

I Illinois Farm Economic Summit 2021

Grain Farm Returns for 2021 and 2022



Gary Schnitkey



Krista Swanson



Dale Lattz



Topics

2021 grain farm income

Gary Schnitkey

2022 grain farm income projections

Gary Schnitkey

Cash rents

Dale Lattz

Long-run price and income outlook

Krista Swanson



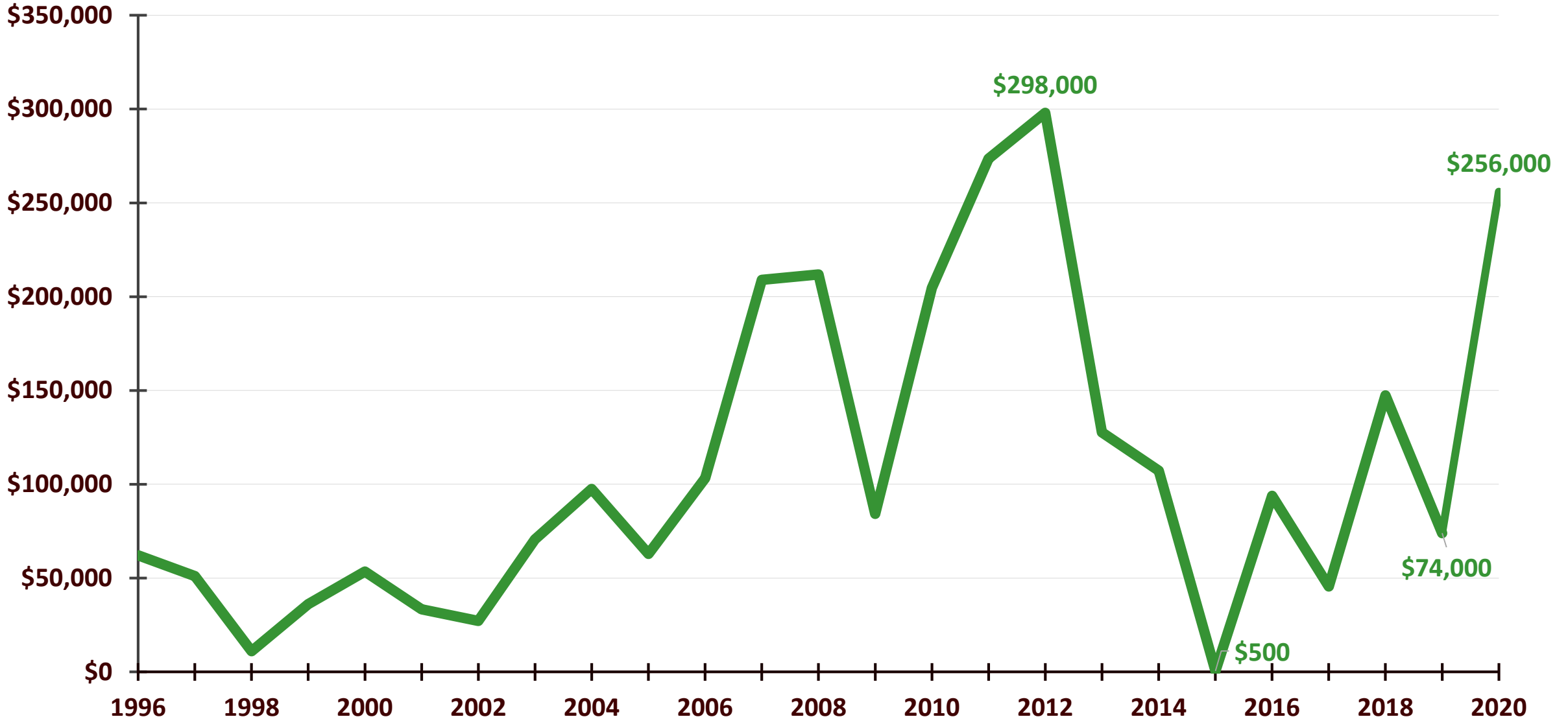
What is your projection of 2021 grain farm income?

- Significantly below average
- Below average
- Near average
- Above average
- Significantly above average

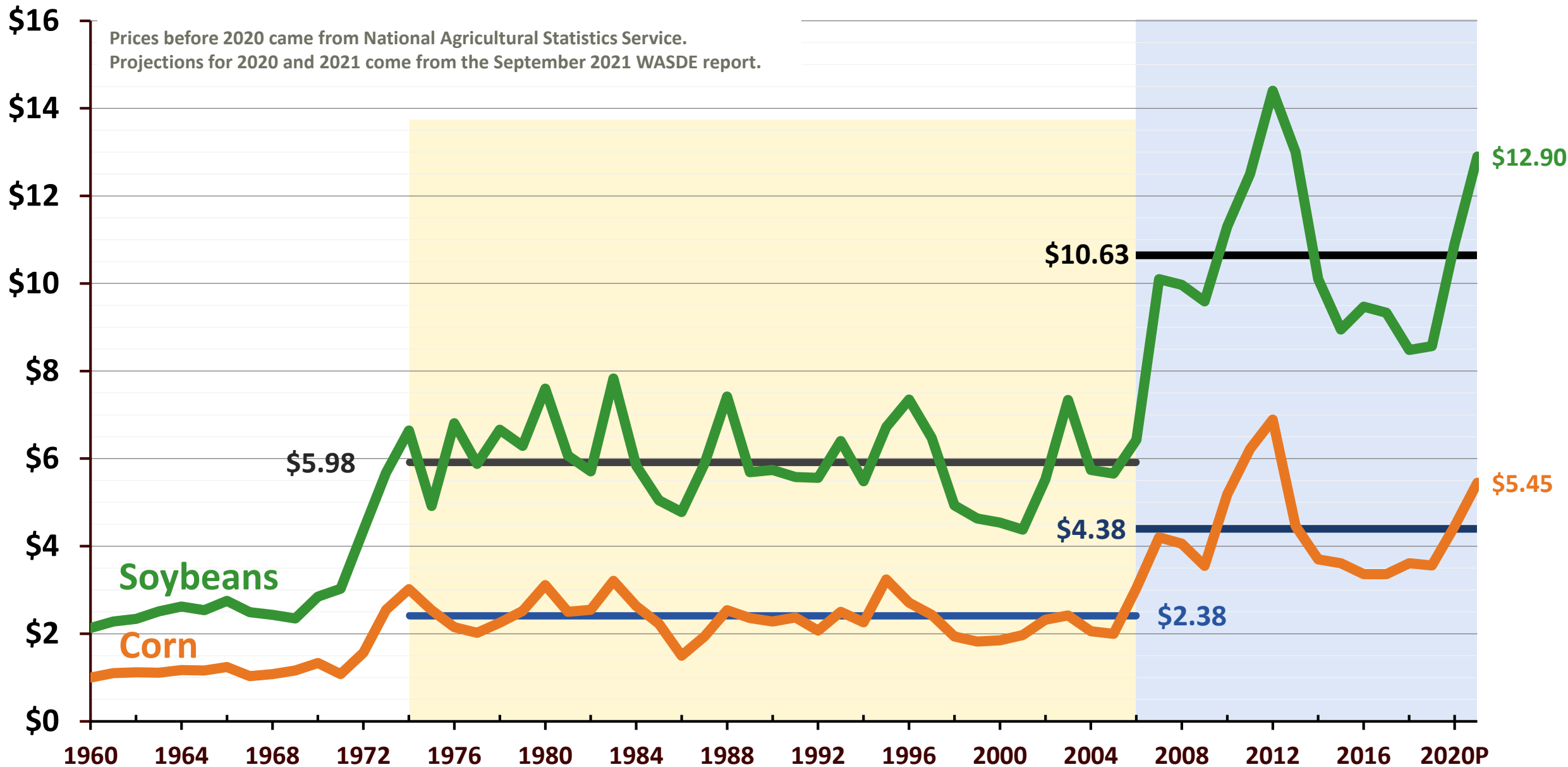
2021 Grain Farm Income



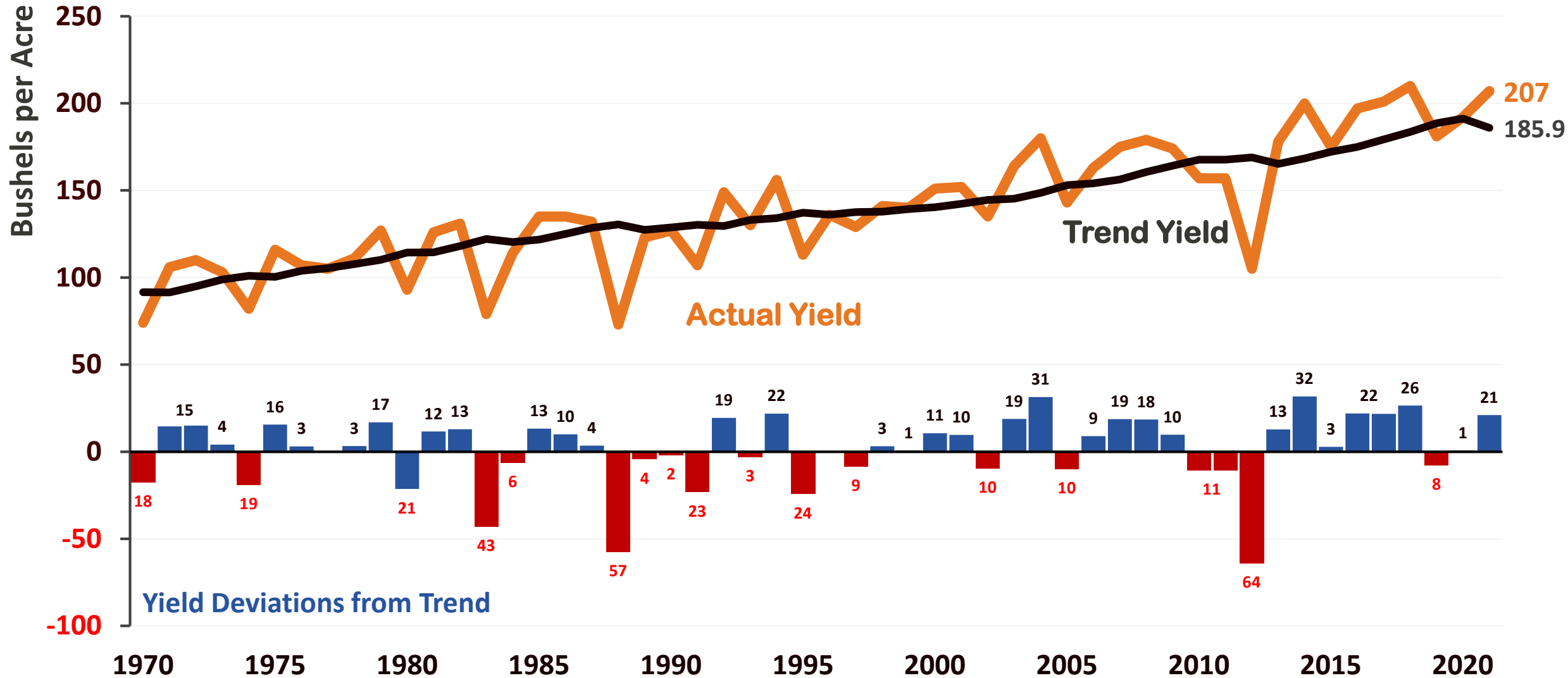
Average Net Incomes of Grain Farms Enrolled in Illinois Farm Business Farm Management (FBFM), 1996 to 2020



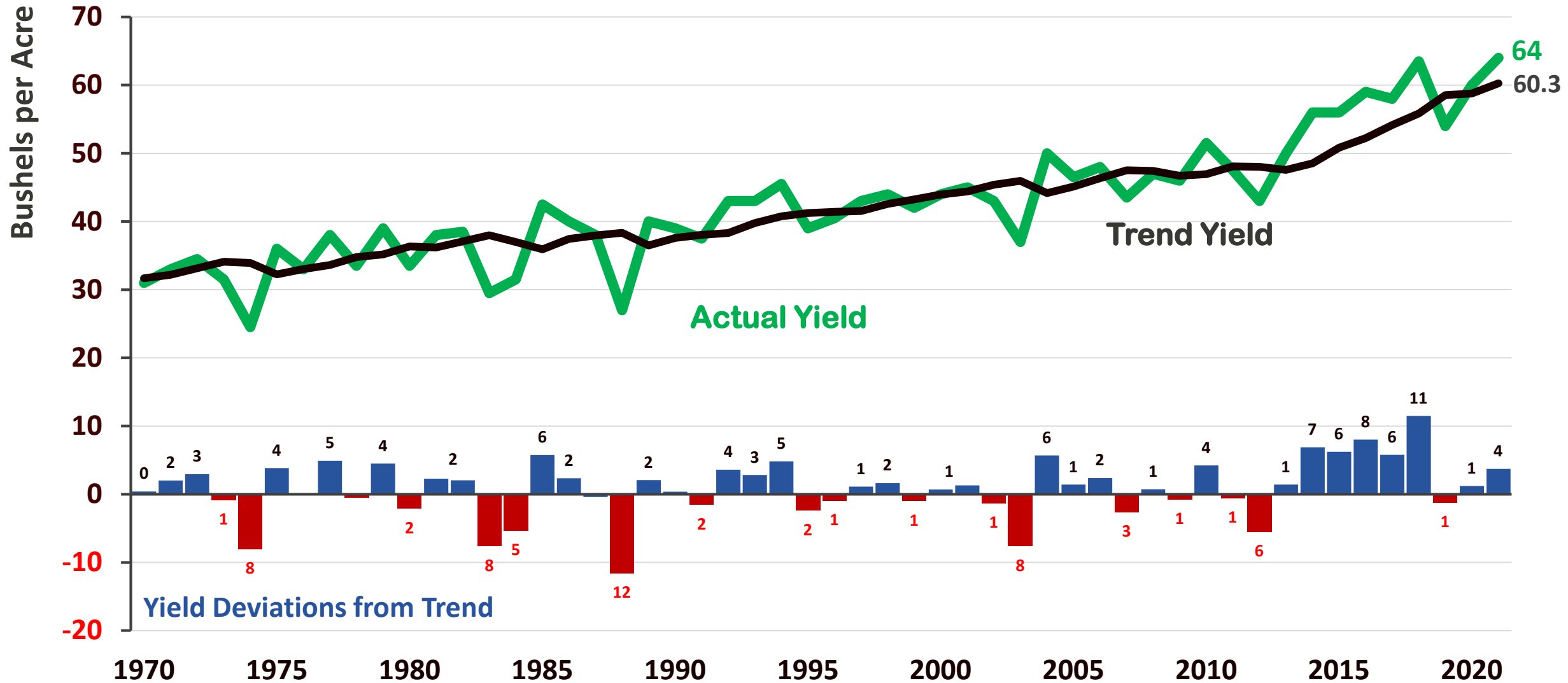
U.S. Market Year Average Prices for Corn and Soybeans 1960 to 2021P



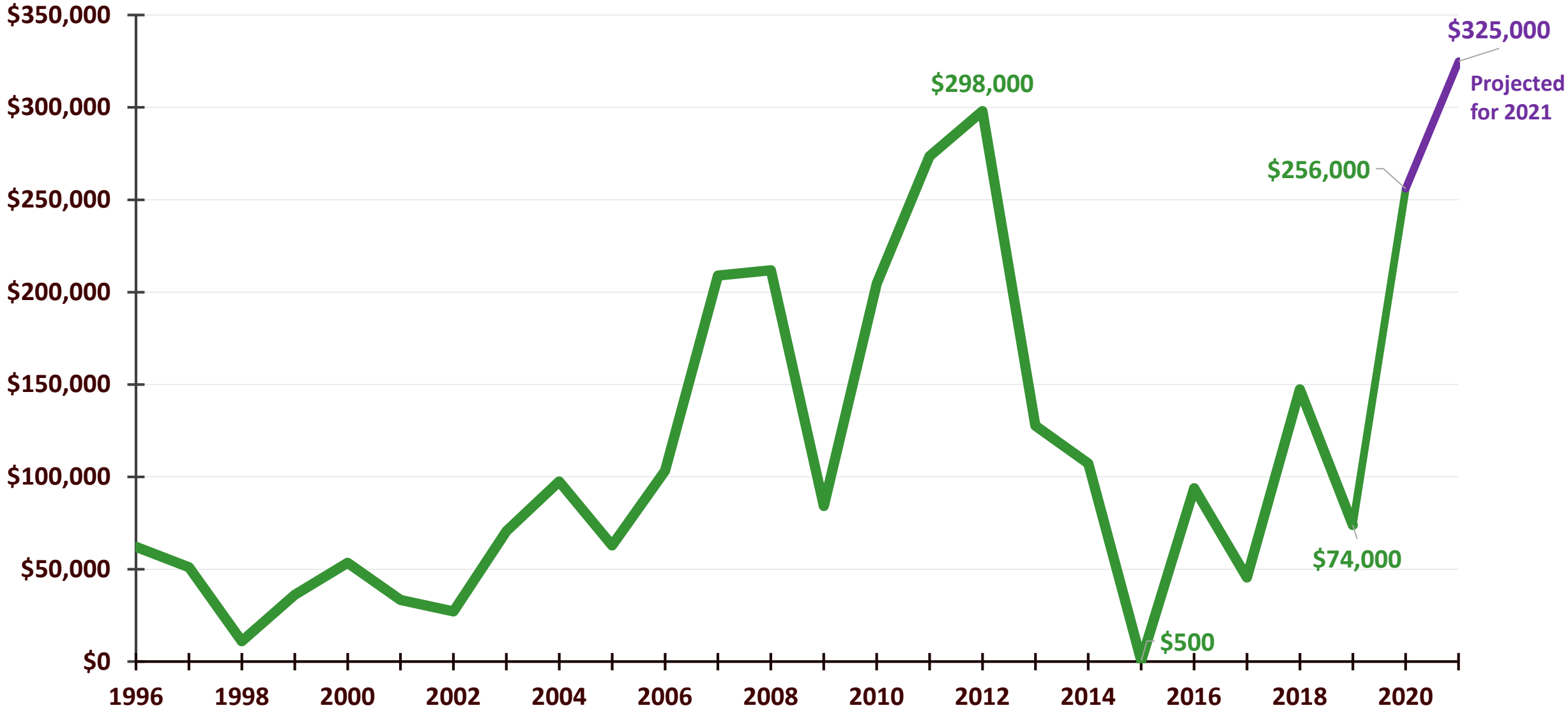
Illinois Corn Yields, 1970 to 2021P



Illinois Soybean Yields, 1970 to 2021P



Average Net Incomes of Grain Farms Enrolled in Illinois Farm Business Farm Management (FBFM), 1996 to 2021P



Price and Cost Outlook for 2022



Current fall 2022 bids for corn are above \$5.00

What will the fall delivery price be with normal crops?

- Below \$4.00
- \$4.00 to \$4.75
- \$4.75 to \$5.25
- \$5.25 to \$5.75
- Over \$5.75

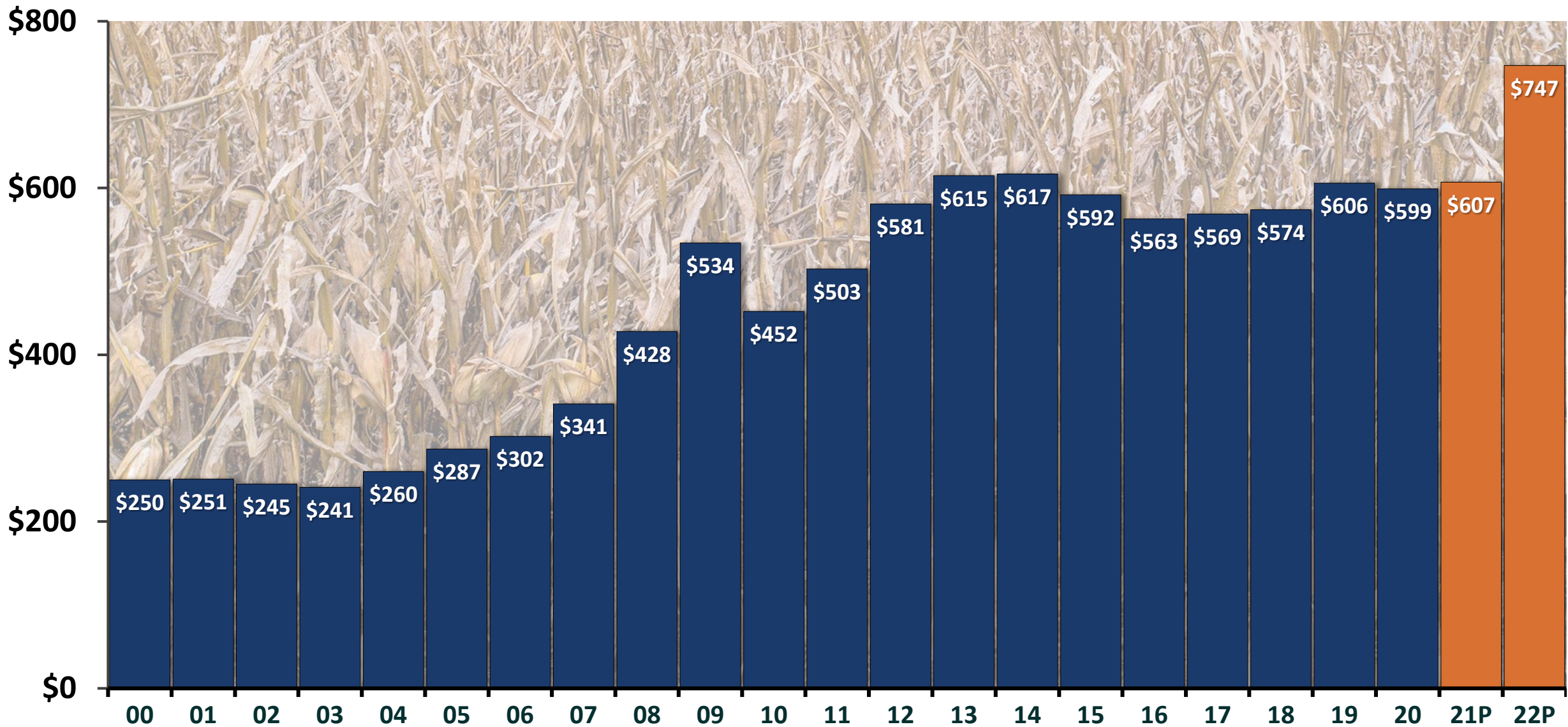


Current fall 2022 bids for soybeans are near \$12.00
What will the fall delivery price be with normal crops?

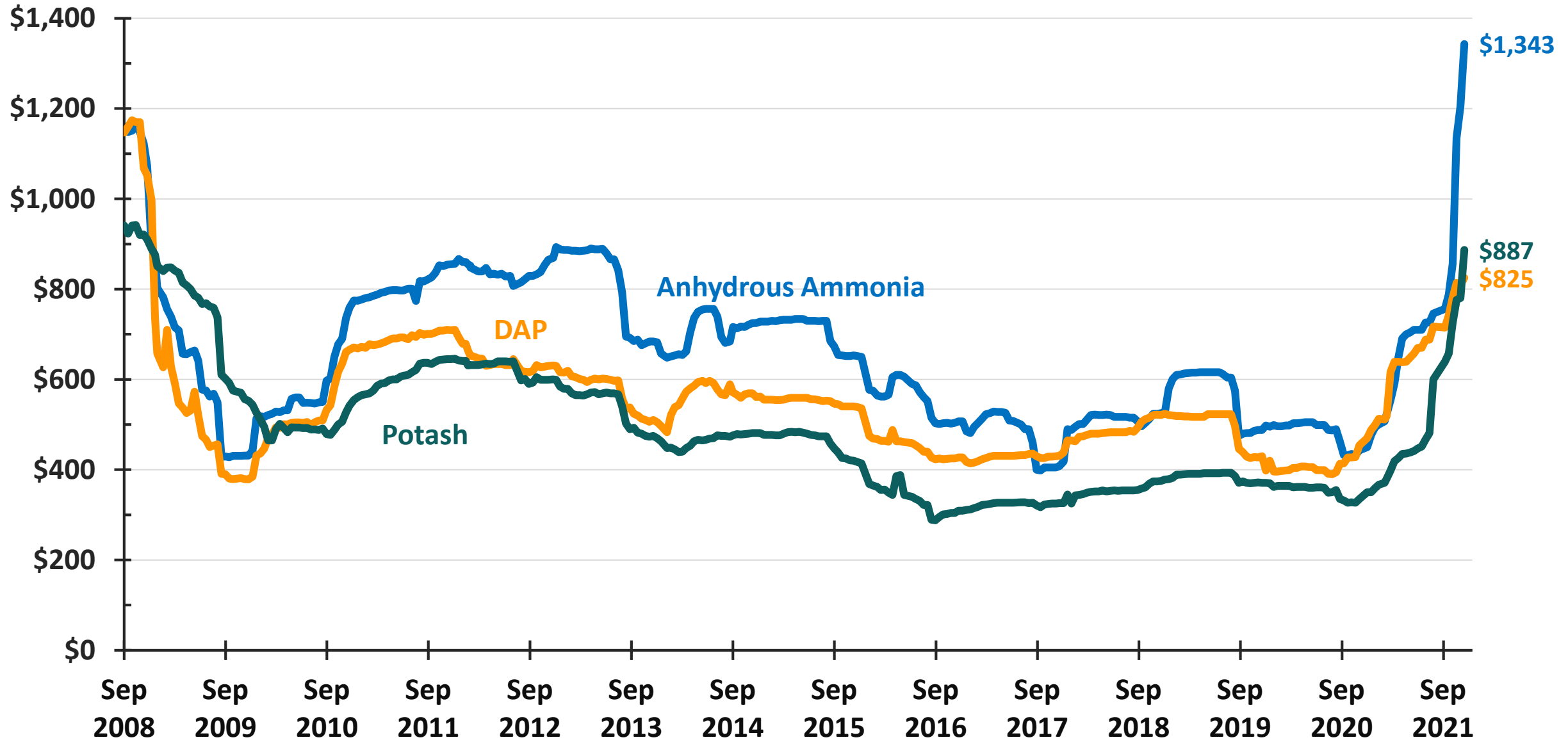
- Below \$10.25
- \$10.25 to \$11.25
- \$11.25 to \$12.25
- \$12.25 to \$13.25
- Over \$13.25



Non-land Cost per Acre to Produce Corn



Fertilizer Prices per Ton in Illinois From 2008 to 2021



Source: US Department of Agriculture, Agricultural Marketing Service

Calculation of Fertilizer Costs, 2021 and 2022

	Rqmts lbs/acre	Prices on 10/22/2020		Prices on 10/21/2021		Change \$/acre
		Prices \$/ton	Costs \$/acre	Prices \$/ton	Costs \$/acre	
Corn						
Anhydrous Ammonia	234/207	\$432	42	\$1,400	\$118	\$76
DAP	177	\$428	38	\$850	\$75	\$37
Potash	88	\$327	14	\$887	\$39	\$25
Total Fertilizer Costs			\$94		\$232	\$138
Soybeans						
DAP	111	\$428	24	\$850	\$47	\$23
Potash	133	\$327	22	\$887	\$59	\$37
Total Fertilizer Costs			\$46		\$106	\$60

See: farmdoc Daily, November 2, 2021

	Corn	Soybeans
Yield per acre	220	68
Price per bu	\$5.00	\$12.00
Gross revenue	\$1,100	\$816
Fertilizers	262	111
Pesticides	66	54
Seed	124	80
Drying	24	2
Storage	15	5
Crop insurance	24	16
Total direct costs	\$515	\$268
Total power costs	\$151	\$117
Total overhead costs	\$81	\$75
Total non-land costs	\$747	\$460
Operator and land return	\$353	\$356
Corn-Minus-Soybean Return	-\$3	

- Above average prices (fall bids)
- Fertilizer prices are at **record levels**
- Touch and go whether corn or soybeans is most profitable

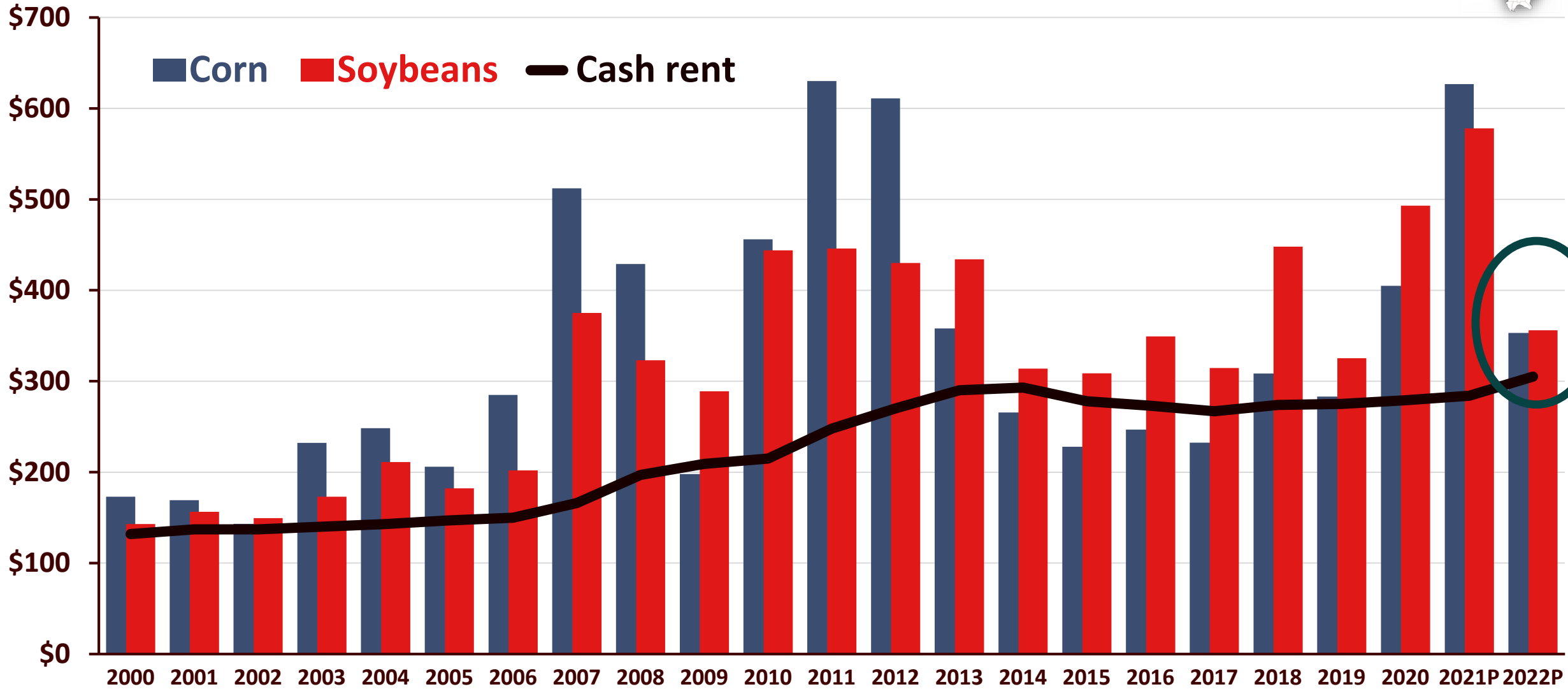
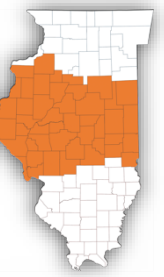
Nitrogen Decisions

- I suspect fertilizer, corn, and soybean prices will be more tightly intertwined than usual
- That relationship could (likely) go away after planting
- If planting more soybeans, price the additional soybeans
- If buying expensive nitrogen, price the corn
- Consider pricing more than usual of 2022 crop (not all of it)

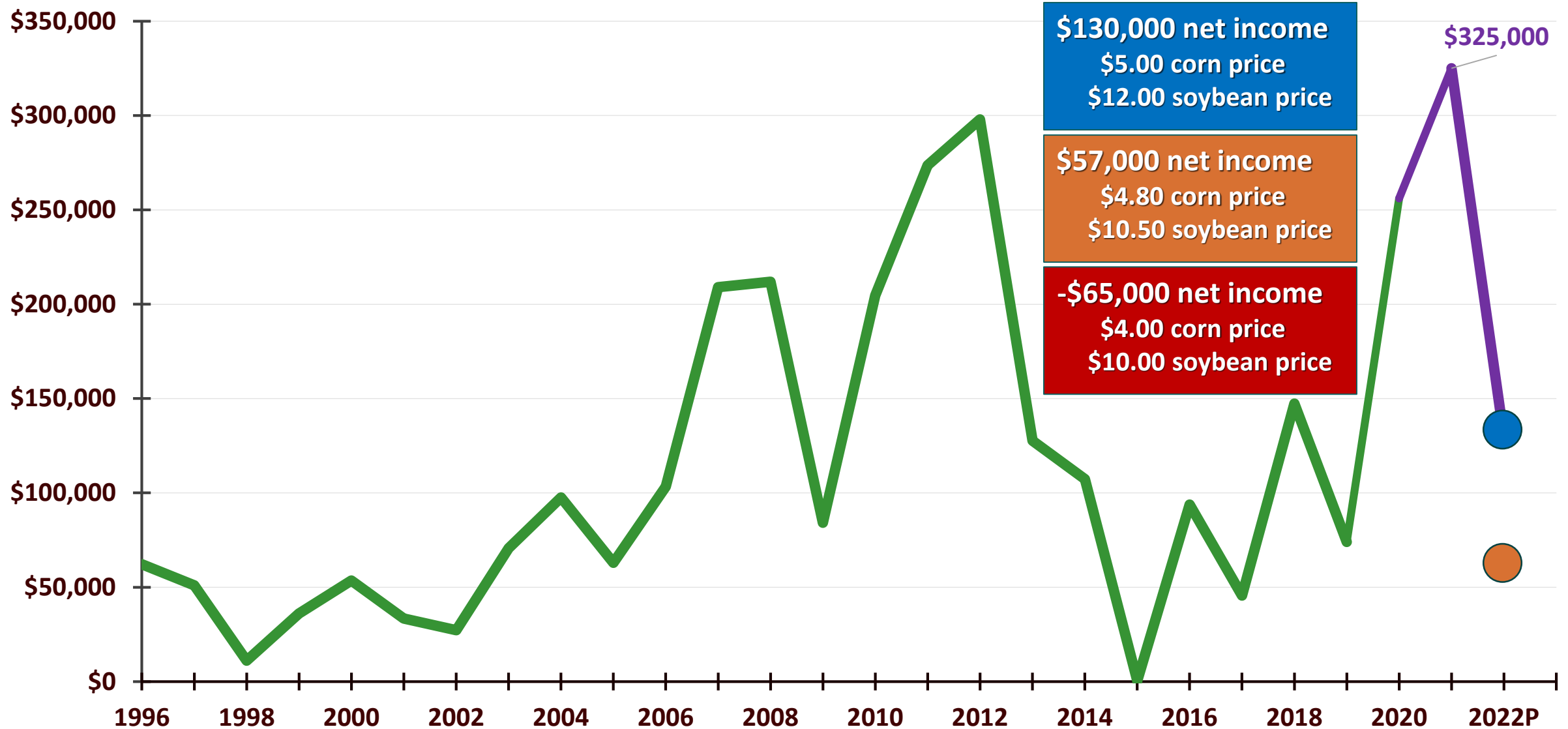
Friday, December 3rd
**Supply Bottlenecks and
Management Decisions**
Gary Schnitkey and Nick Paulson

Operator and Land Returns for Corn and Soybeans

Cash Rents on High-Productivity Farmland in Central Illinois



Average Net Incomes of Grain Farms Enrolled in Illinois Farm Business Farm Management (FBFM), 1996 to 2022P



Summary

- Incomes likely at record levels in 2021
- At current 2022 fall bids (>\$5 for corn, >\$12 for soybeans), 2022 incomes would be down from 2021 at trend yields
- Corn and soybeans have about the same relative profitability (hedge more than usual)
- Think about the corn and soybean decision in a longer-run context (i.e., soybeans may have more demand growth)

Cash Rents

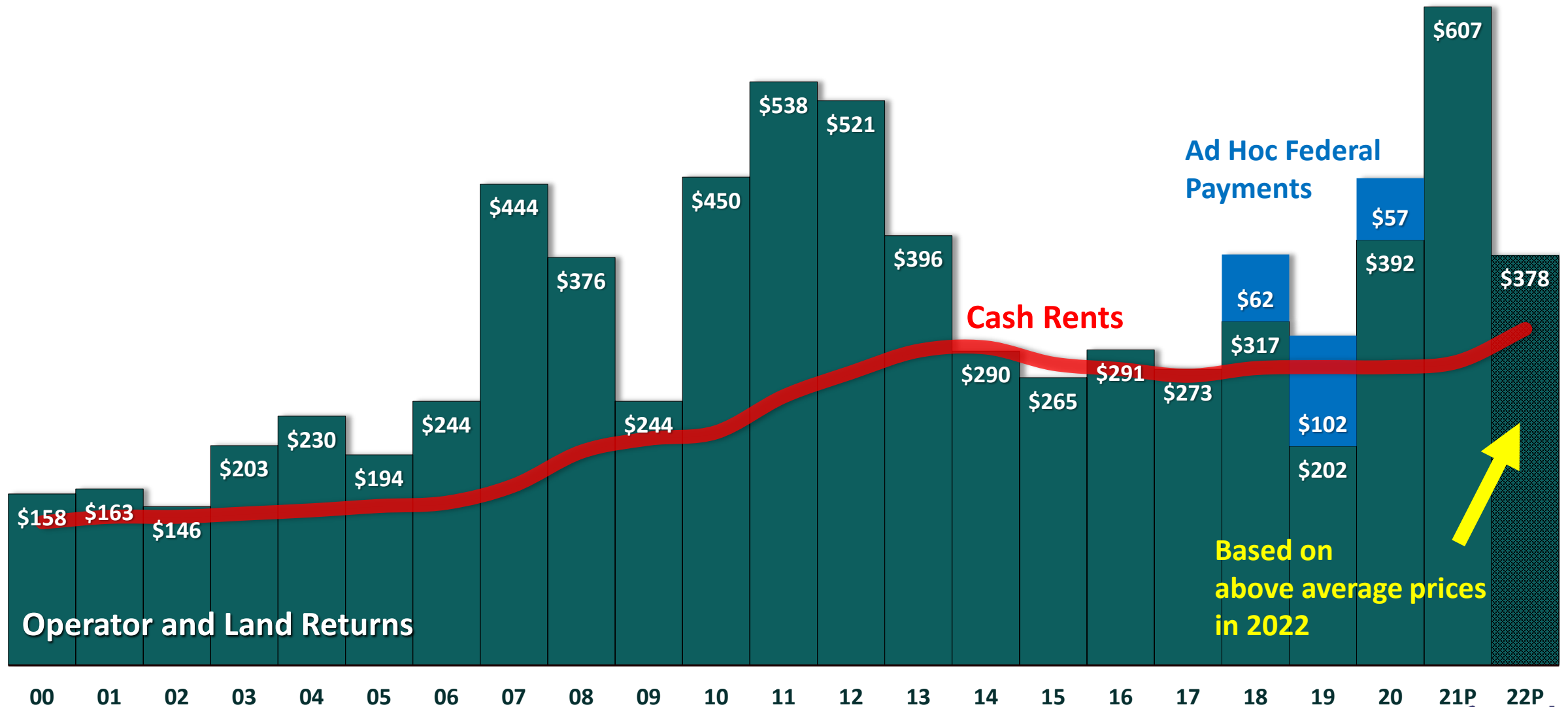
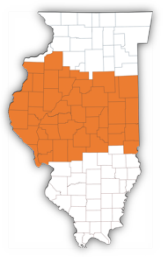


How much do average cash rents change up in 2022?

- Decrease
- Stay the same
- Up \$0 to \$10 per acre
- Up \$10 to \$20 per acre
- Up over \$20 per acre

Operator and Land Returns and Cash Rents

High-Productivity Farmland in Central Illinois, 2000 to 2021P

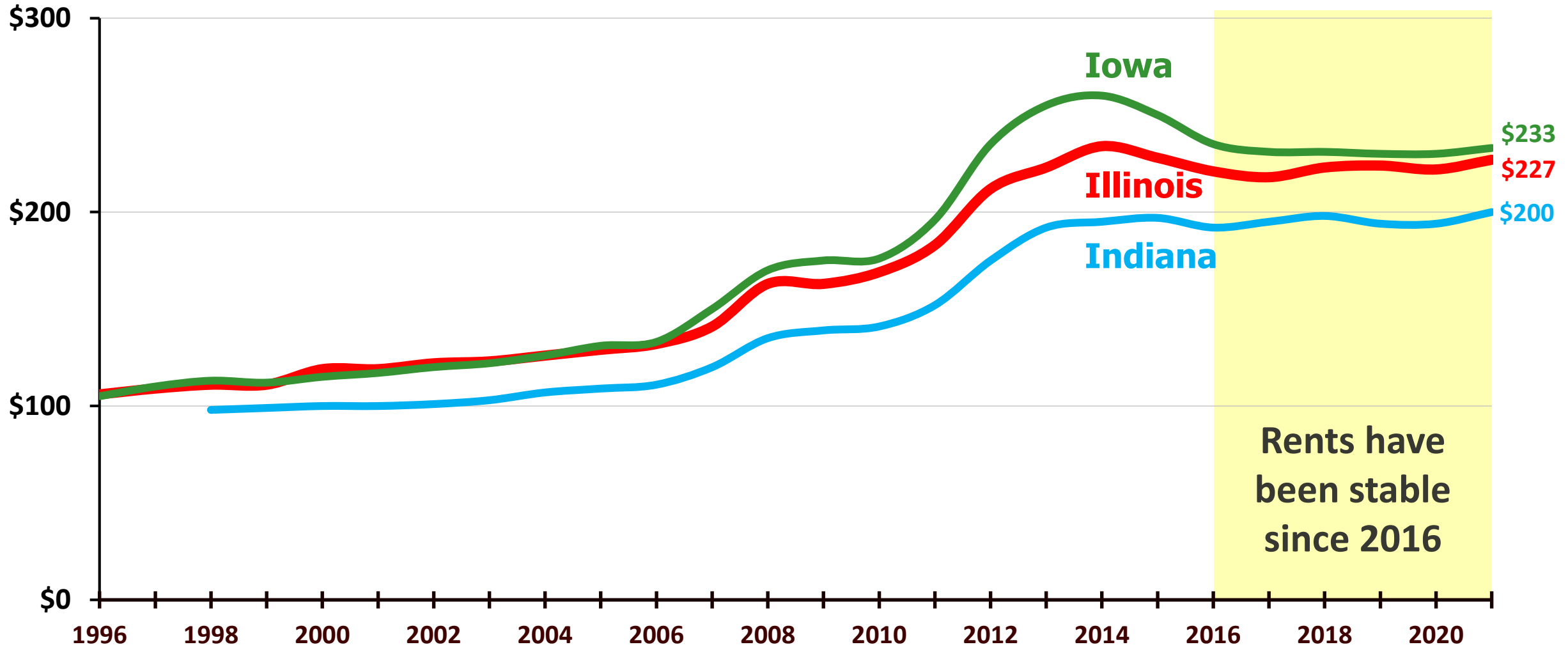


Ad Hoc Federal Payments

Cash Rents

Based on above average prices in 2022

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



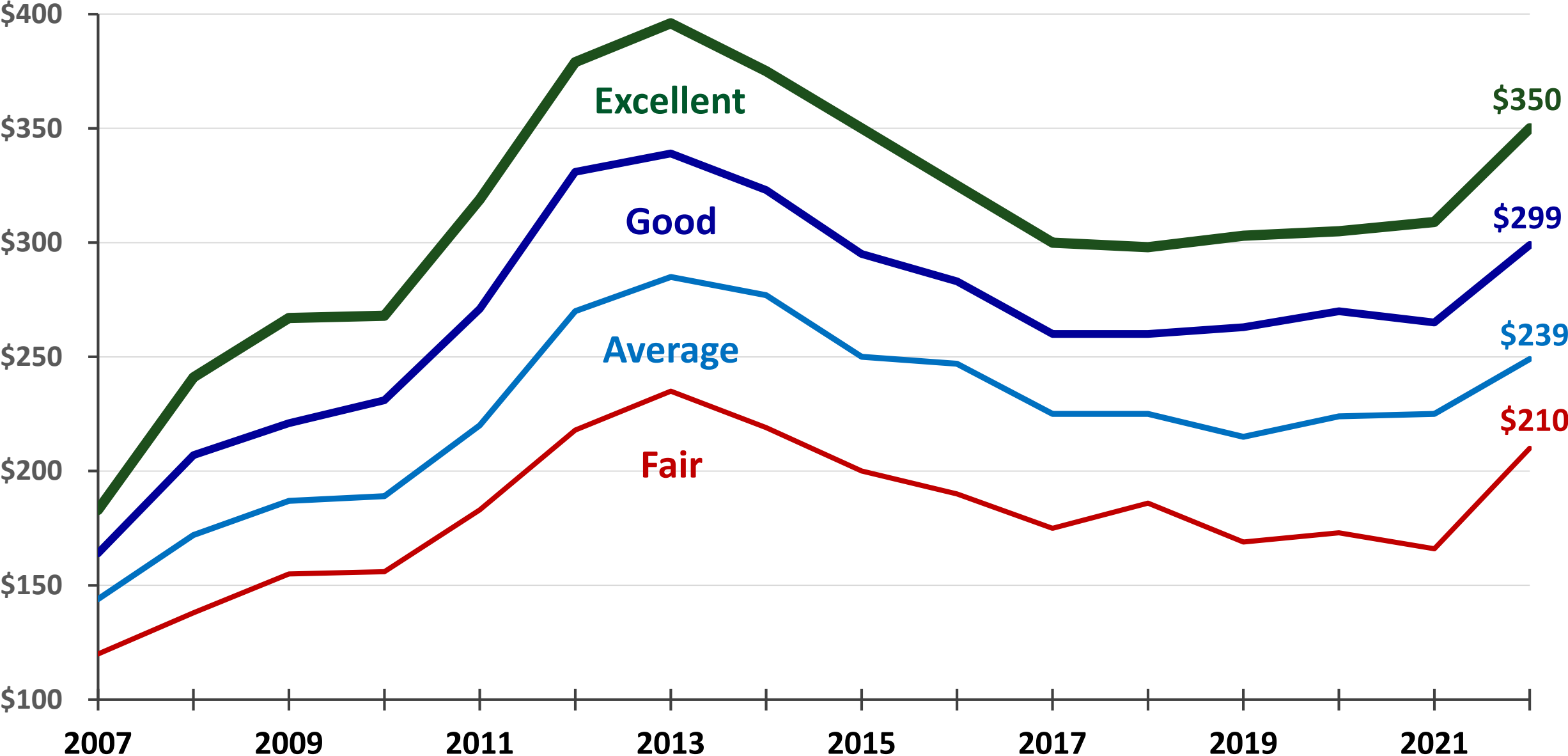
Source: National Agricultural Statistical Service

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

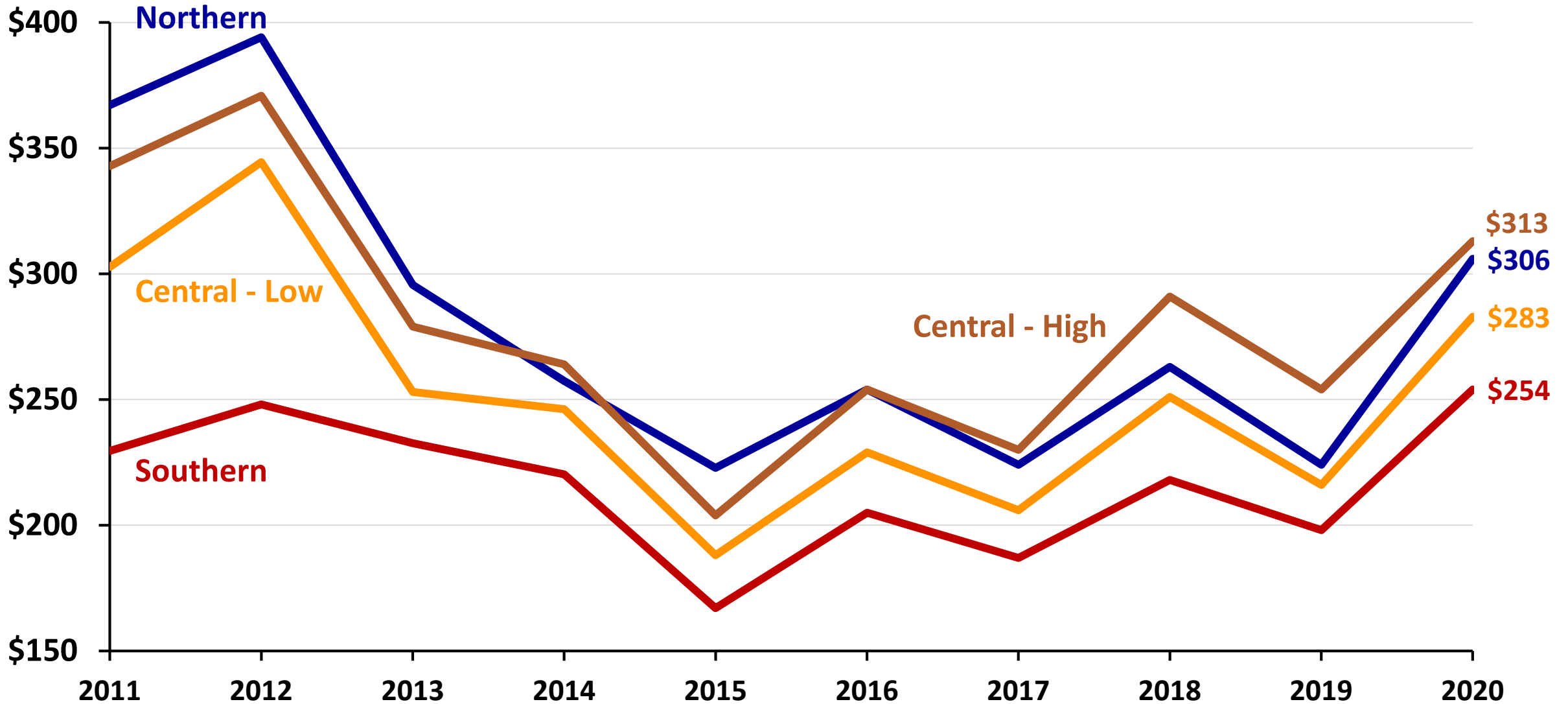
**Cash Rents
from survey
\$ per acre**

Historic Cash Rents from Survey in Dollars per Acre

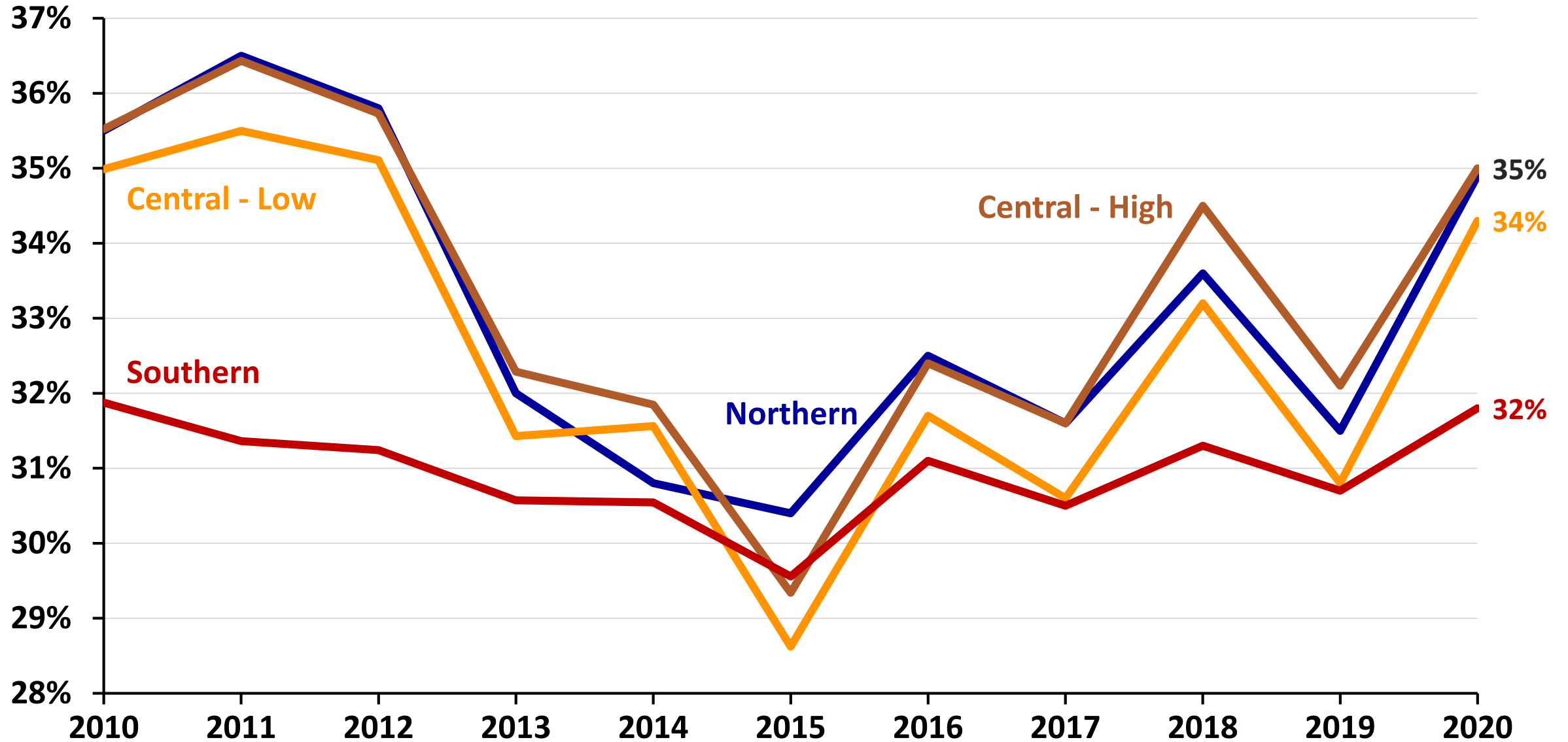


Landlord's Adjusted Net-Share Rent from Crop Share Leases

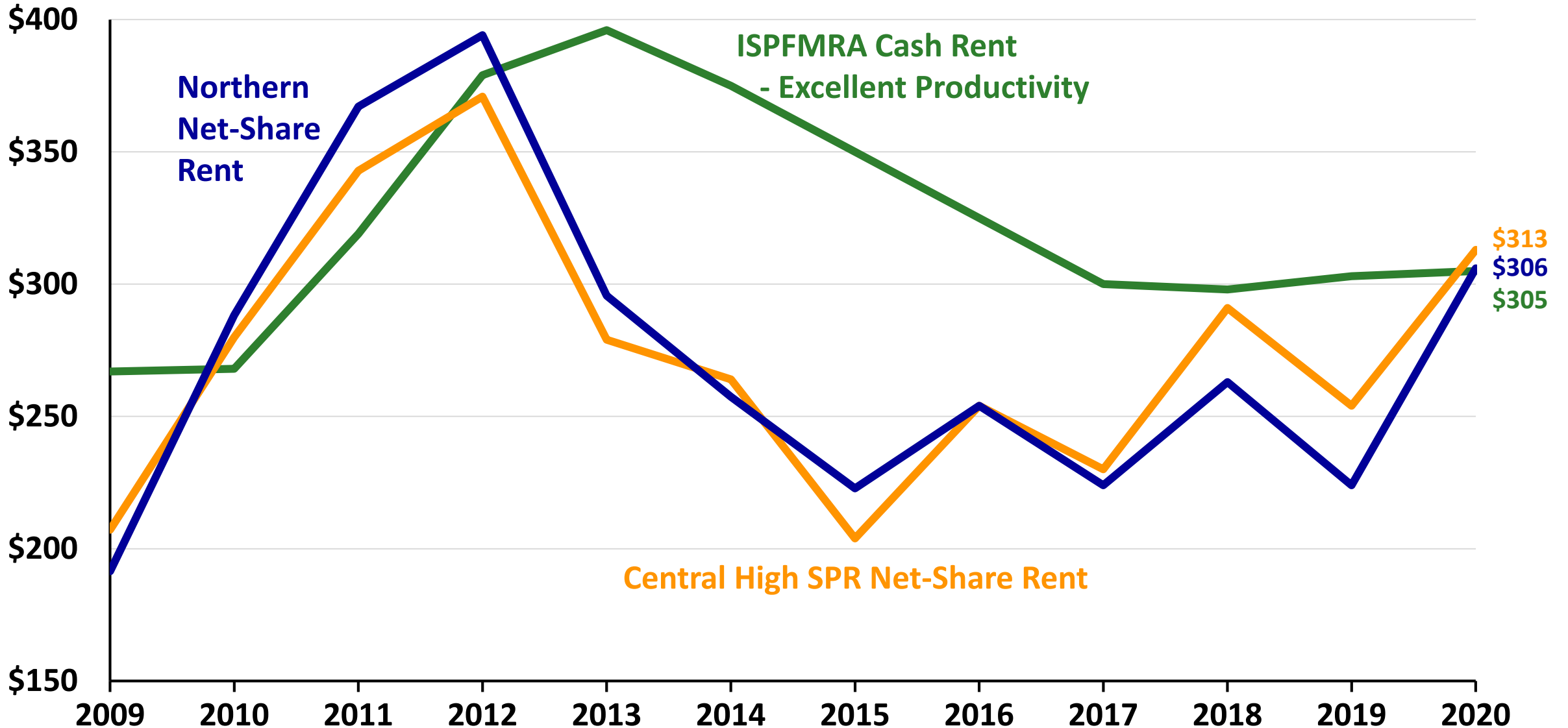
FBFM Pure Grain Farms



Net-Share Rent as a % of Crop Returns



Cash Rent Compared to Landlord's Adjusted Net-Share Rent



Summary

- After 4-5 years of steady cash rents, higher farm incomes pushing cash rents higher
- Rents on flexible leases began increasing in 2020
- Fixed cash rents lagged, some increases in 2021, larger increases in 2022.

Summary

- Farmers with fixed cash rents may want to consider a bonus payment for 2022
- Fixed cash rents go down slower than they go up
- Continue to review terms of variable cash rents as farm input costs increase

Long-Run Price and Income Outlook



Five-years from now, will corn prices average?

- Below \$4.00
- \$4.00 to \$4.75
- \$4.75 to \$5.25
- \$5.25 to \$5.75
- Over \$5.75

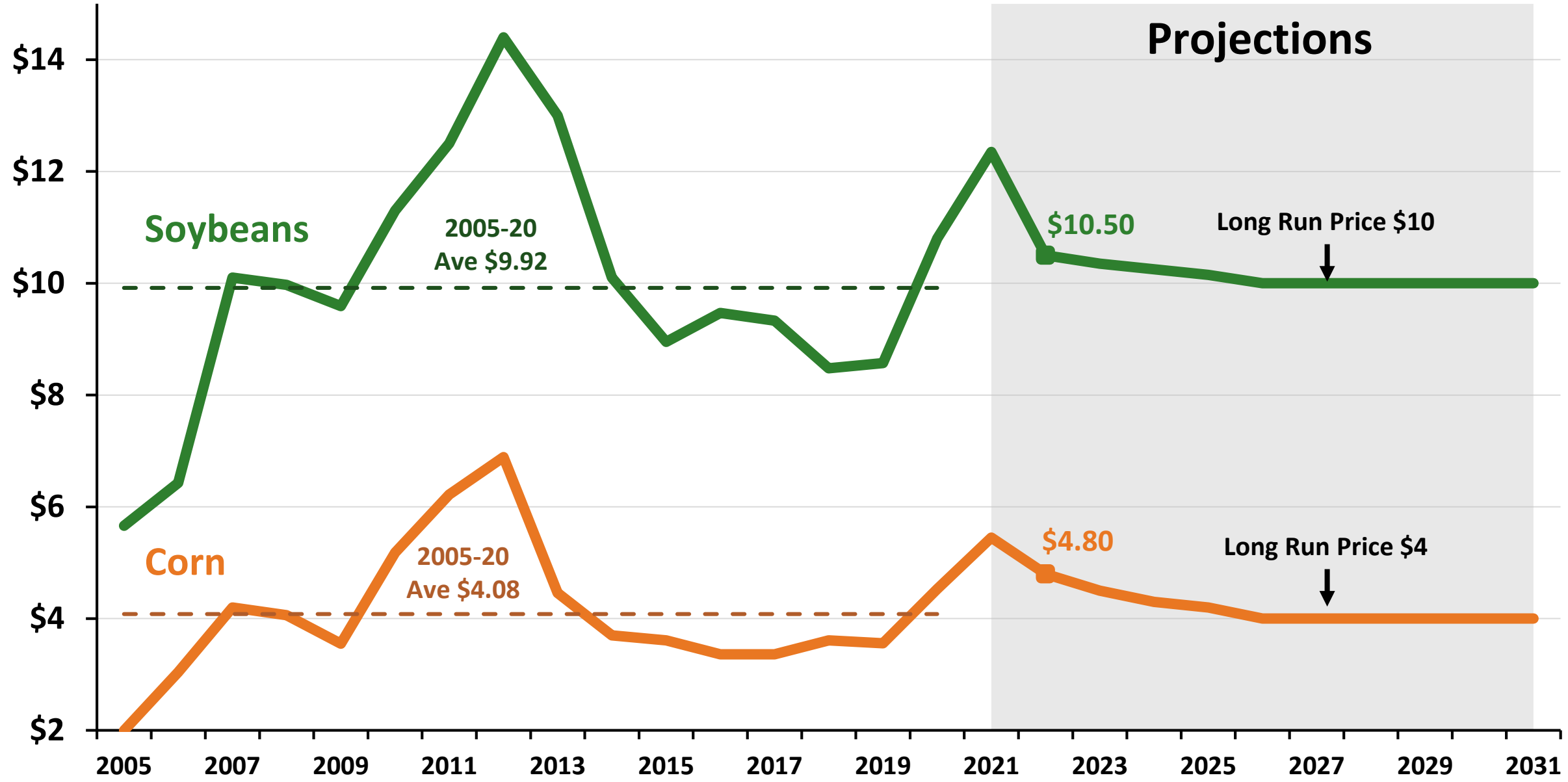


Five-years from now, will soybean prices average?

- Below \$10.25
- \$10.25 to \$11.25
- \$11.25 to \$12.25
- \$12.25 to \$13.25
- Over \$13.25

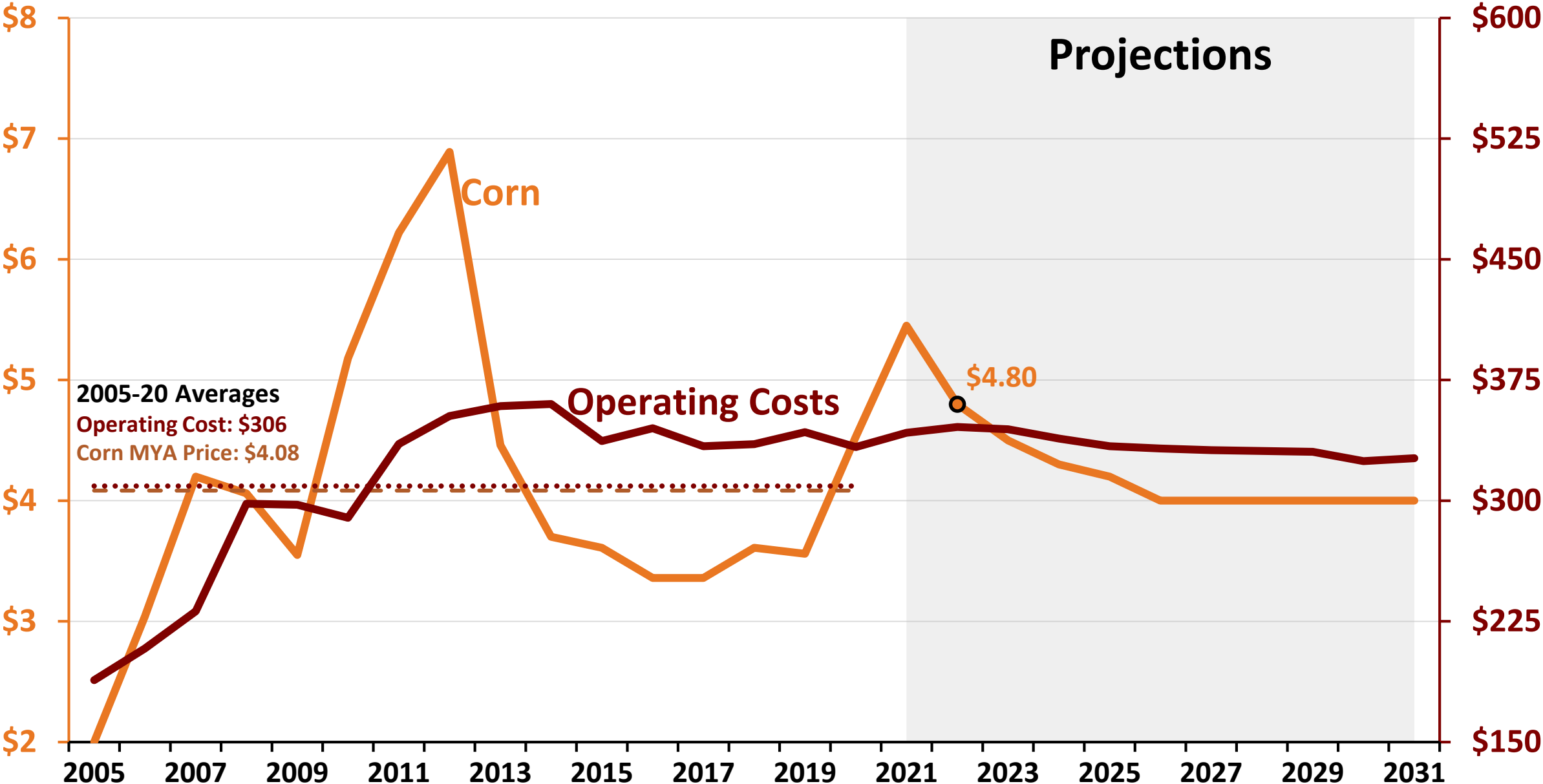


Historic & Projected Market Year Average Prices for Corn & Soybeans



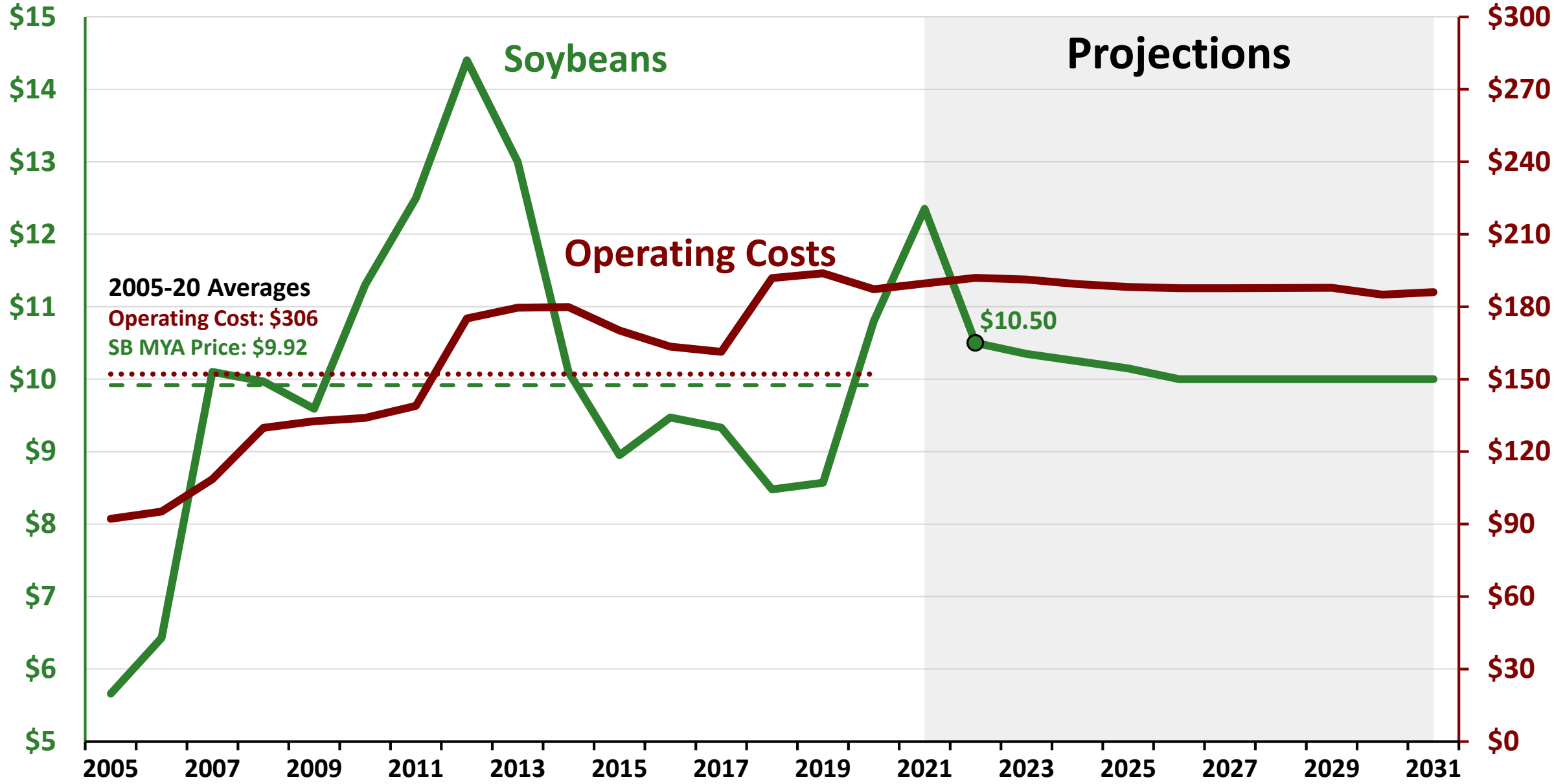
Data Source: USDA ERS Commodity Costs and Returns and USDA Long-Term Agricultural Baseline Projections (Nov. 2021)

Historic & Projected Market Year Average Prices & Operating Costs for Corn



Data Source: USDA ERS Commodity Costs and Returns and USDA Long-Term Agricultural Baseline Projections (Nov. 2021)

Historic & Projected Market Year Ave Prices & Operating Costs for Soybeans



Data Source: USDA ERS Commodity Costs and Returns and USDA Long-Term Agricultural Baseline Projections (Nov. 2021)

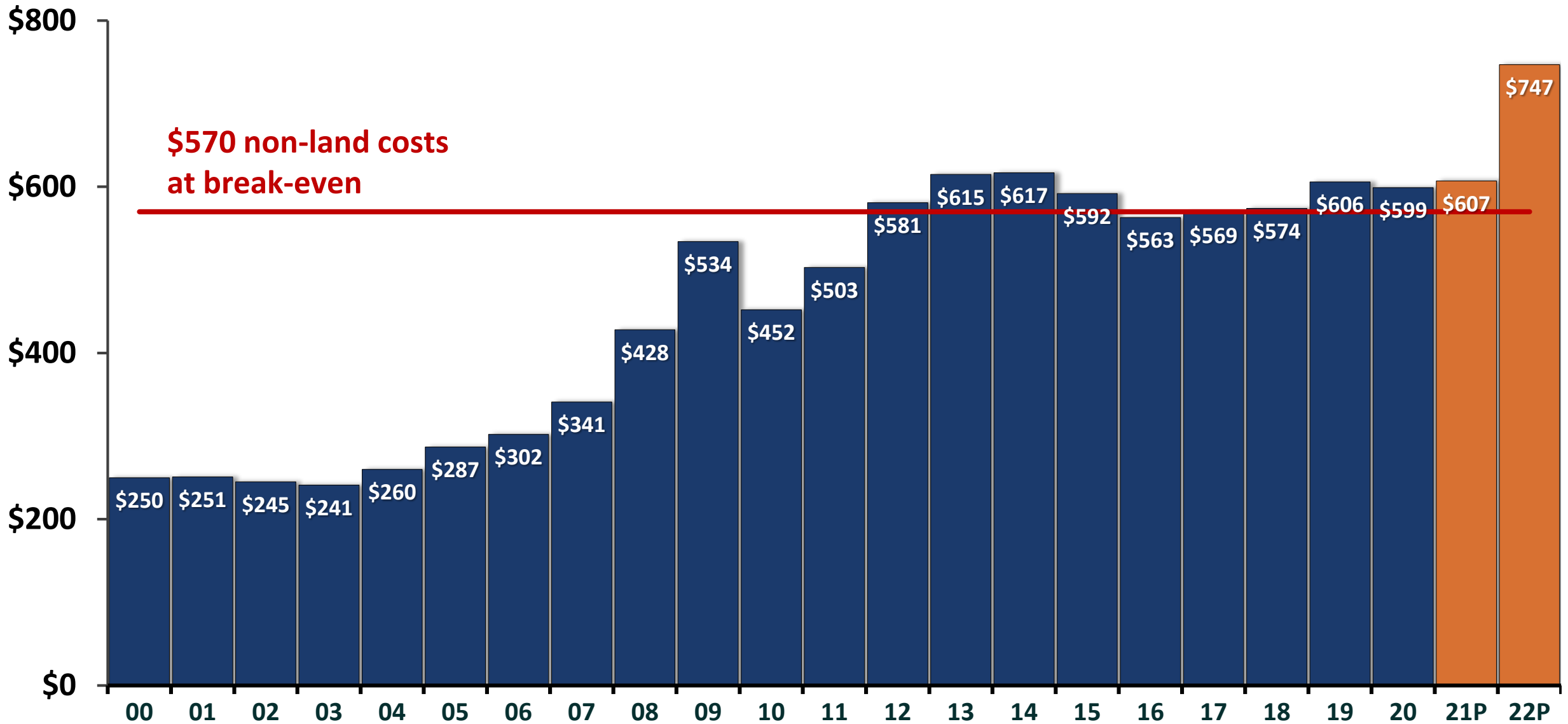
Relative Prices & Costs

- Long run projected prices equal 2005-20 historic average for corn and soybeans
- Long run projected costs are greater than 2005-20 historic average for corn and soybeans
- What does this mean for income?

2022 Long-Run Farm Income Scenarios

	Central-High Corn Budget as Template				Central-High Soybean Budget as Template			
		Historic Price	Historic Cost	Breakeven Cost		Historic Price	Historic Cost	Breakeven Cost
Yield	220	220	220	220	68	68	68	68
Price	\$5	\$4	\$4	\$4	\$12	\$10	\$10	\$10
Revenue	\$1,100	\$880	\$880	\$880	\$816	\$680	\$680	\$680
Variable Costs	615	\$615	\$408	\$427	338	\$338	\$224	252
Other Costs	143	\$143	\$143	\$143	118	\$118	\$118	118
Total Non Land Costs	758	\$758	\$551	\$570	456	\$456	\$342	370
Operator & Land Return	\$342	\$122	\$329	\$310	\$360	\$224	\$338	\$310
Cash rent	\$310	\$310	\$310	\$310	\$310	\$310	\$310	\$310
Farmer Return Rented	\$32	-\$188	\$19	\$0	\$50	-\$86	\$28	\$0

Non-land Cost per Acre to Produce Corn



Summary

- Increase in income in 2021 due to highest price levels since 2012 and above trend yields
- Higher costs and expected lower prices in 2022 result in downward pressure on net income with trend yields
- Higher 2021 incomes likely to push 2022 cash rents up, but 2022 projected incomes not as strong
- Long-term profitability a challenge if prices return to historic averages and production costs and cash rents do not decline

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Monday, November 29th
Grain Market Outlook for 2022
Scott Irwin and Joe Janzen

Wednesday, December 1st
Farm Income Outlook for 2022
Gary Schnitkey, Dale Lattz, and Krista Swanson

Friday, December 3rd
Supply Bottlenecks and Management Decisions
Gary Schnitkey and Nick Paulson

Monday, December 6th
Farmland Values and Rental Rates for 2022
Bruce Sherrick

Friday, December 10th
Policy Update for 2022
Nick Paulson, Krista Swanson and Jonathan Coppess

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November 30, 2021
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