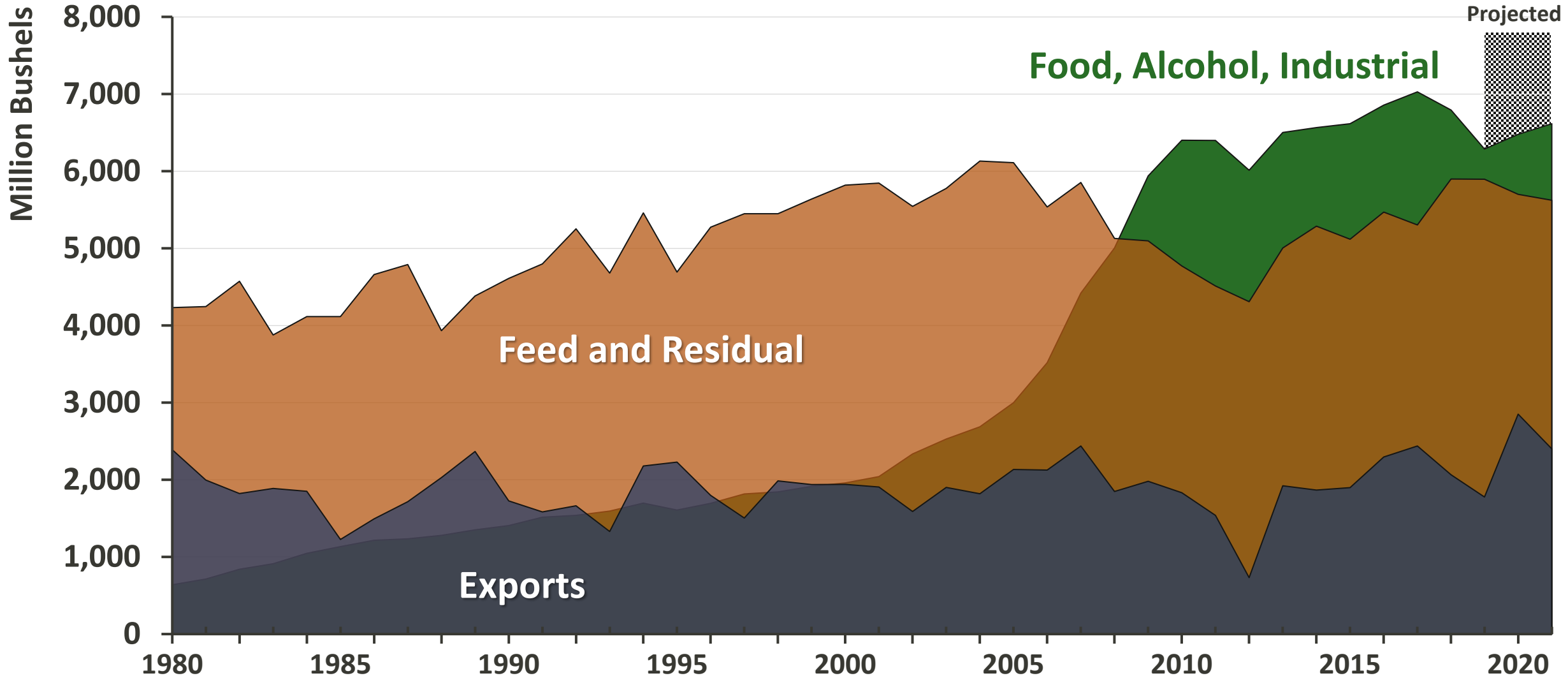


Corn Use in the U.S., 1980 to 2021P



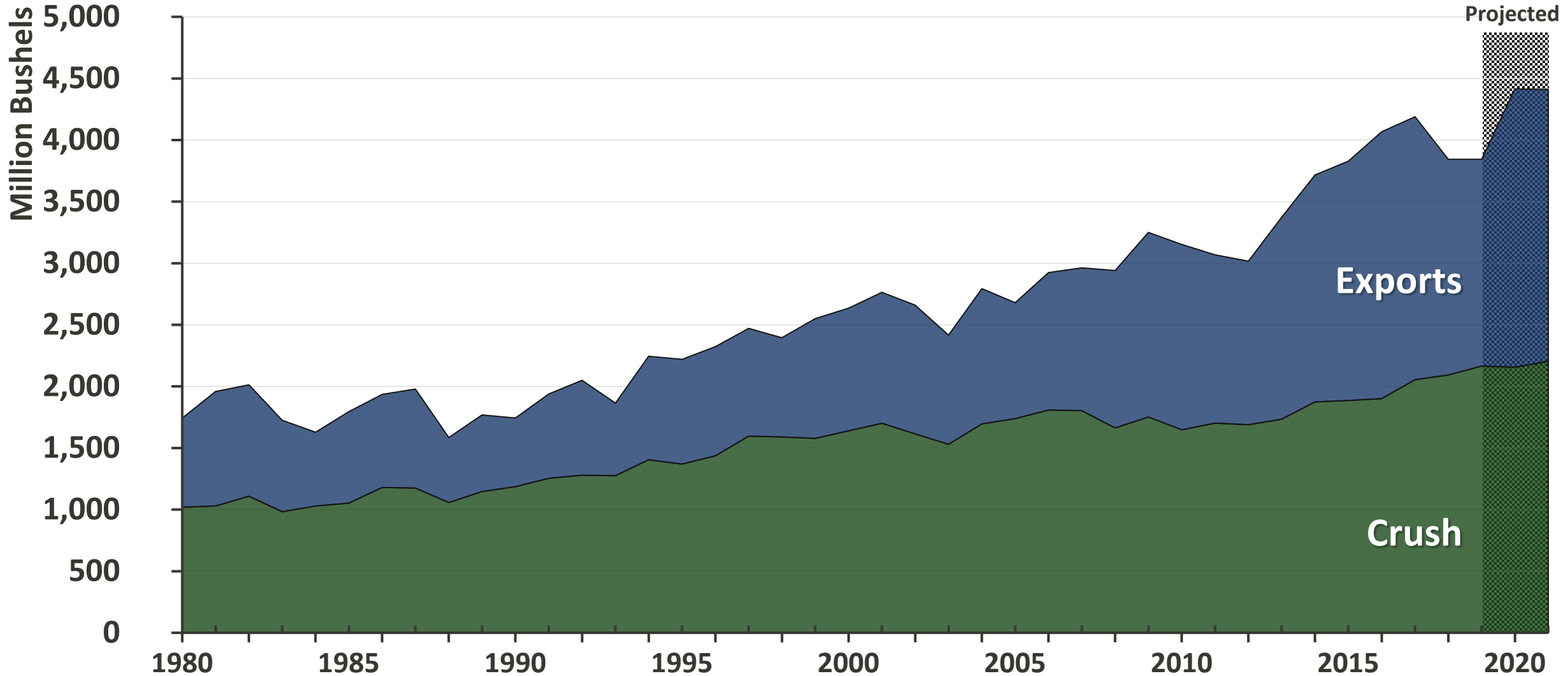
Source: Historical data (1980 - 2018) from Economic Research Service, USDA, 2019 and 2020 data from April 2021, World Agricultural Supply and Demand Estimates report

Corn use in the U.S, 1980 to 2021P



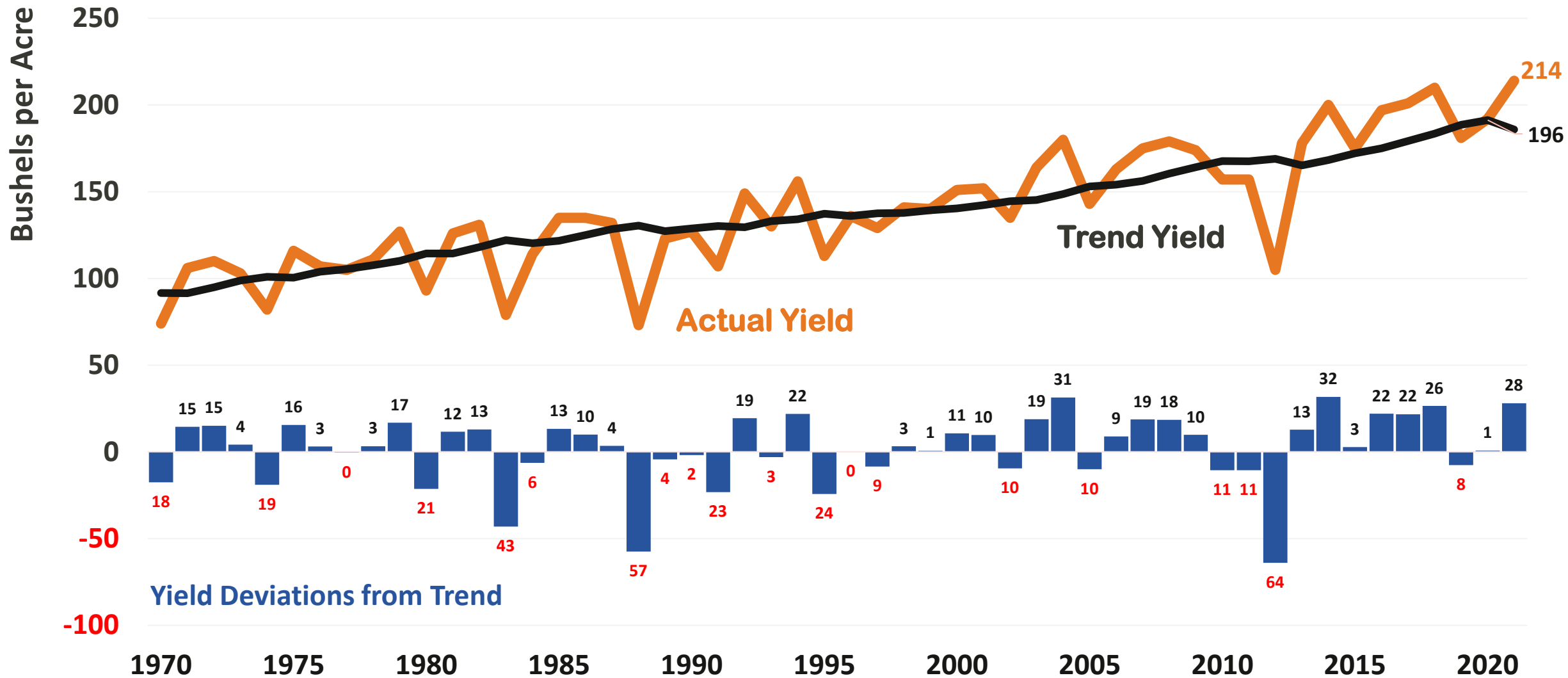
Source: Historical data (1980 - 2018) from Economic Research Service, USDA, 2019 and 2020 data from April 2021, World Agricultural Supply and Demand Estimates report

Soybean use in the U.S, 1980 to 2021P

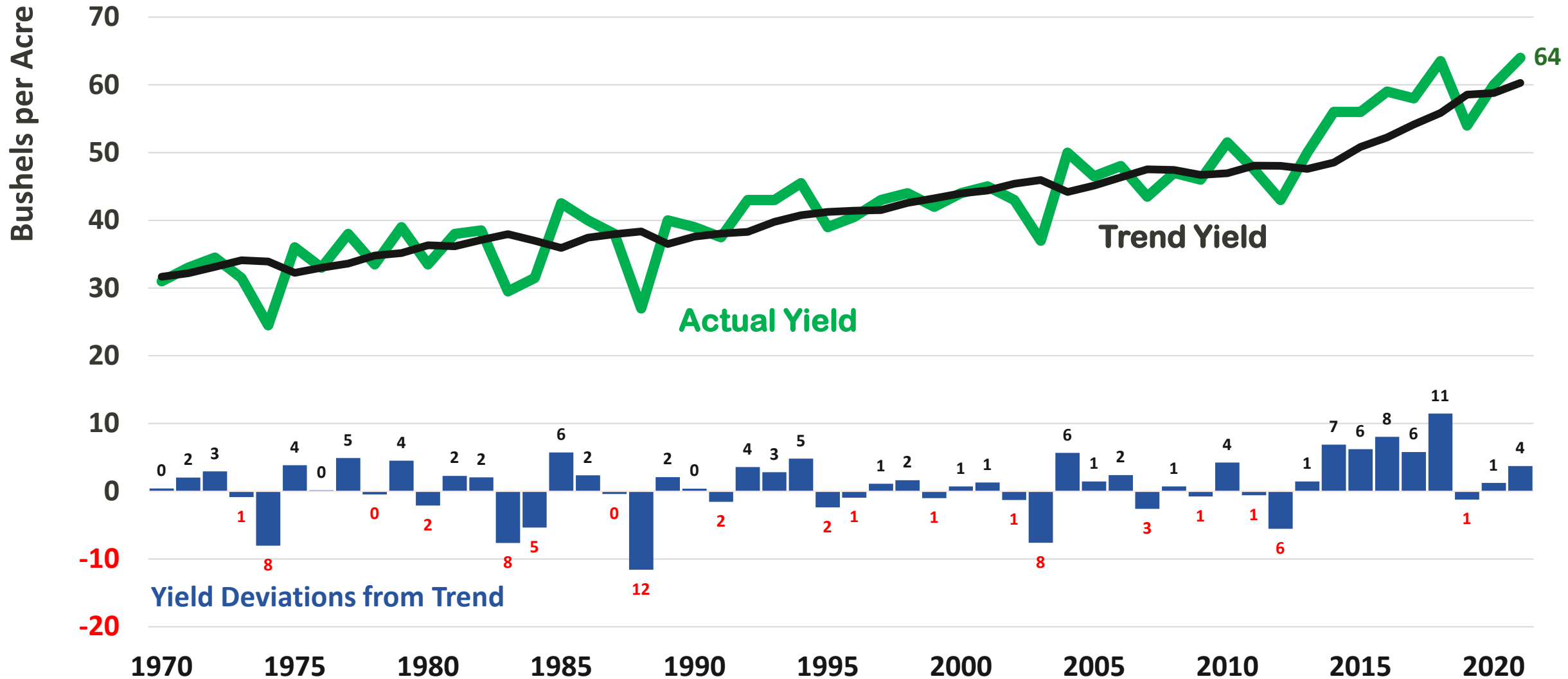


Source: Historical data (1980 - 2018) from Economic Research Service, USDA, 2019 and 2020 data from April 2021, World Agricultural Supply and Demand Estimates report

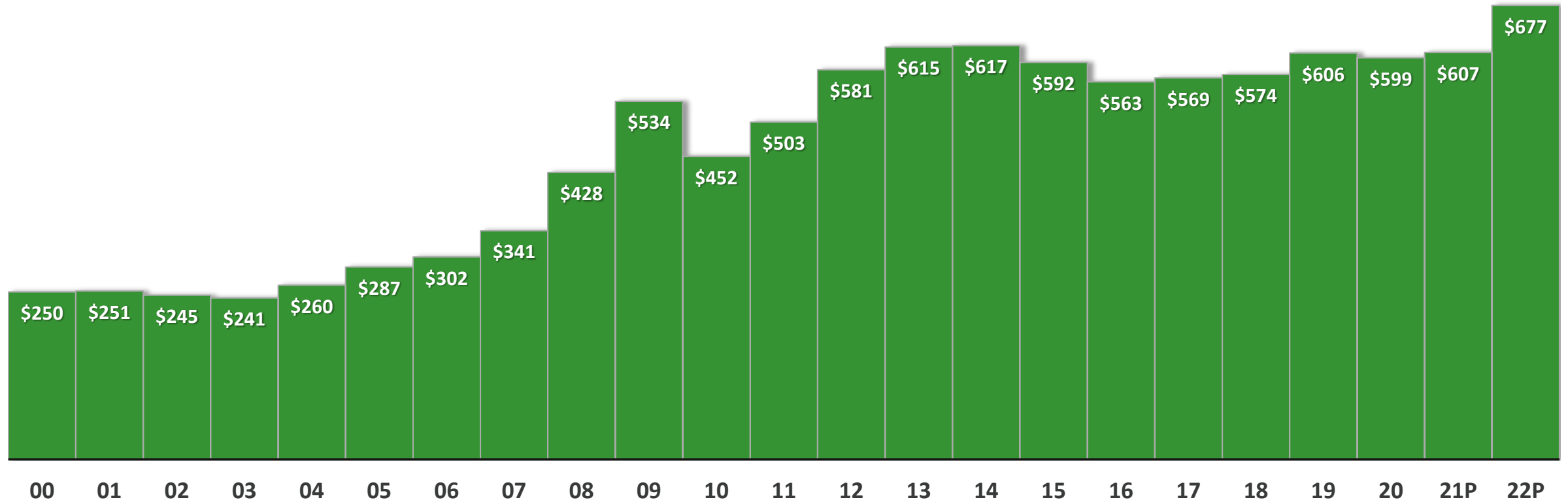
Illinois Corn Yields, 1970 to 2021P



Illinois Soybean Yields, 1970 to 2021P



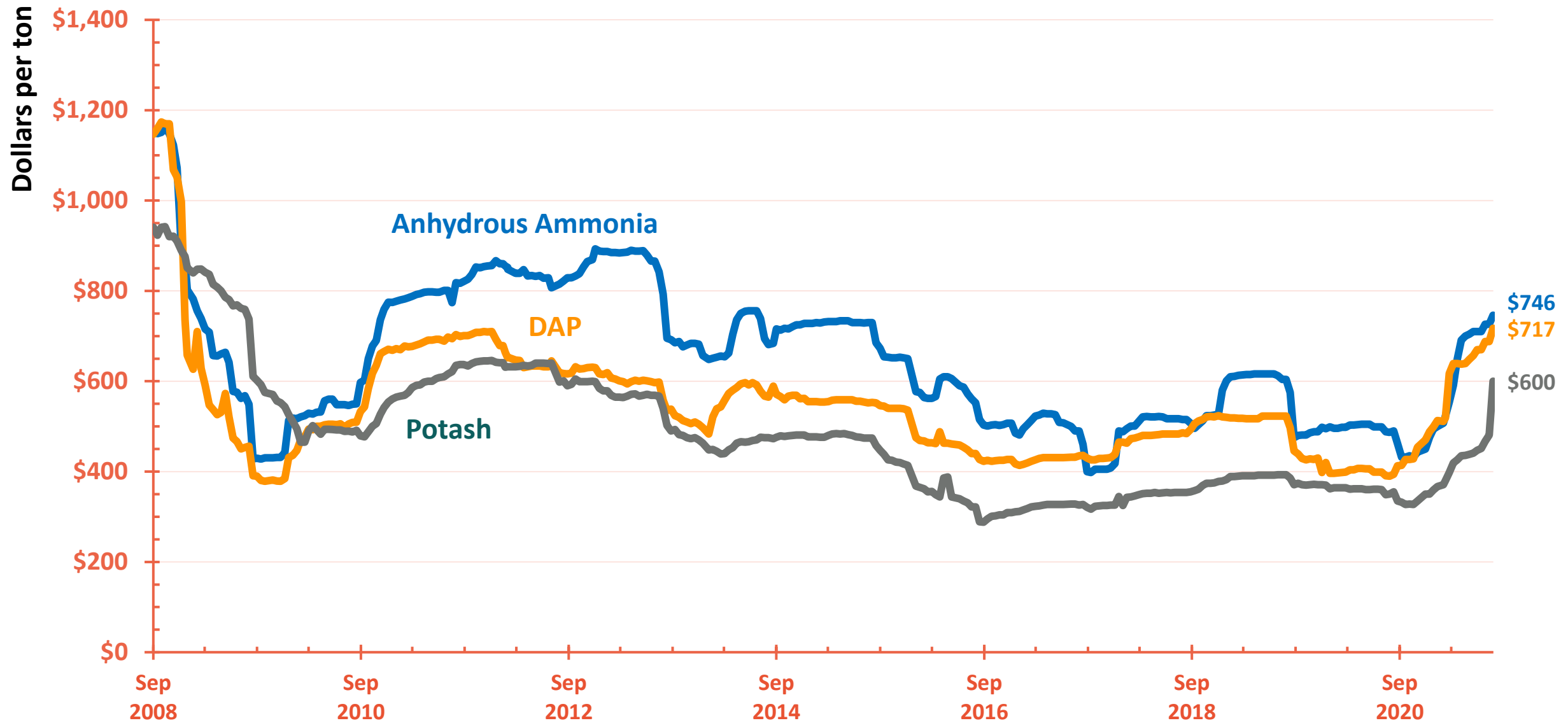
Non-land Cost to Produce Corn



Source: Data summarized from farms enrolled in Illinois Farm Business Farm Management (FBFM)

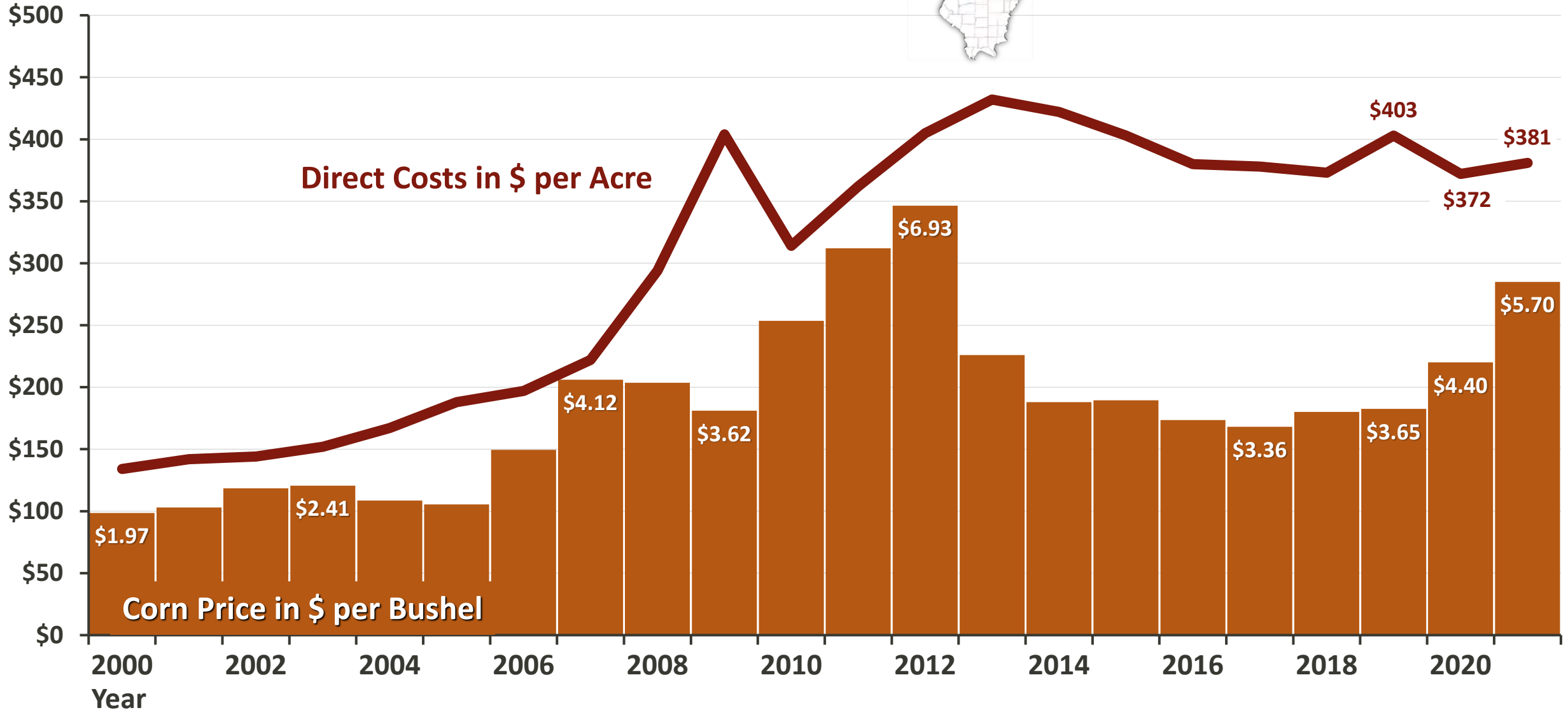
Fertilizer Prices in Illinois From 2008 To 2021

September 2008 to July 2021



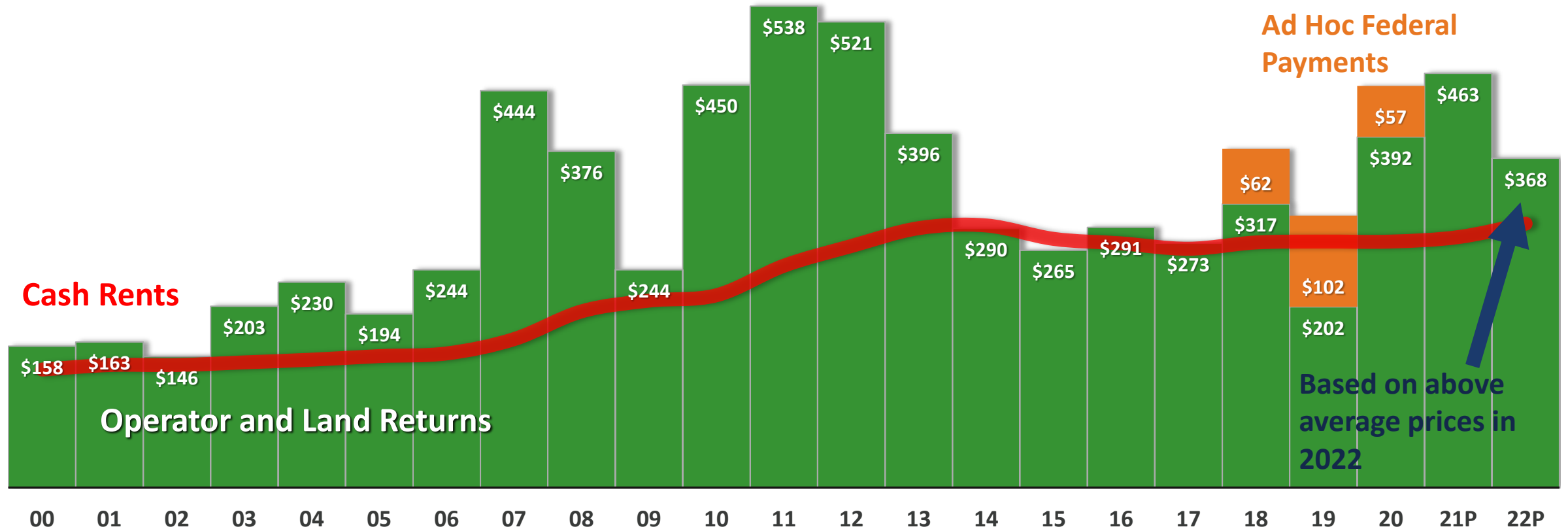
Direct Costs and Corn Prices

Center Illinois with High-Productivity Farmland, 2000 to 2021



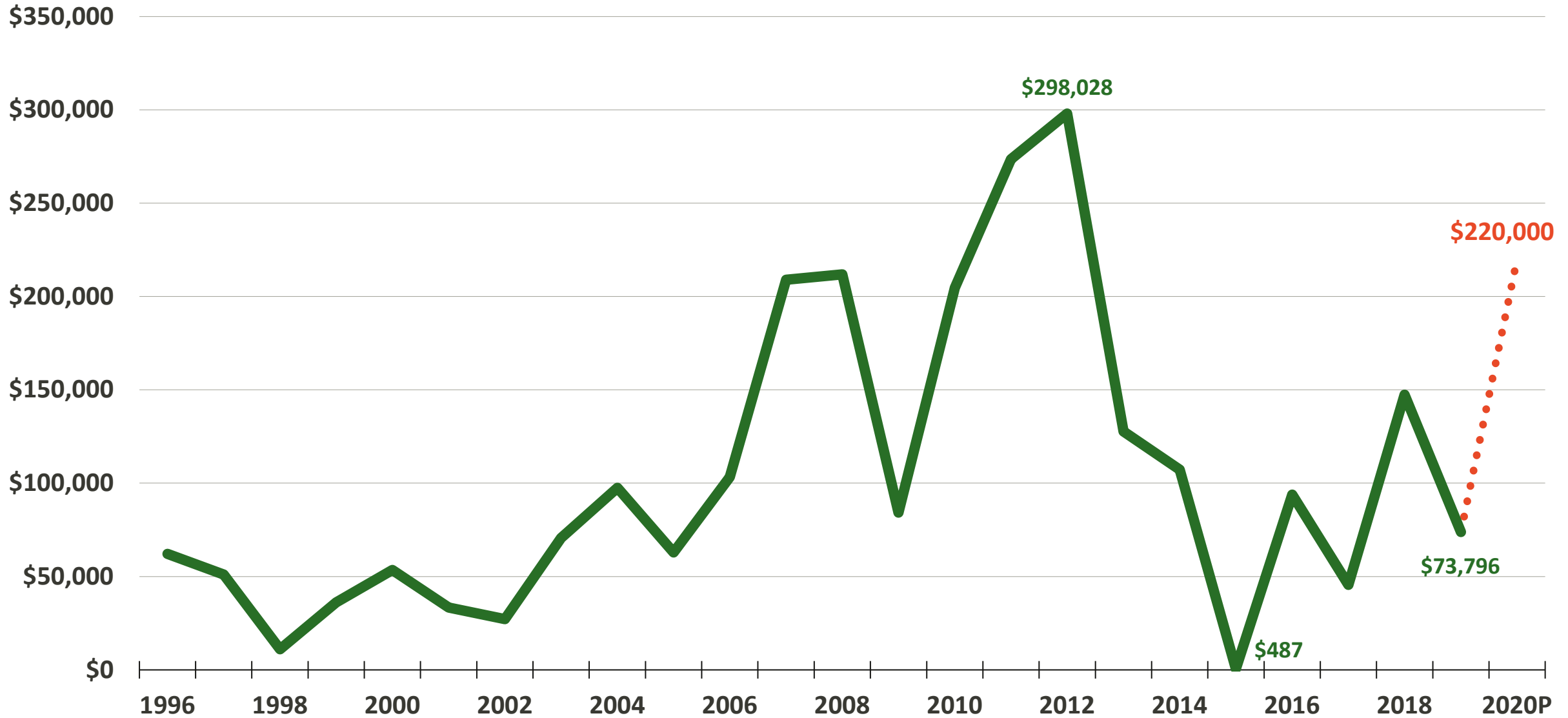
Operator and Land Returns and Cash Rents, High-Productivity Farmland in Central Illinois, 2000 to 2021P.

Ad hoc payments helped to achieve break-even returns in 2019 and 2020***
Flat rents and other costs



Source: Data summarized from farms enrolled in Illinois Farm Business Farm Management (FBFM)

Grain Farm Net Incomes, Illinois FBFM



Cash Rents



Farmland Leased in Illinois

In Illinois, **50%** of farmland is rented (ERS, 2016)

Illinois has largest rented percent in U.S.

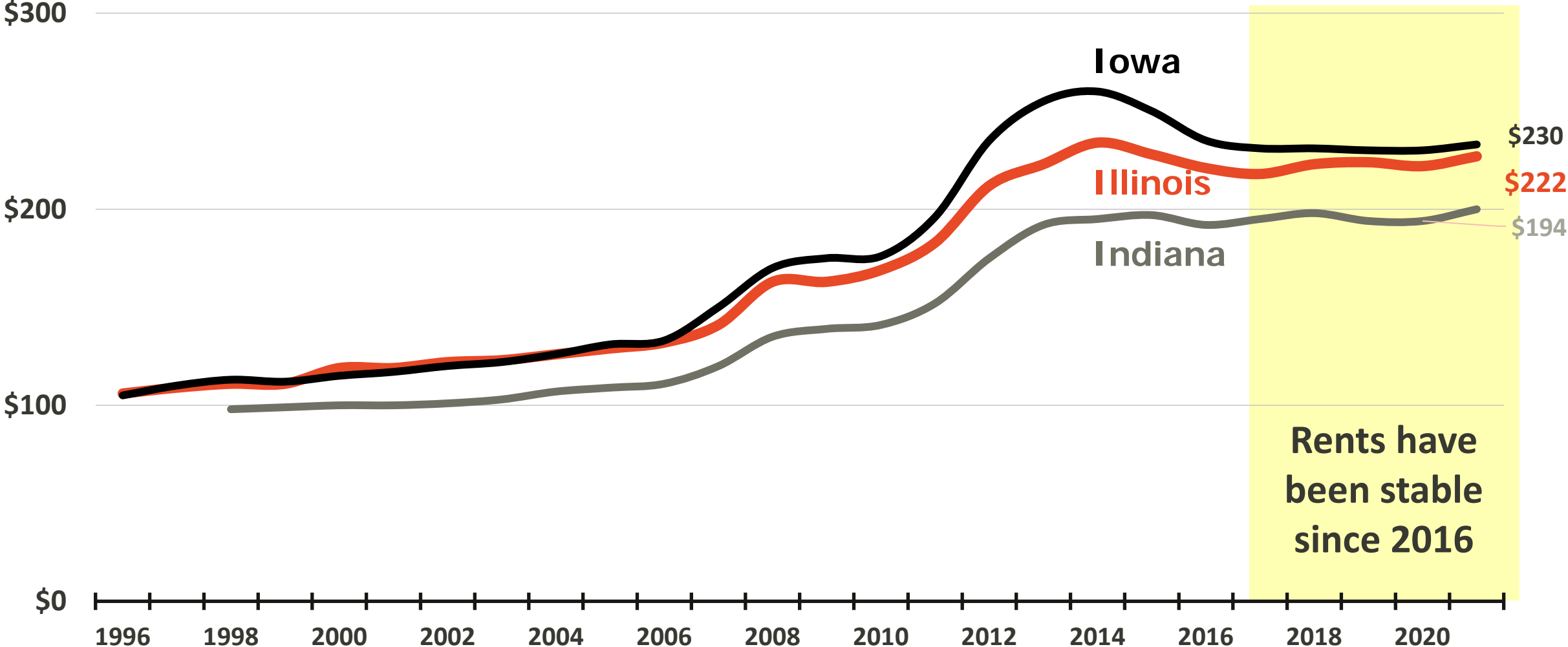
- Indiana, 45%
- Iowa, 41%
- Ohio, 37%

Larger grain farms tend to rent more

Tenure on grain farms in FBFM, 2019

	Northern	Central	Southern
Owned	19%	14%	22%
Share-rent	21%	42%	36%
Cash-rent	60%	44%	42%

Average Cash Rents in **Illinois**, Indiana, and Iowa



Source: National Agricultural Statistical Service

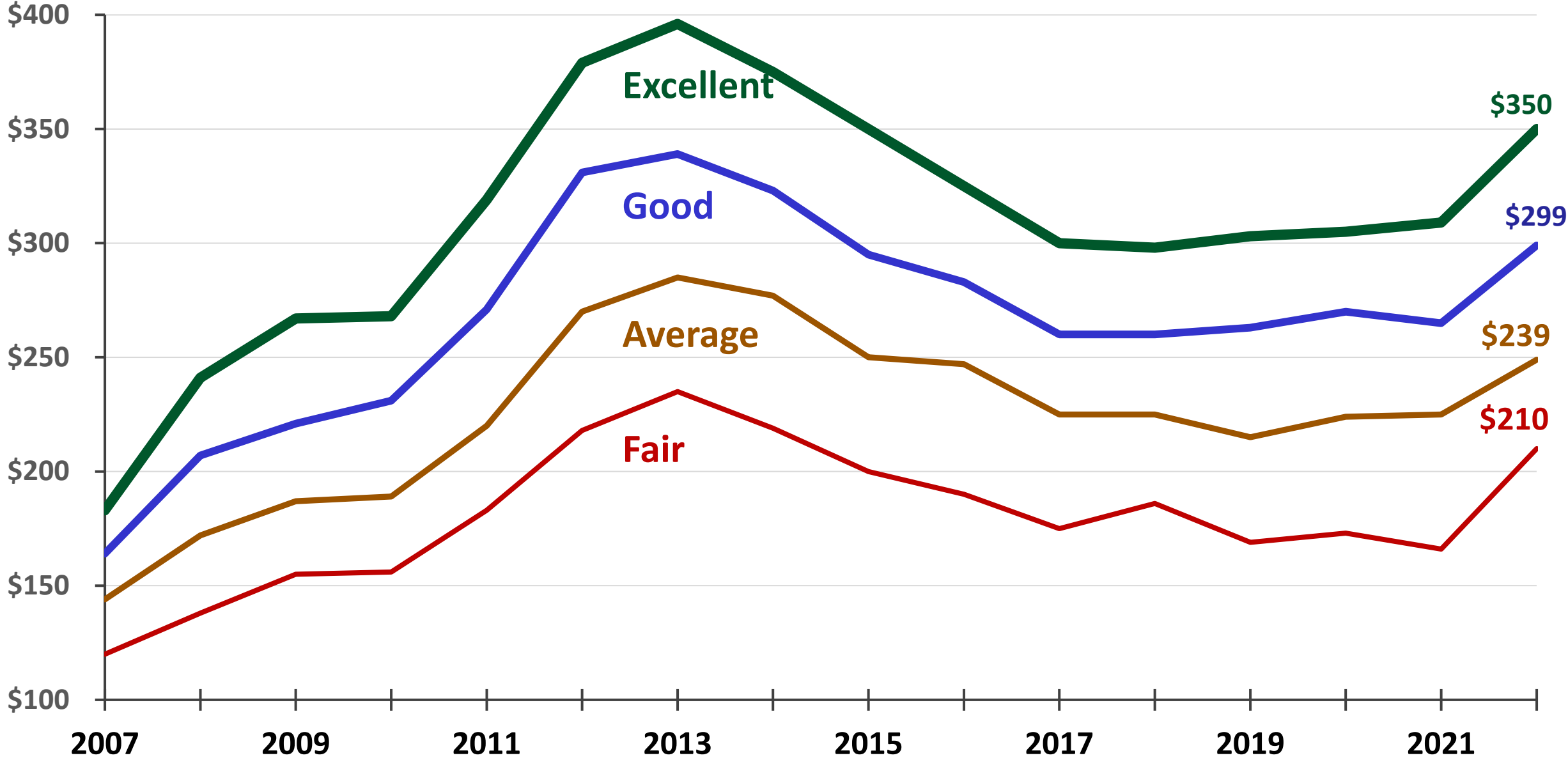
Illinois Society Cash Rents (Professionally Managed)

Year	Land Quality			
	Excellent	Good	Average	Fair
2008	\$241	\$207	\$172	\$138
2009	\$267	\$221	\$187	\$155
2010	\$268	\$231	\$189	\$156
2011	\$319	\$271	\$220	\$183
2012	\$379	\$331	\$270	\$218
2013	\$396	\$339	\$285	\$235
2014	\$375	\$323	\$277	\$219
2015	\$350	\$295	\$250	\$200
2016	\$325	\$283	\$247	\$190
2017	\$300	\$260	\$225	\$175
2018	\$298	\$260	\$225	\$186
2019	\$303	\$263	\$215	\$169
2020	\$305	\$270	\$224	\$173
2021	\$315	\$270	\$226	\$188
2022P	\$350	\$299	\$249	\$210

**Cash Rents
of Survey in
\$ per acre**



Historic Cash Rents of Survey in Dollars per Acre

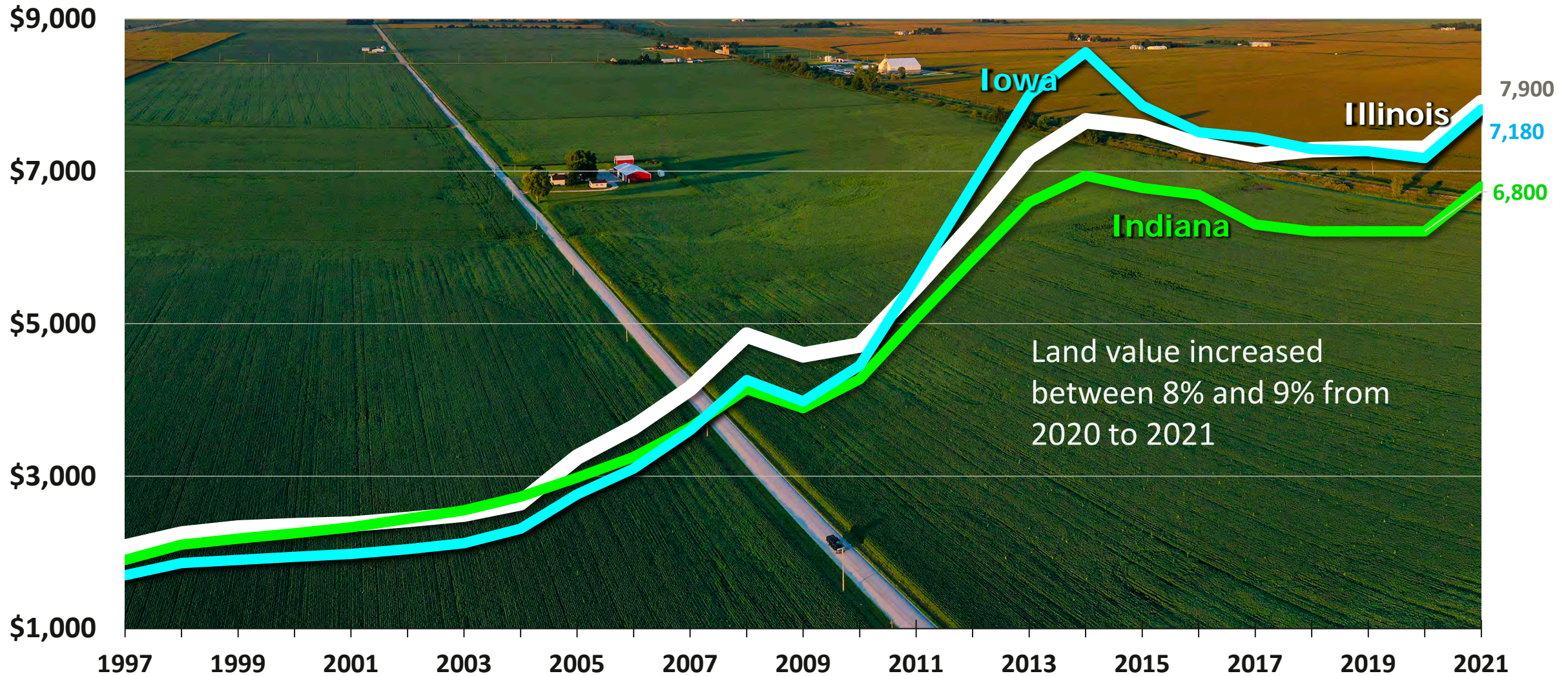


Farmland Price Outlook



Up

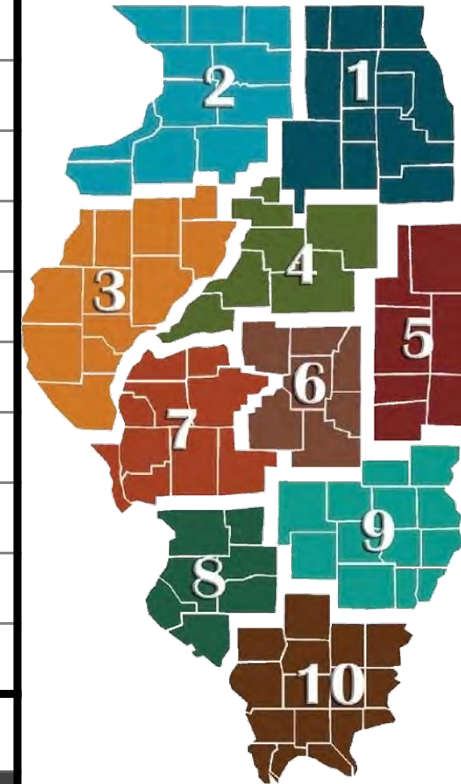
Farmland Values in the I-States



All Categories of Farmland The Great State of Illinois-2020

These figures are the **median values** from the committee data as reported by each region on the categories shown.

	<i>Excellent</i>	<i>Good</i>	<i>Average</i>	<i>Fair</i>	<i>Recreational</i>	<i>Transitional</i>
Region 1	\$10,050	\$8,165	\$6,055	--	--	--
Region 2	\$10,372	\$8,300	\$5,683	\$4,784	\$4,159	--
Region 3	\$12,100	\$6,790	\$4,450	--	\$3,500	--
Region 4	\$11,000	\$8,750	\$5,925	\$6,945	--	--
Region 5	\$10,382	\$8,088	\$6,152	--	\$4,600	--
Region 6	\$10,750	\$9,250	\$7,025	\$6,000	\$4,000	\$33,333
Region 7	\$11,600	\$9,000	\$7,050	--	\$3,380	--
Region 8	----	\$11,548	\$8,532	\$6,893	\$3,400	\$10,041
Region 9	----	\$7,001	\$7,039	\$4,870	\$3,033	--
Region 10	----	\$9,761	\$5,250	\$4,000	\$2,627	--
All Regions	\$10,695	\$8,400	\$6,055	\$5,000	\$3,658	\$10,379



Averages are dangerous - but they give us a snapshot of each category (for comparison).

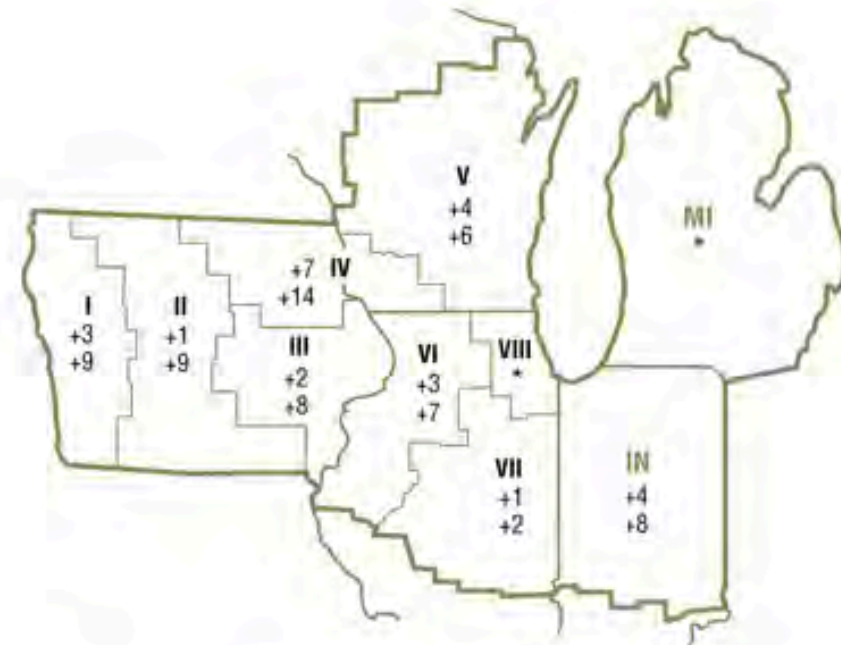
<i>Percent Avg. Price Change</i>	+4.2%	+1.3%	-1.4%	+5.1%	-5.5%	-25.3%
<i>Compared to Median change</i>	+3.7%	+2.0%	-4.6%	+2.3%	-2.2%	-27.3%



Federal Reserve Bank of Chicago, *AgLetter: May 2021*, David Oppendahl

Percent change in dollar value of "good" farmland

	January 1, 2021 to April 1, 2021	April 1, 2020 to April 1, 2021
Illinois	+2	+4
Indiana	+4	+8
Iowa	+4	+10
Michigan	*	*
Wisconsin	+4	+8
Seventh District	+3	+7

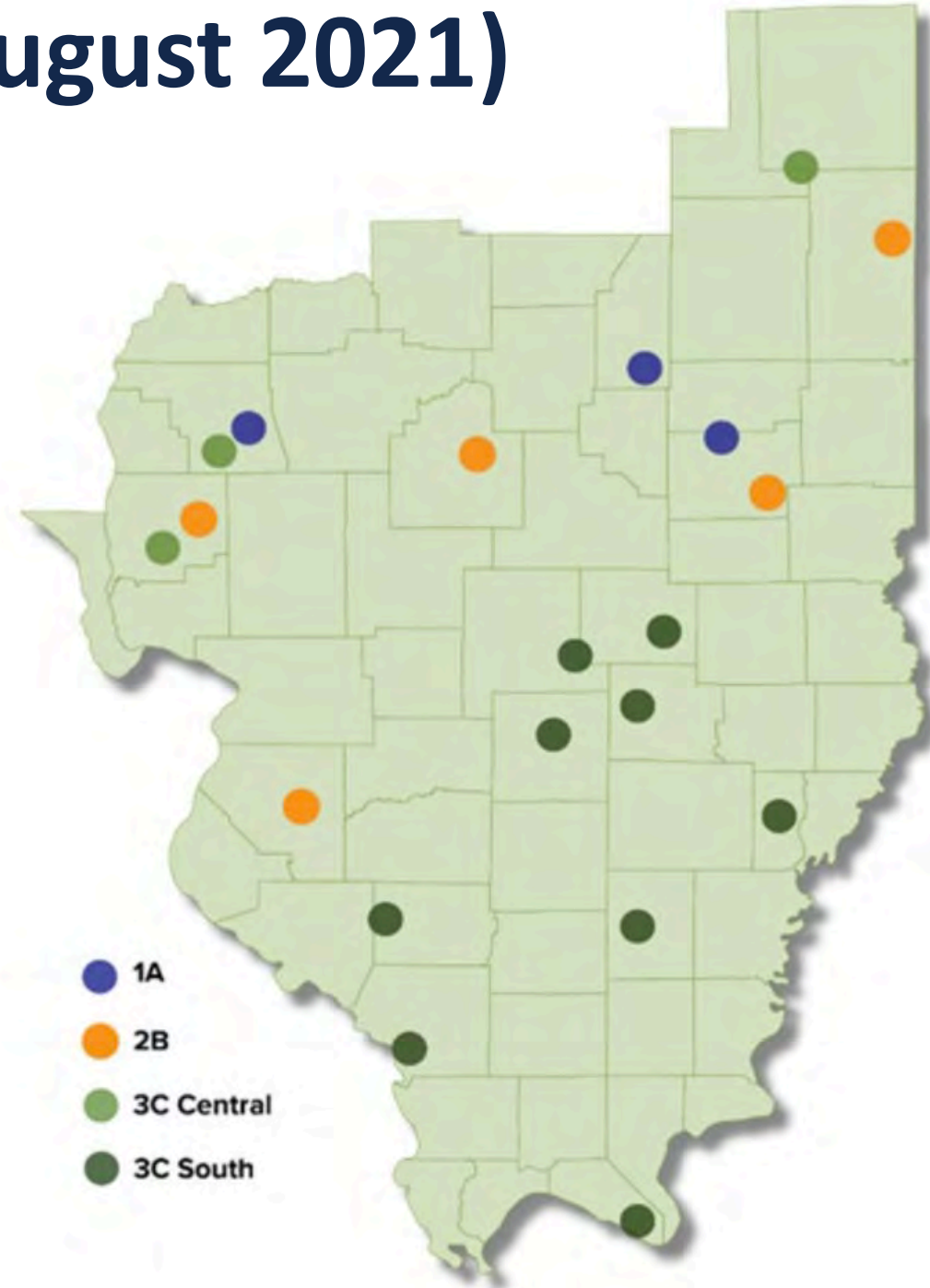
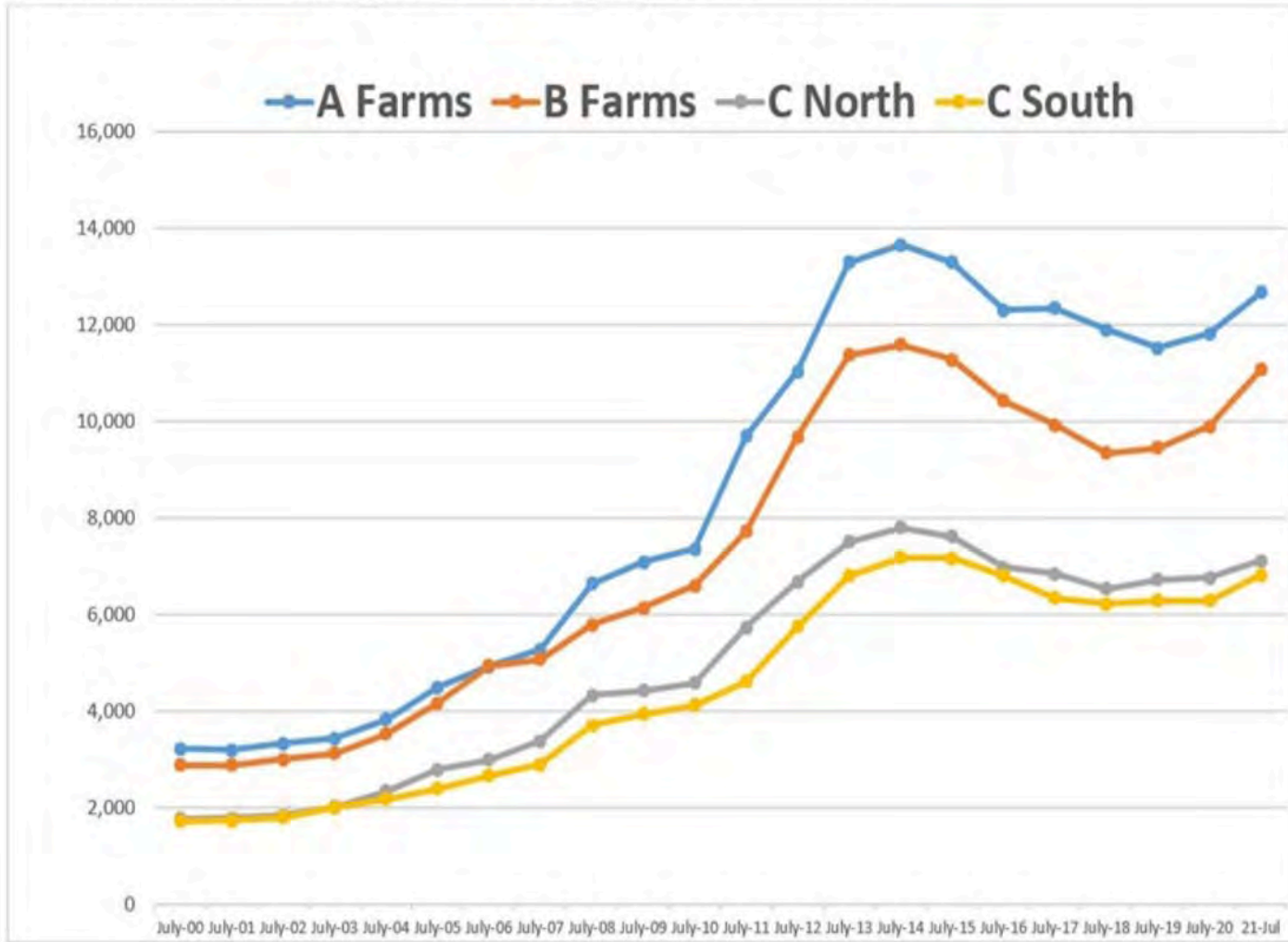


Top: January 1, 2021 to April 1, 2021

Bottom: April 1, 2020 to April 1, 2021

Farm Credit Illinois up 8.4% (August 2021)

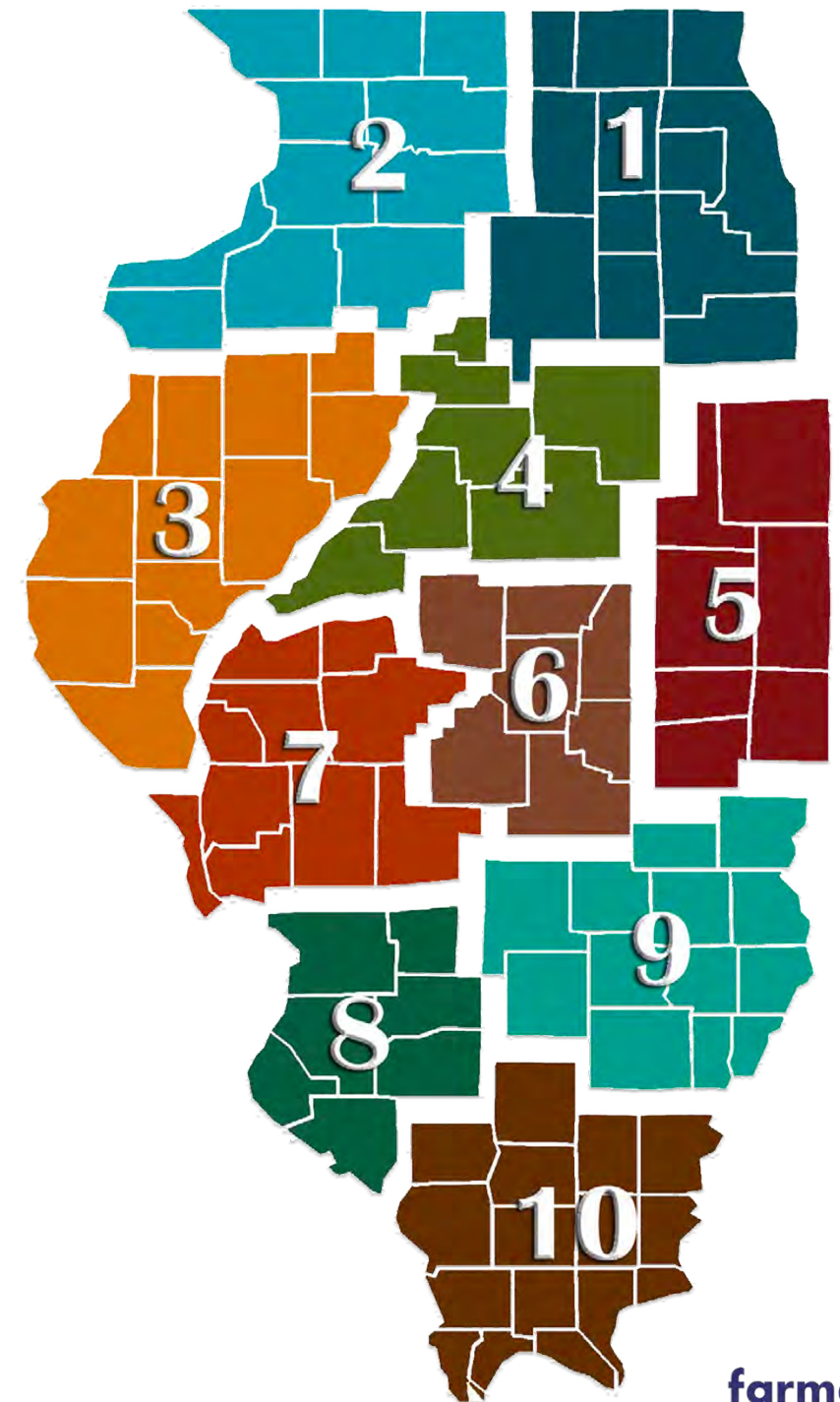
Benchmark Averages as of July 1, 2000 - 2021



August 6, 2021
 BY KENT REID CHIEF APPRAISER
 FARM CREDIT ILLINOIS, APPRAISAL SERVICES

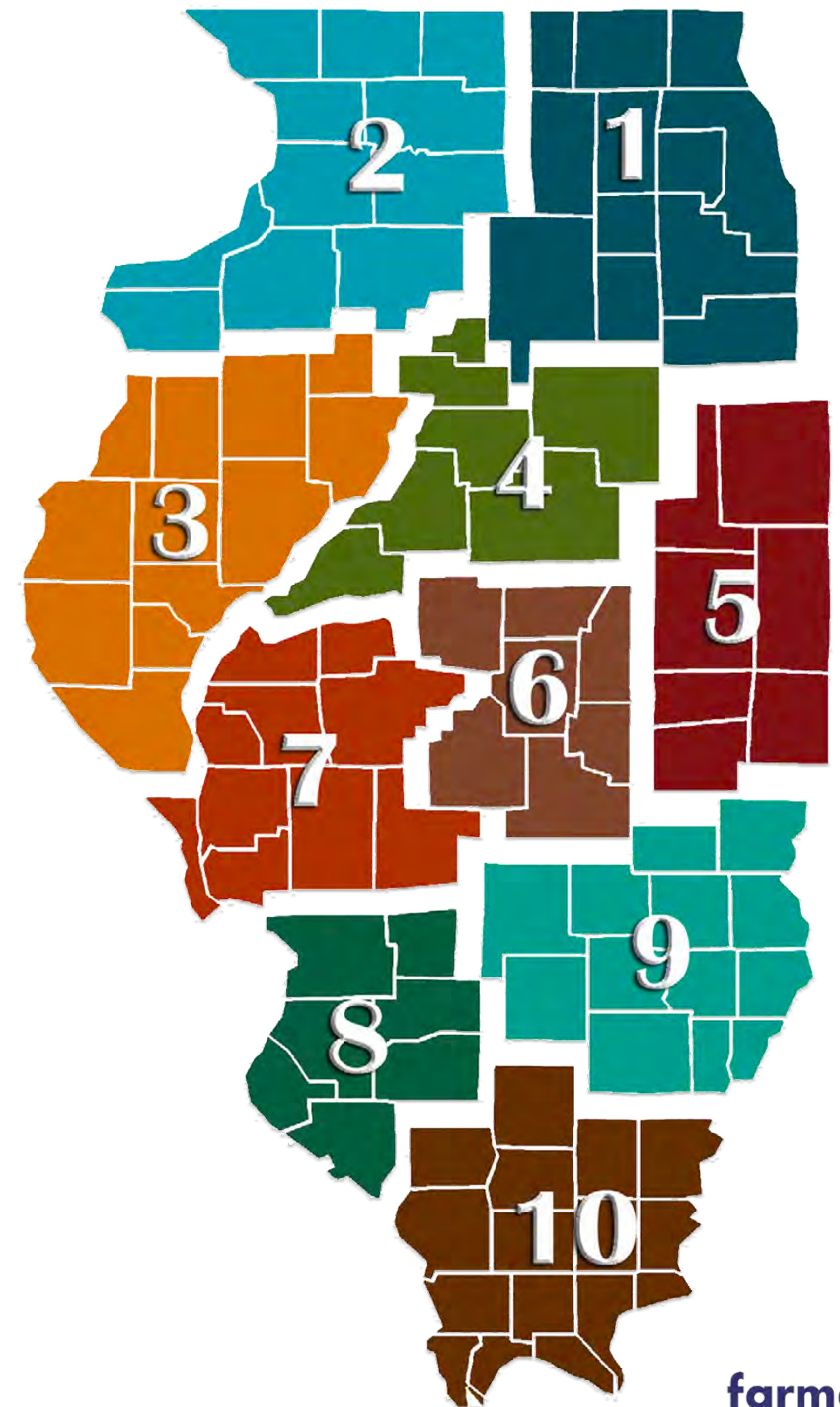
Excellent Quality Farmland

	<i>Farmland Price Jan 1, 2021</i>	<i>Mid-Year % change</i>
Region 1	\$10,050	+16.5%
Region 2	\$10,370	+15.7%
Region 3	\$12,100	+11.5%
Region 4	\$11,000	+23.9%
Region 5	\$10,380	+27.6%
Region 6	\$10,750	+23.6%
Region 7	\$11,600	+15.3%
Region 8		
Region 9		
Region 10		
All Regions	\$10,313	



Good Quality Farmland

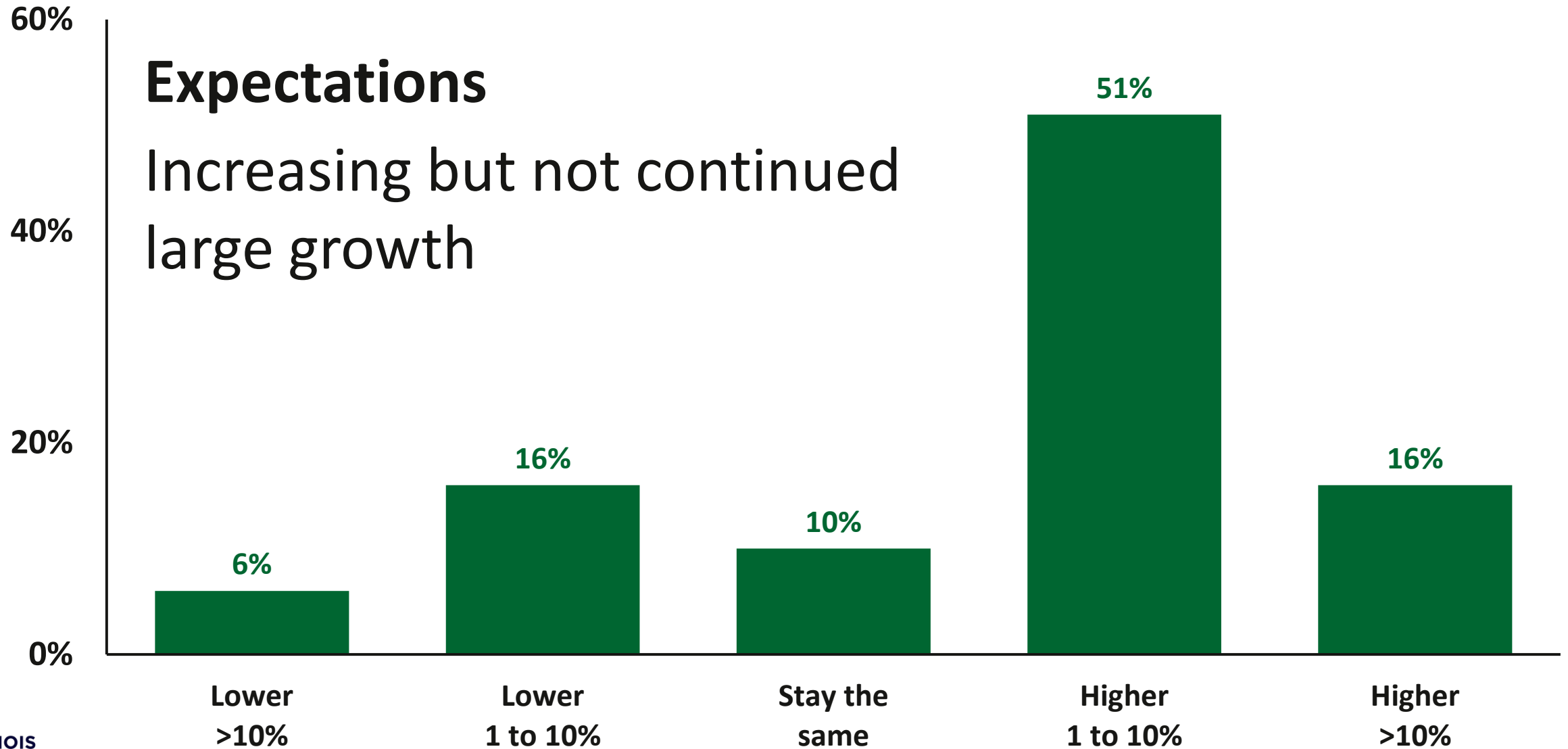
	<i>Farmland Price Jan 1, 2021</i>	<i>Mid-Year % change</i>
Region 1	\$8,165	+16.5%
Region 2	\$8,300	+10.0%
Region 3	\$8,790	+15.2%
Region 4	\$8,750	+23.9%
Region 5	\$8,090	+24.5%
Region 6	\$9,250	+20.0%
Region 7	\$9,000	+13.8%
Region 8		
Region 9		
Region 10		
All Regions	\$8,233	



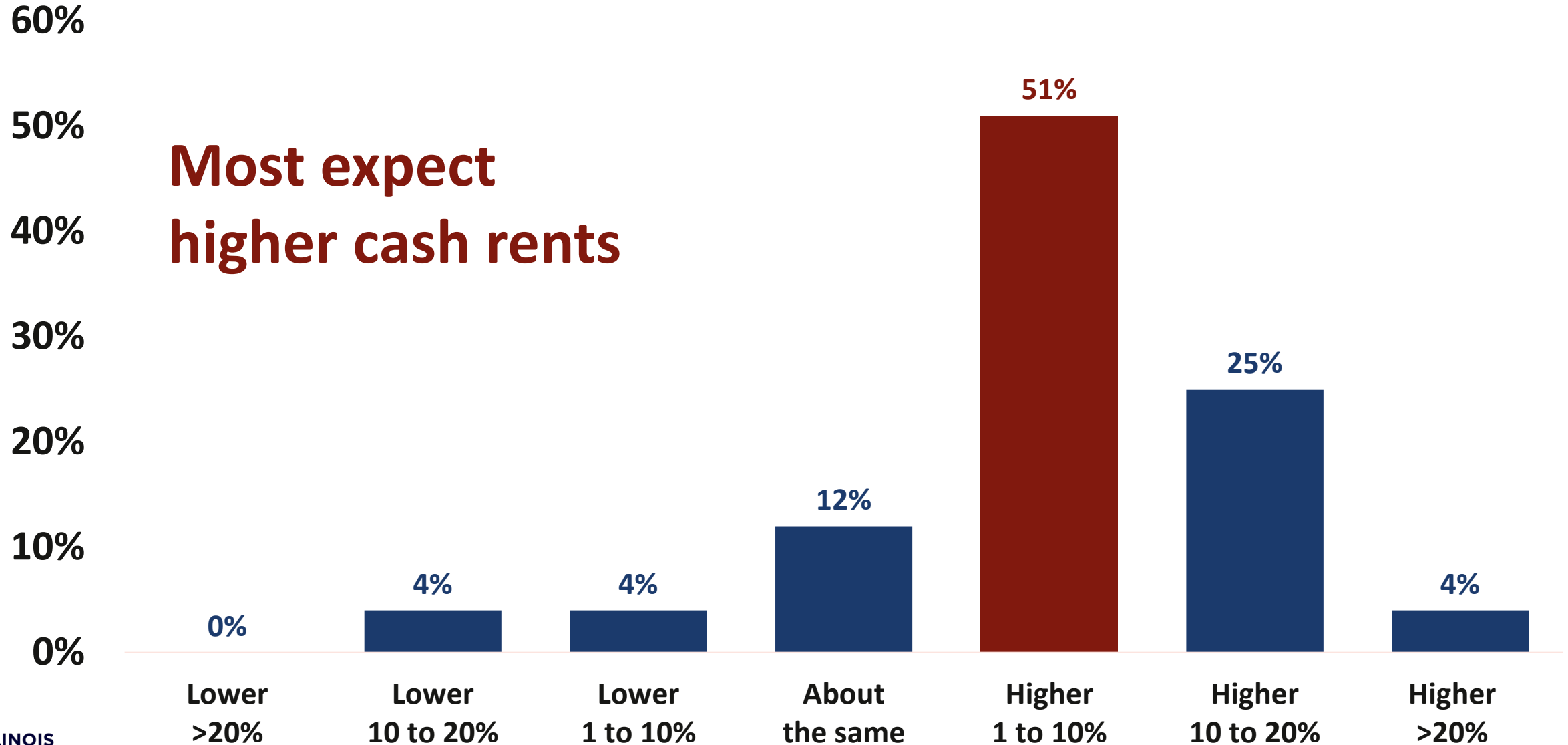
Five-Years from Now



Farmland Prices: Five-Years from Now



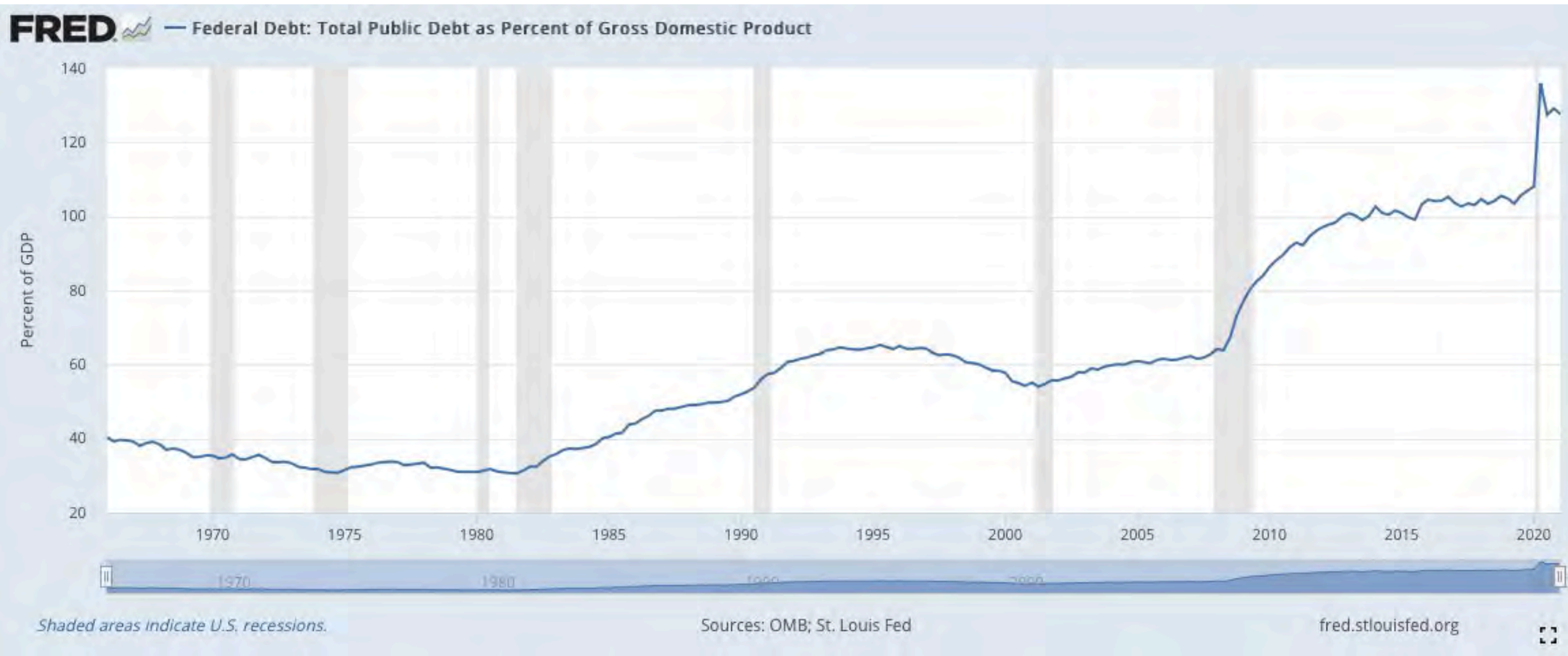
Cash Rents: Five-Years from Now



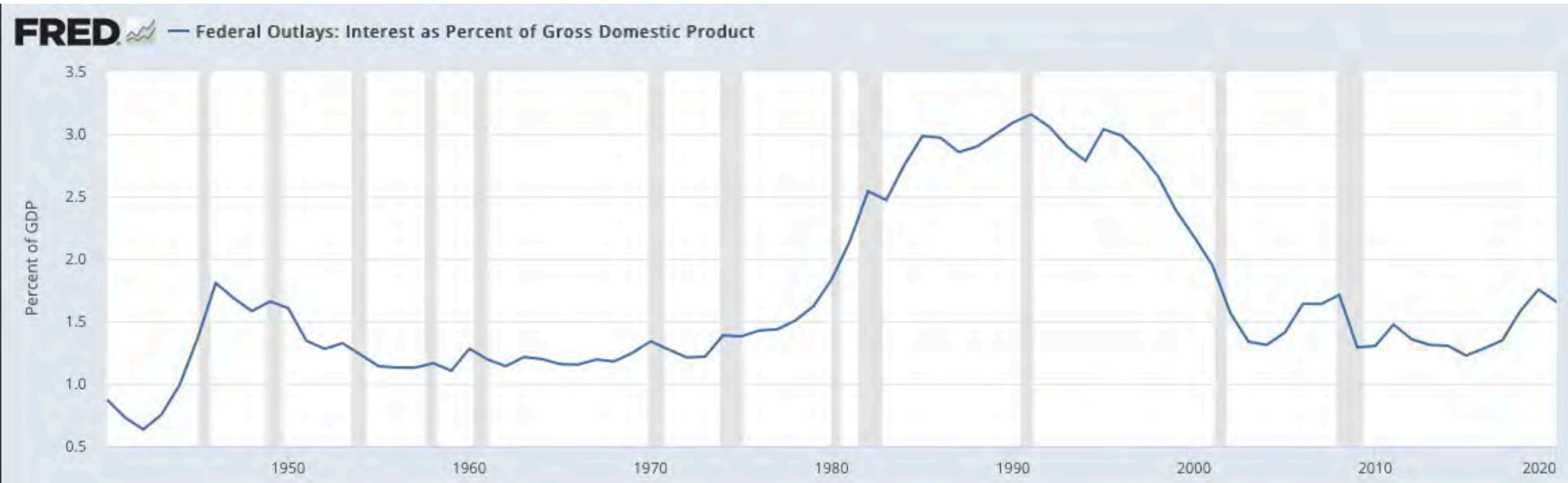
Ten-year Constant Maturity Treasury Rate



Debt as a Percent of GDP



Federal Interest Payments as a Percent of GDP



FED will not have much desire to increase interest rates

Capitalized Value

A very simple (and reasonably accurate) capitalization formula

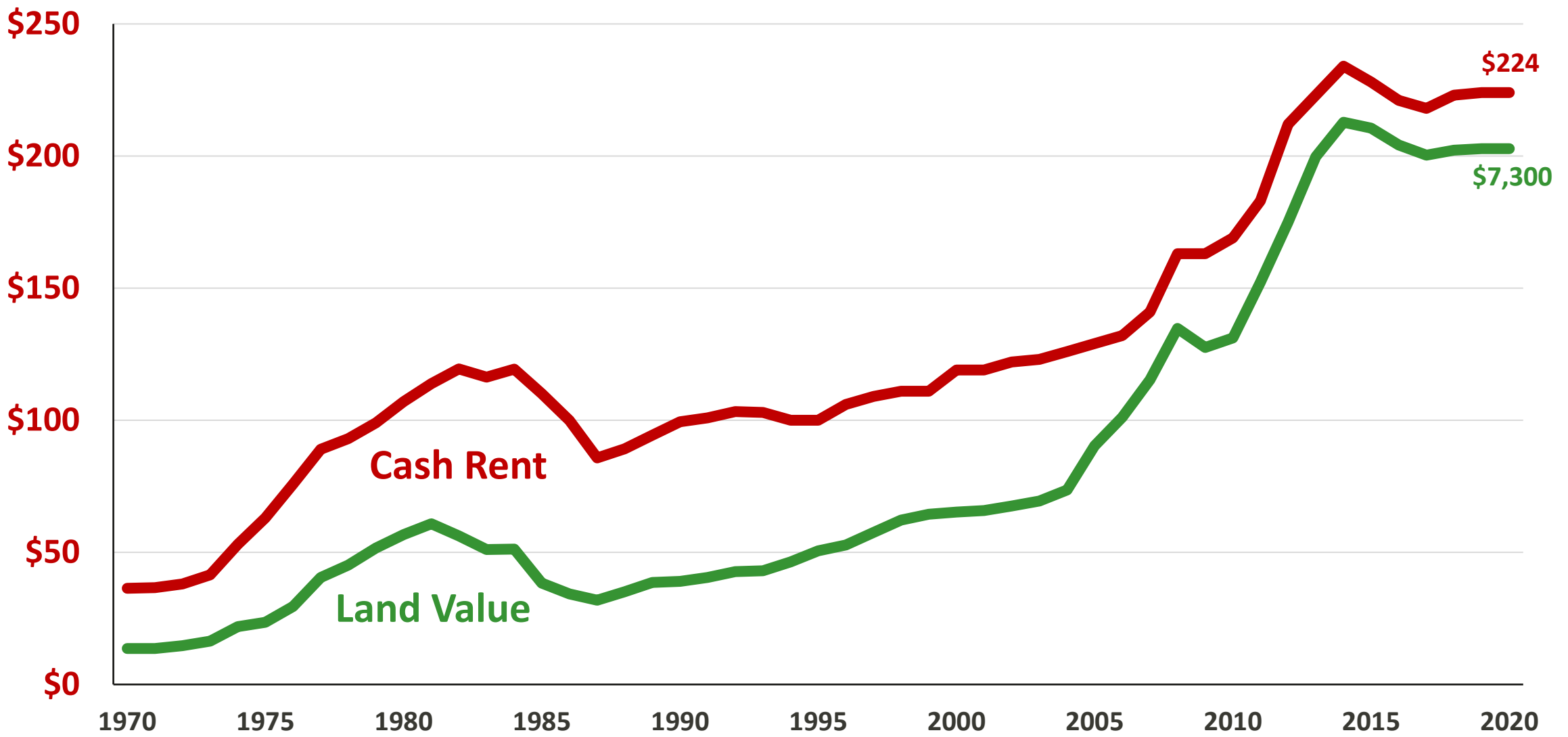
$$\textit{Capitalized Value} = \frac{\textit{Cash Rent}}{\textit{10x - Year CMT Rate}}$$

Cash rent = \$225 per acre

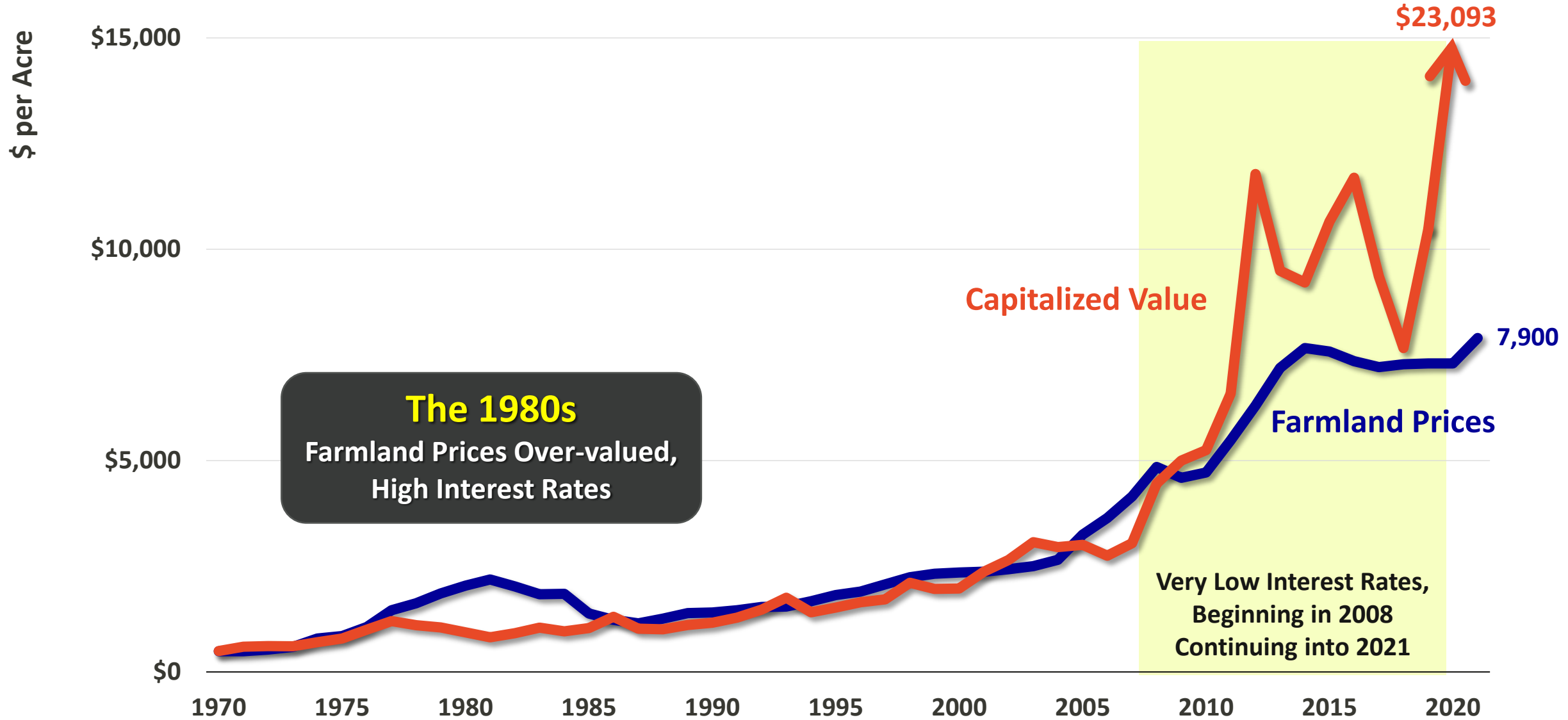
10-Year Rate = 3%

Capitalized value = \$7,500 = \$225 / .03

Cash Rents and Land Values, Illinois (\$ per Acre)



Illinois Farmland Prices and Capitalized Values



Thank you