

I Illinois Farm Economic Summit 2021

Grain Farm Returns for 2021 and 2022



Gary Schnitkey



Krista Swanson



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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



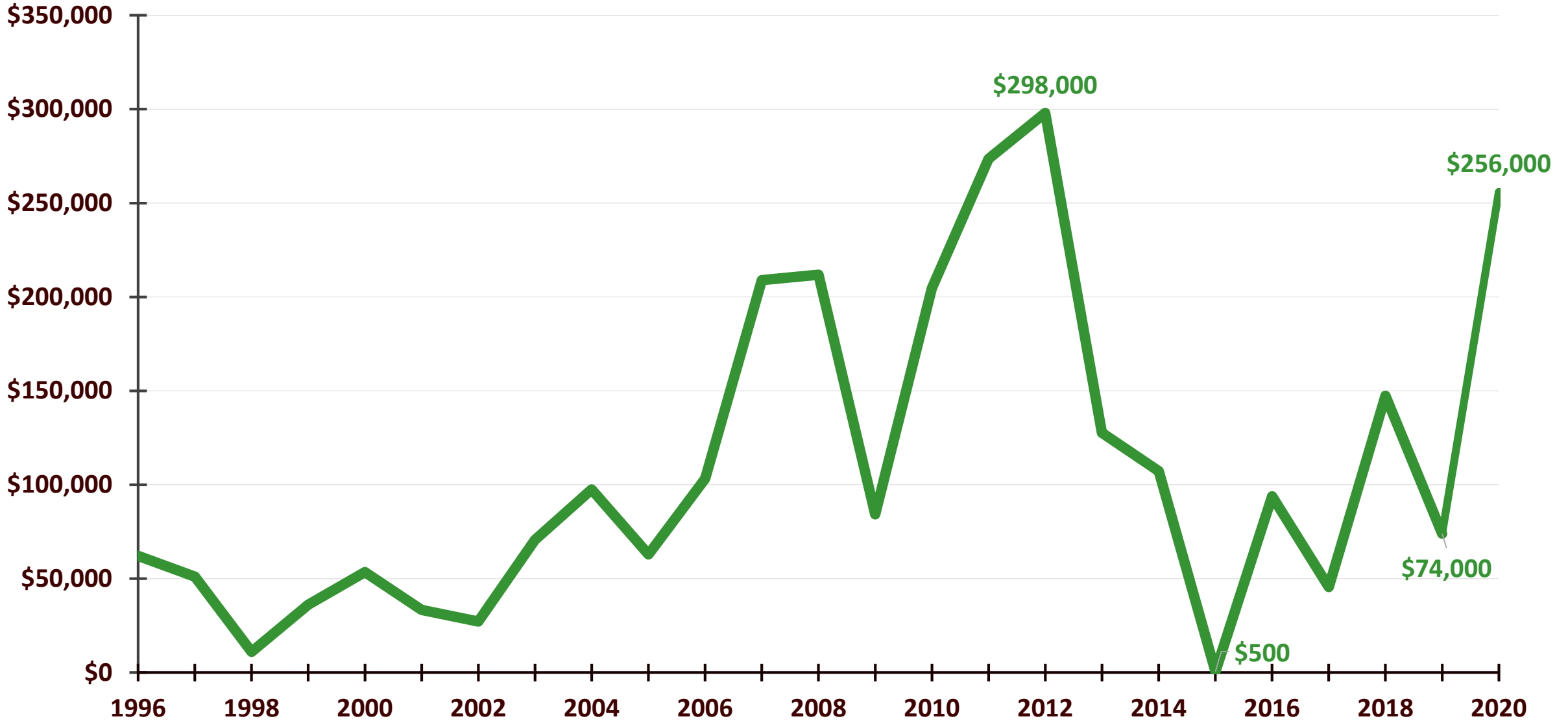
What is your projection of 2021 grain farm income?

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

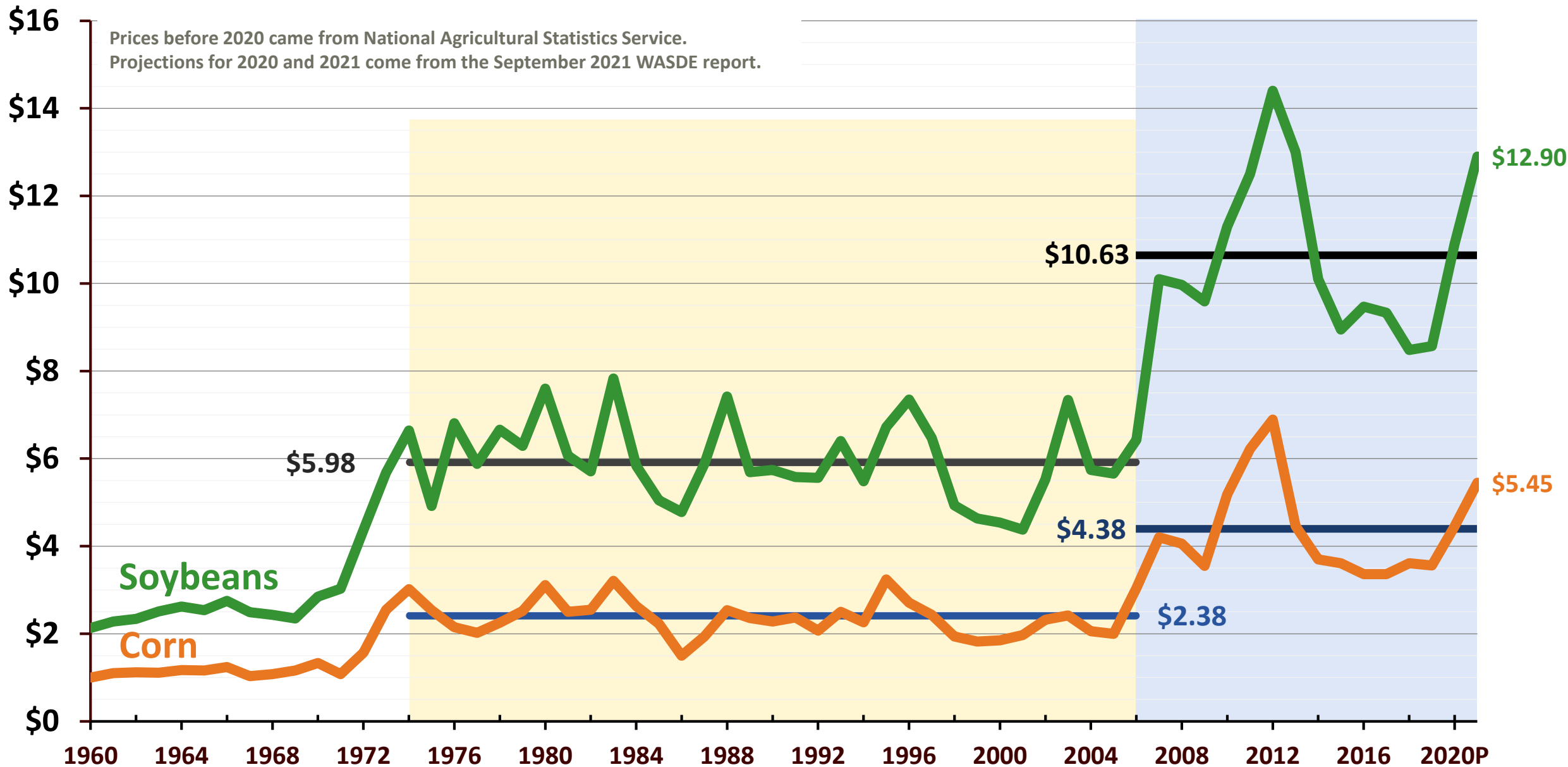
2021 Grain Farm Income



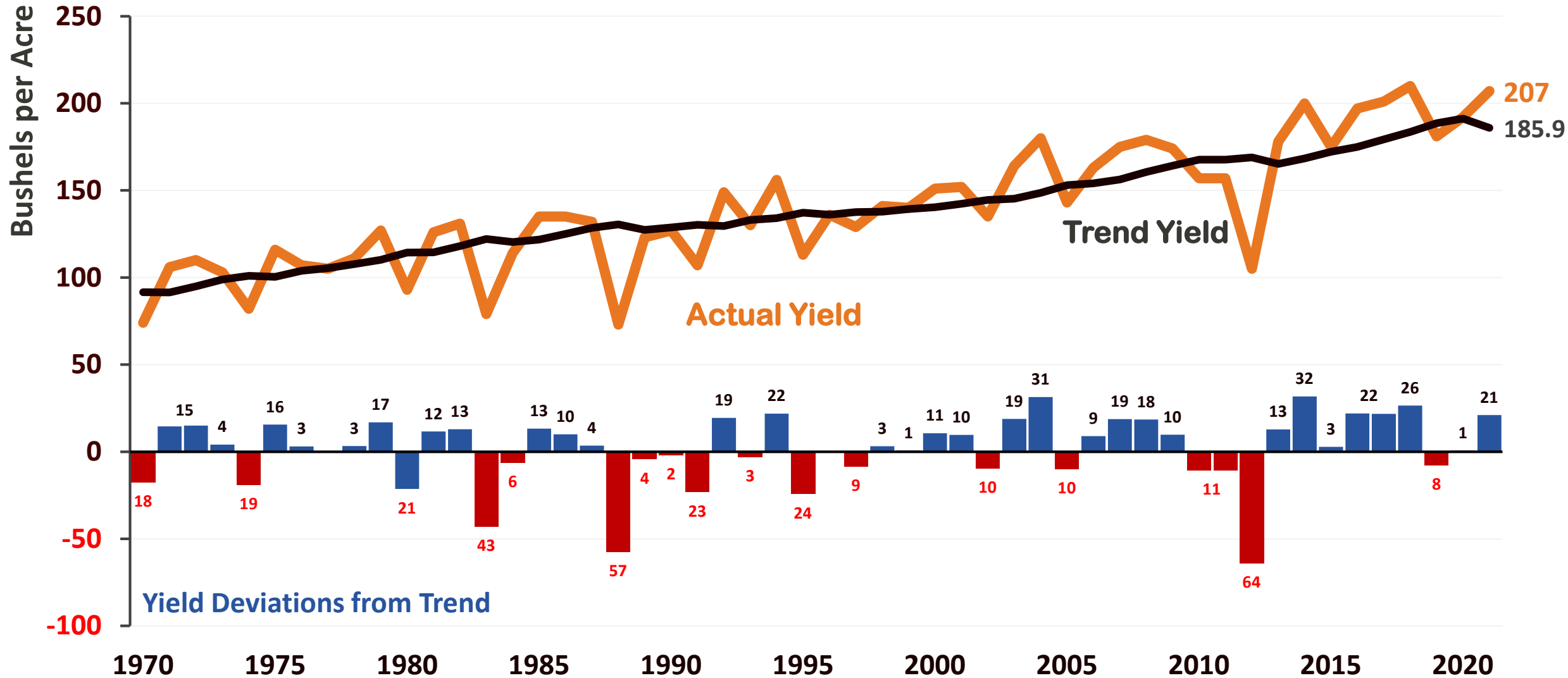
Average Net Incomes of Grain Farms Enrolled in Illinois Farm Business Farm Management (FBFM), 1996 to 2020



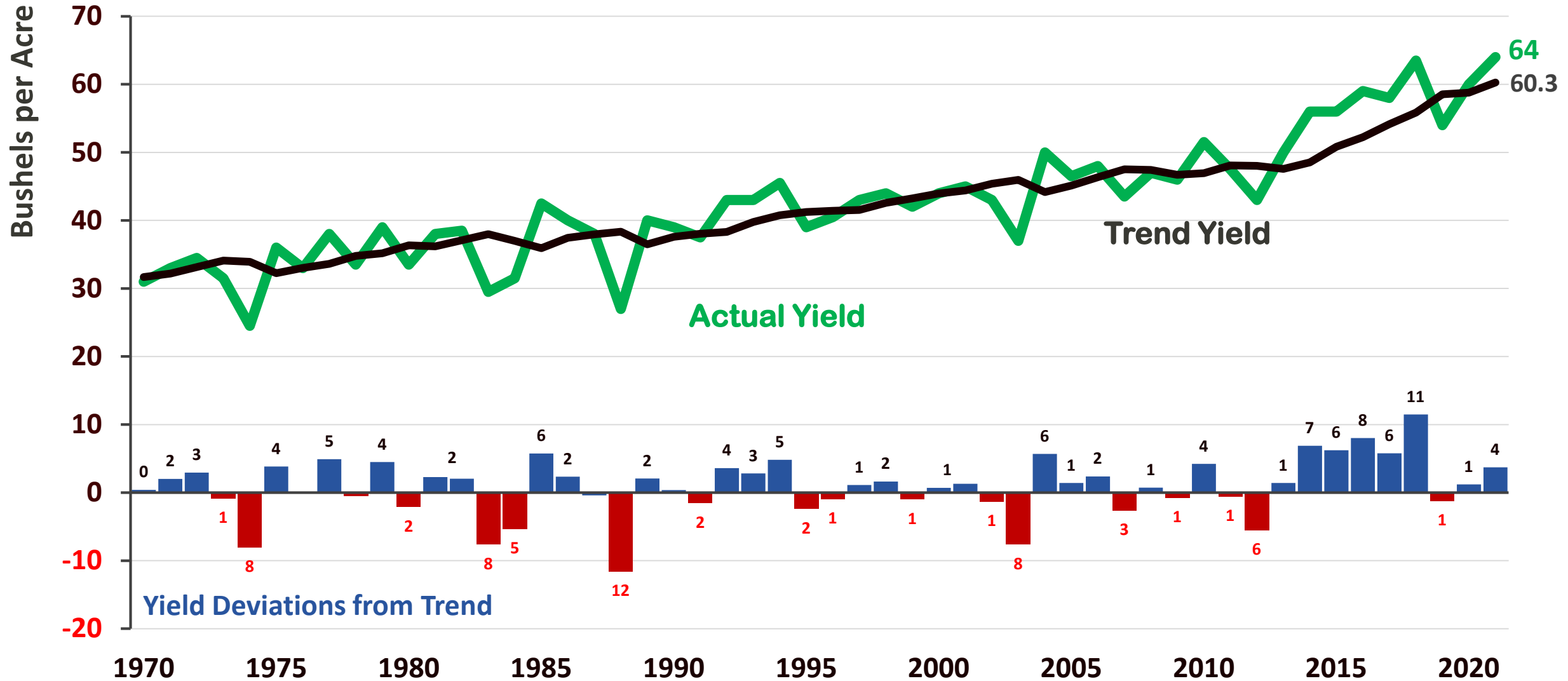
U.S. Market Year Average Prices for Corn and Soybeans 1960 to 2021P



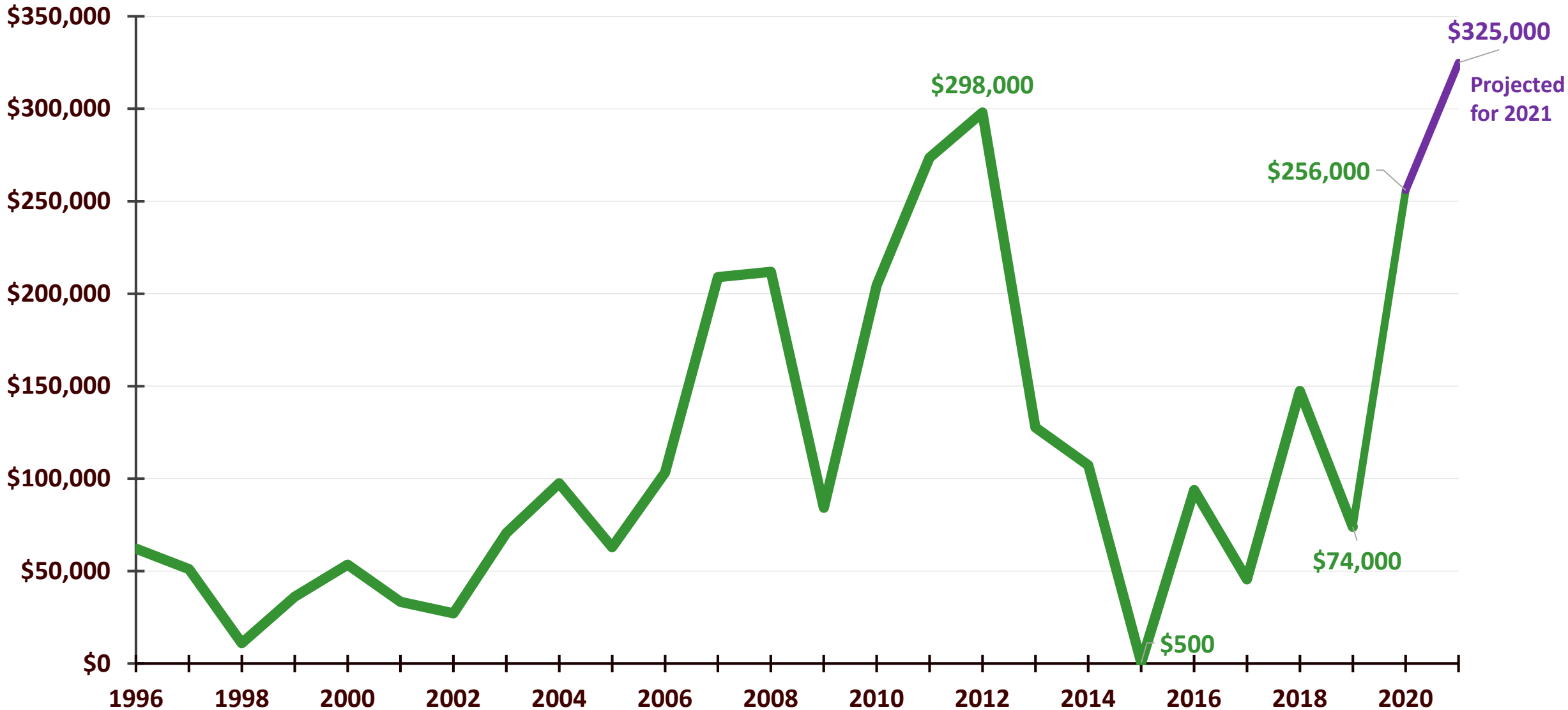
Illinois Corn Yields, 1970 to 2021P



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

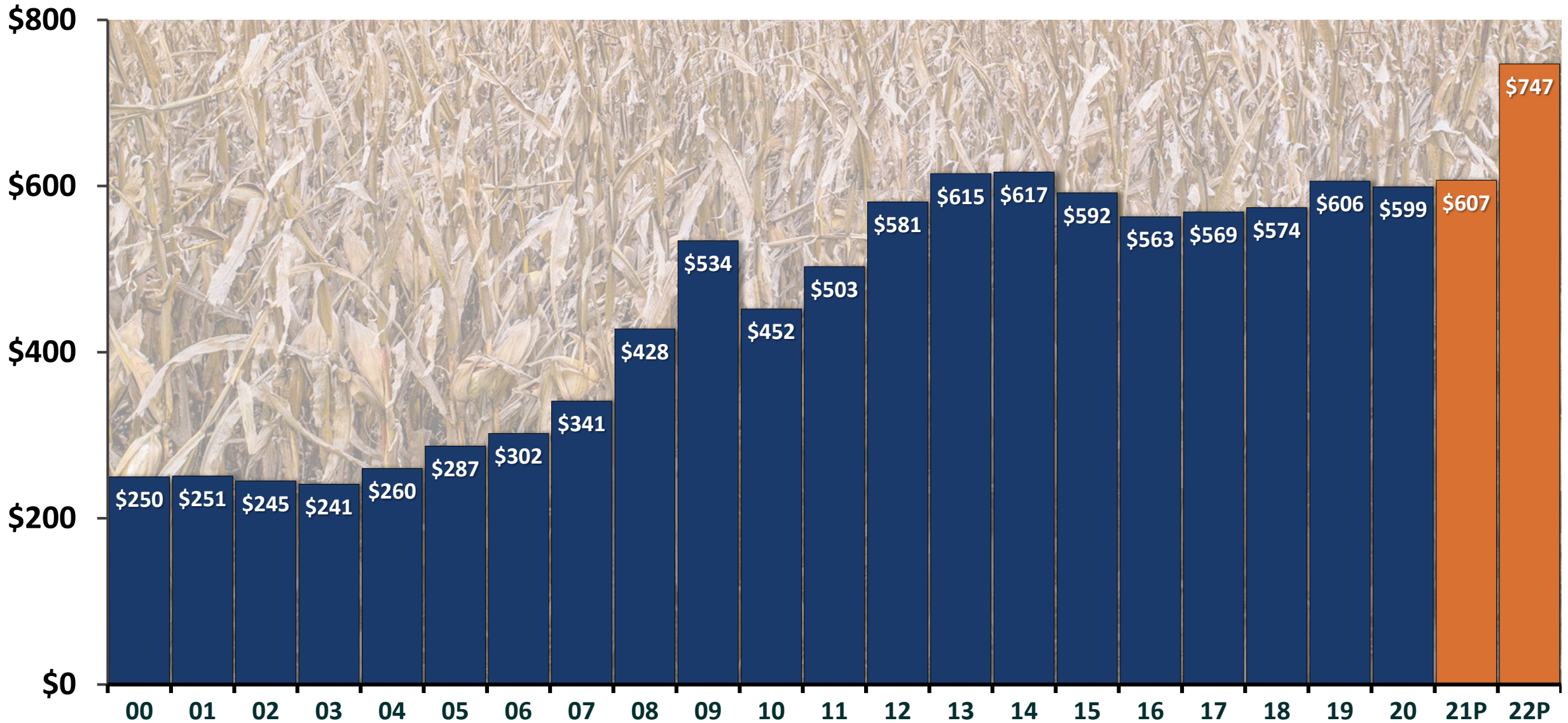


Current fall 2022 bids for soybeans are near \$12.00
What will the fall delivery price be with normal crops?

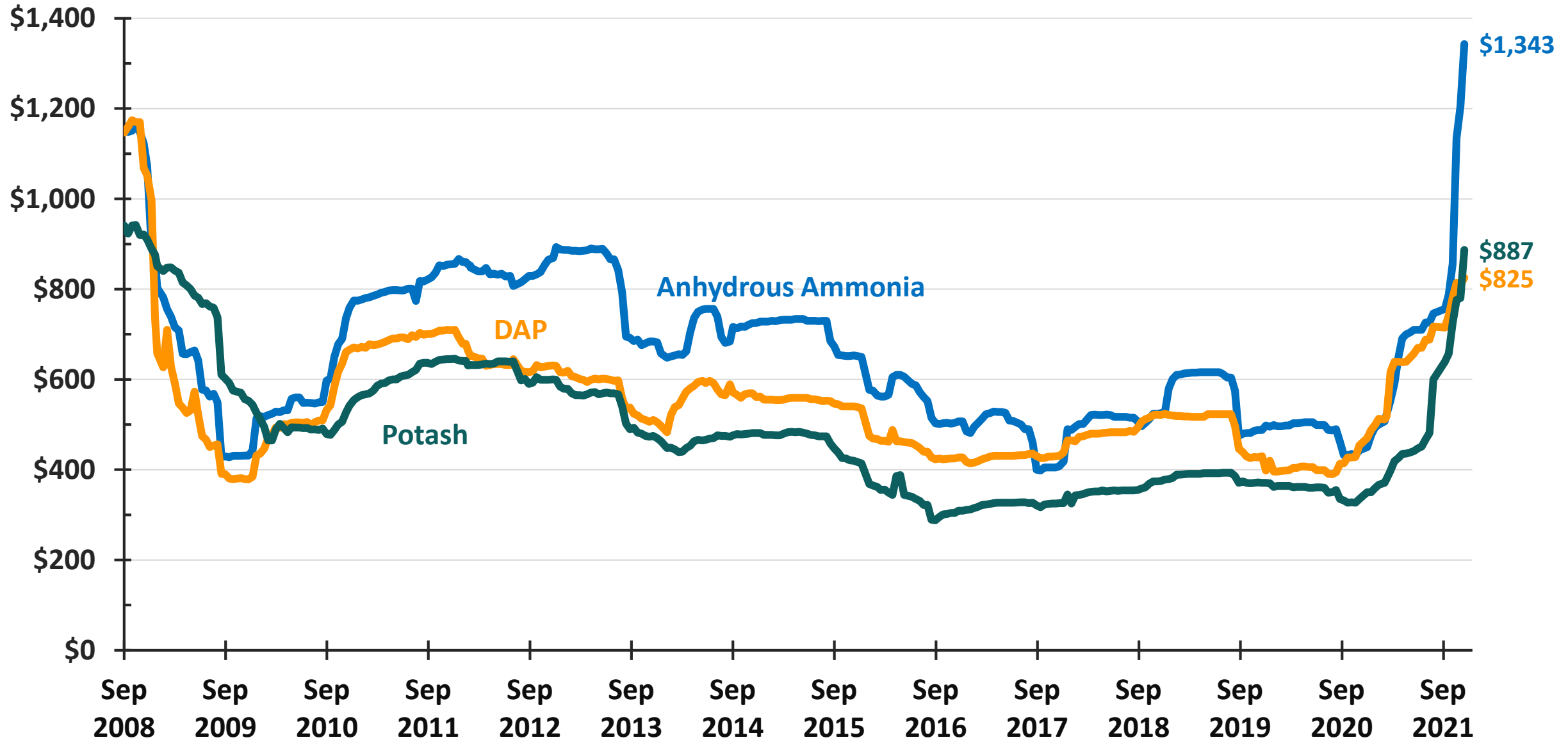
- Below \$10.25
- \$10.25 to \$11.25
- \$11.25 to \$12.25
- \$12.25 to \$13.25
- Over \$13.25



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)

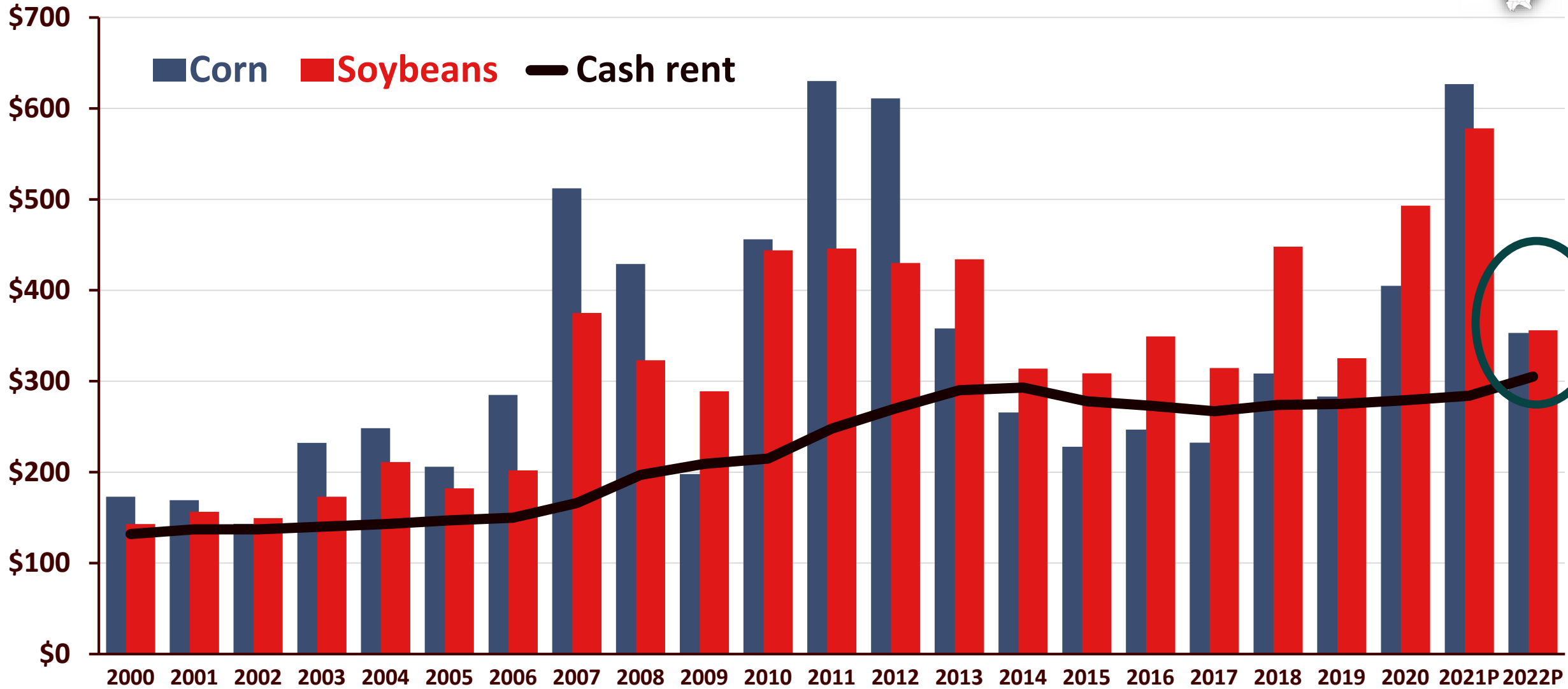
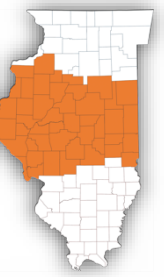
Friday, December 3rd

**Supply Bottlenecks and
Management Decisions**

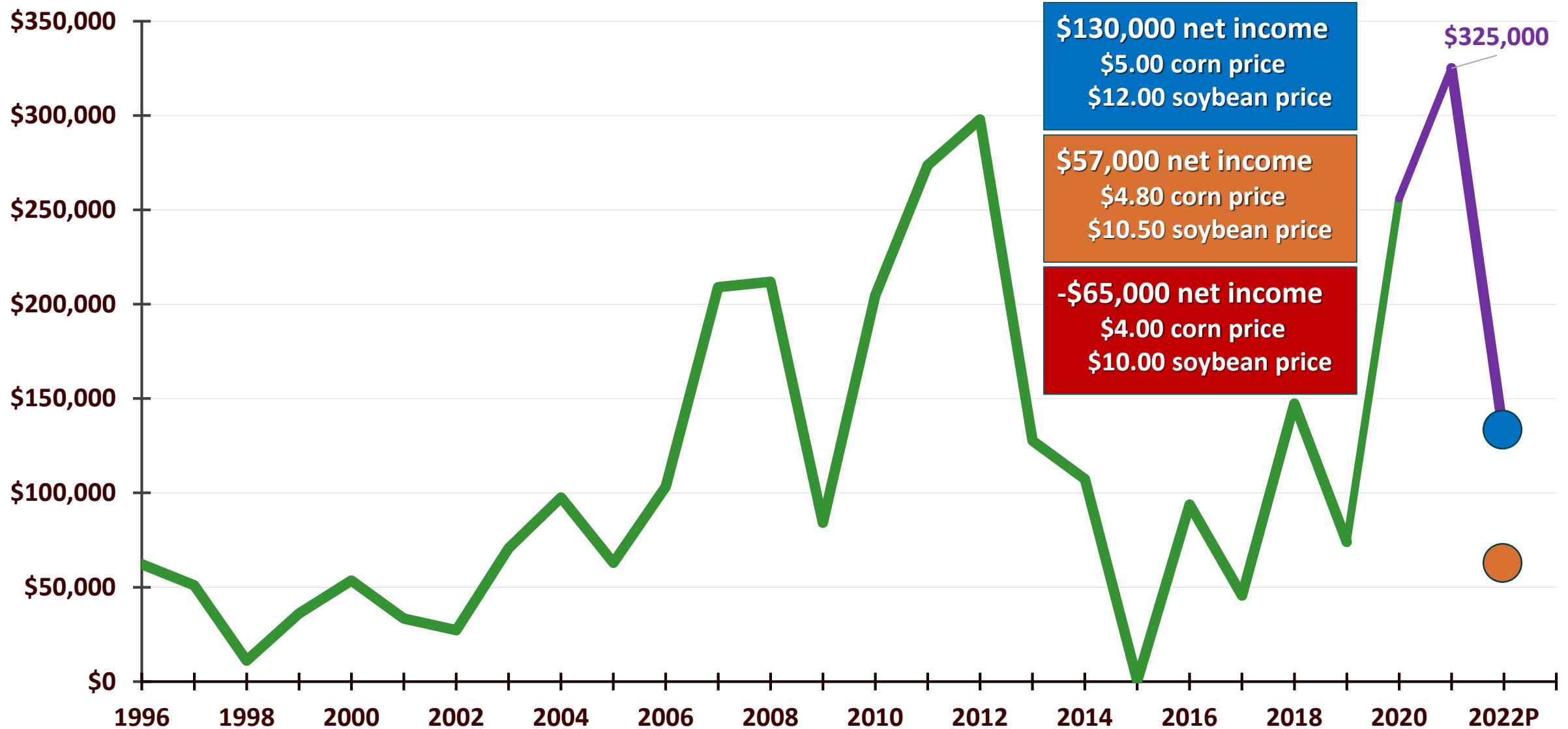
Gary Schnitkey and Nick Paulson

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



\$130,000 net income
\$5.00 corn price
\$12.00 soybean price

\$57,000 net income
\$4.80 corn price
\$10.50 soybean price

-\$65,000 net income
\$4.00 corn price
\$10.00 soybean price

\$325,000



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

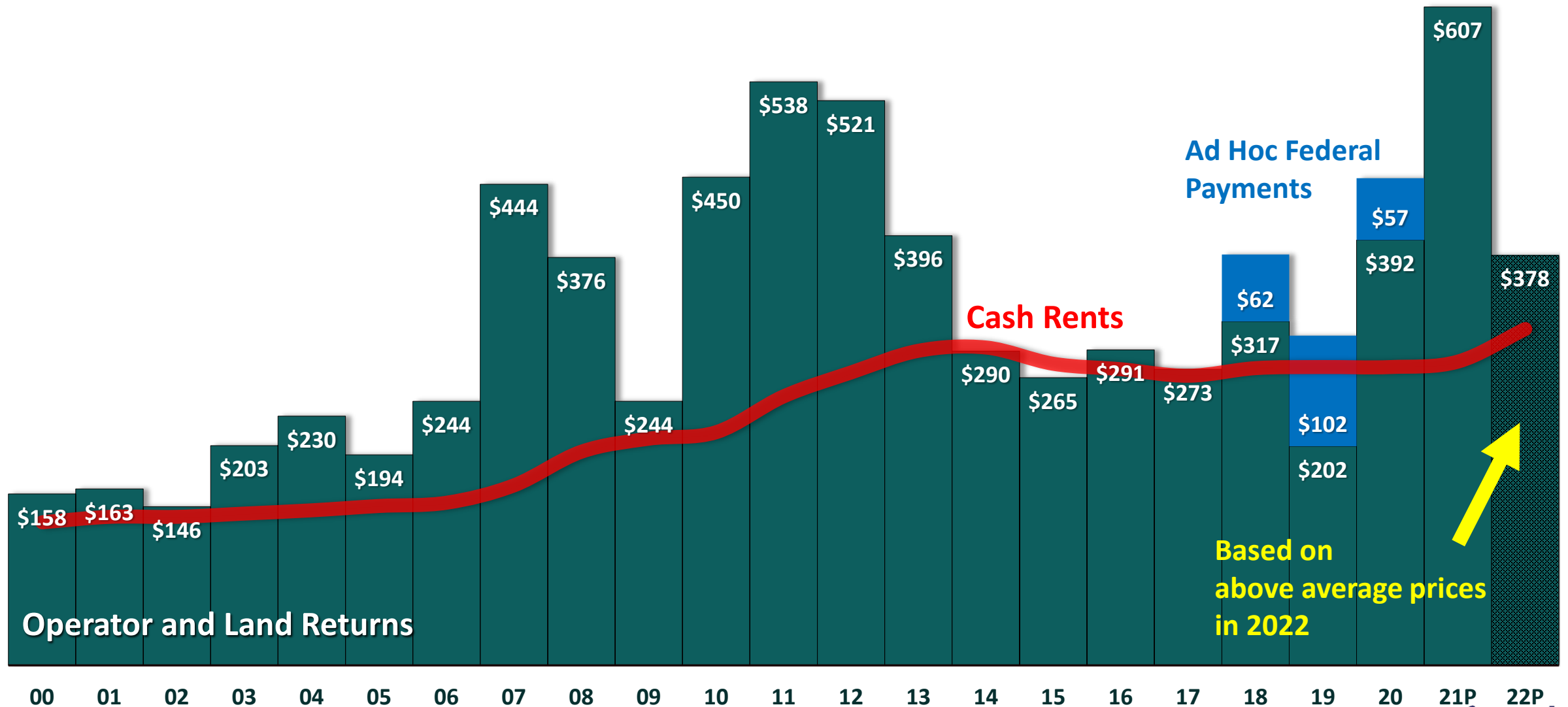


How much do average cash rents change up in 2022?

- 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 2022P

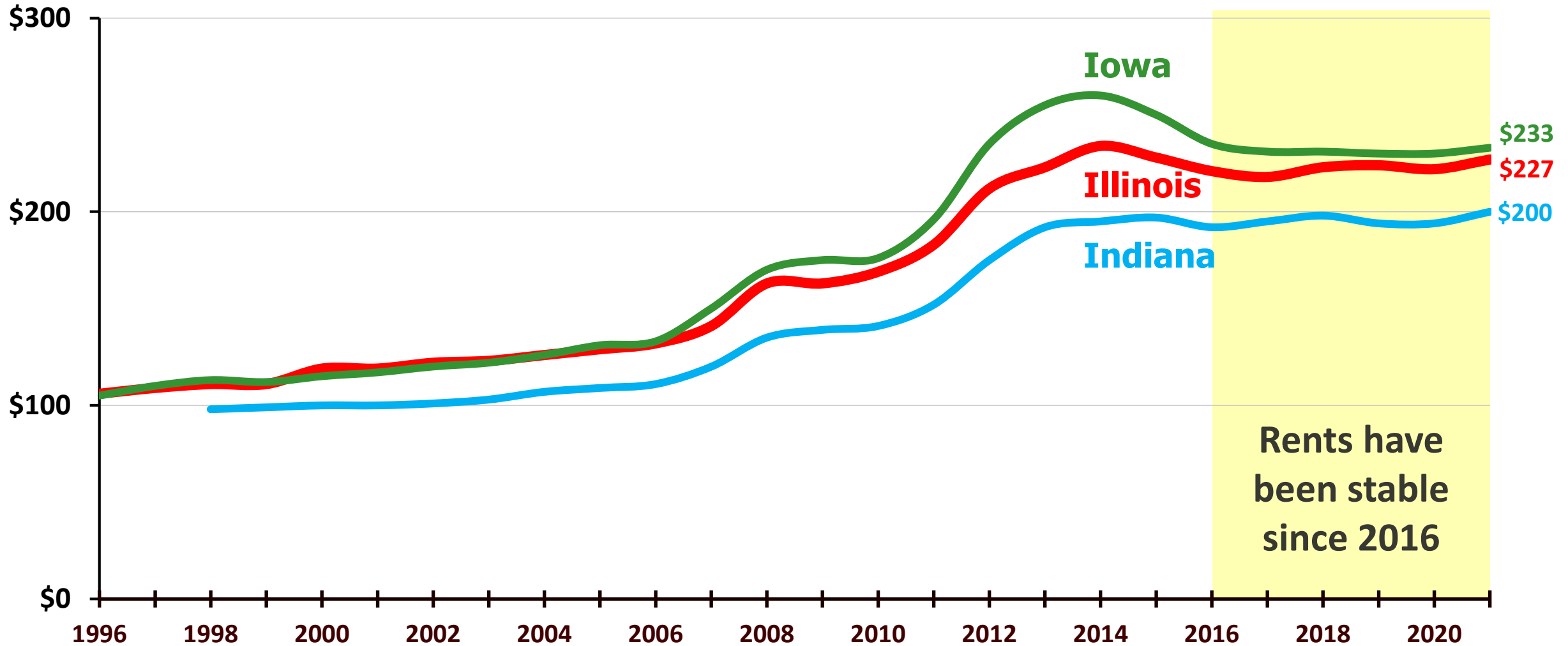


Ad Hoc Federal Payments

Cash Rents

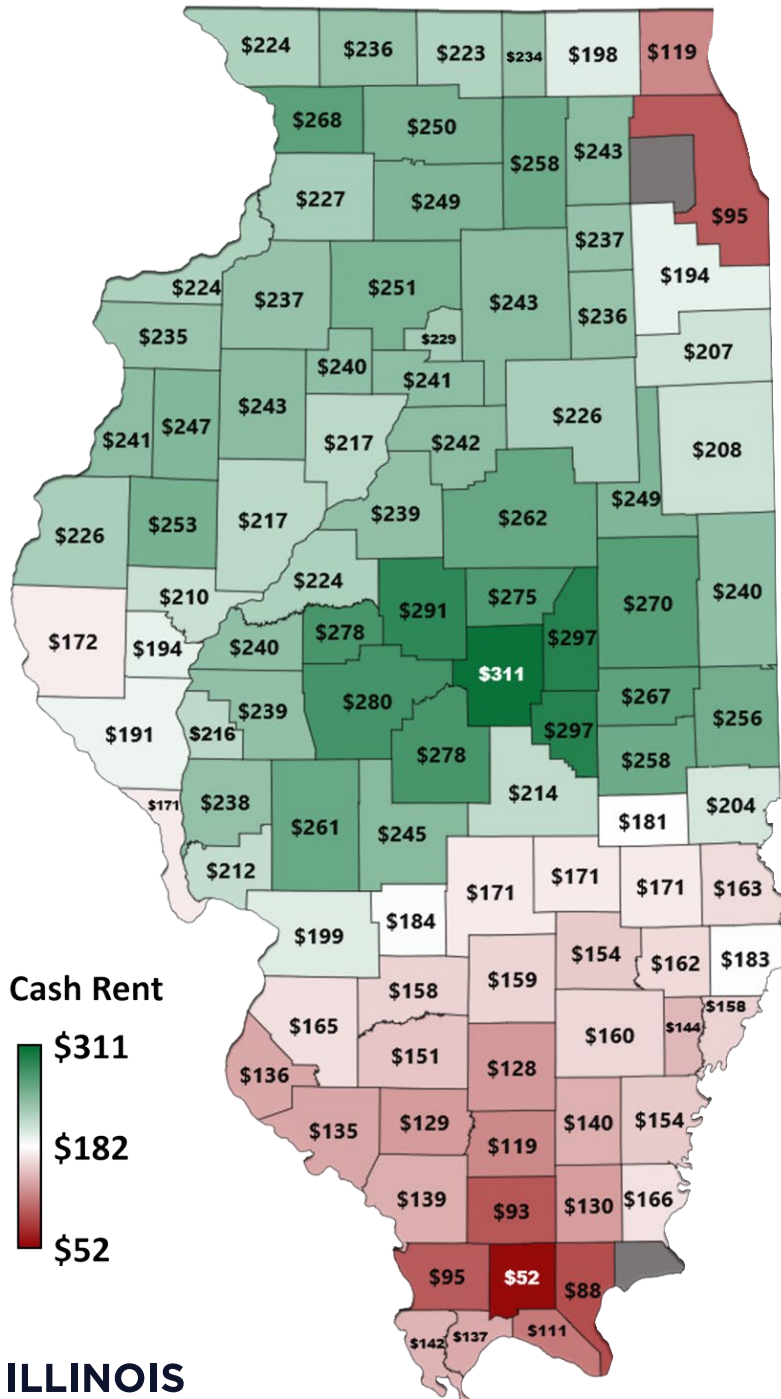
Based on above average prices in 2022

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



Source: National Agricultural Statistical Service

2021 County Cash Rents



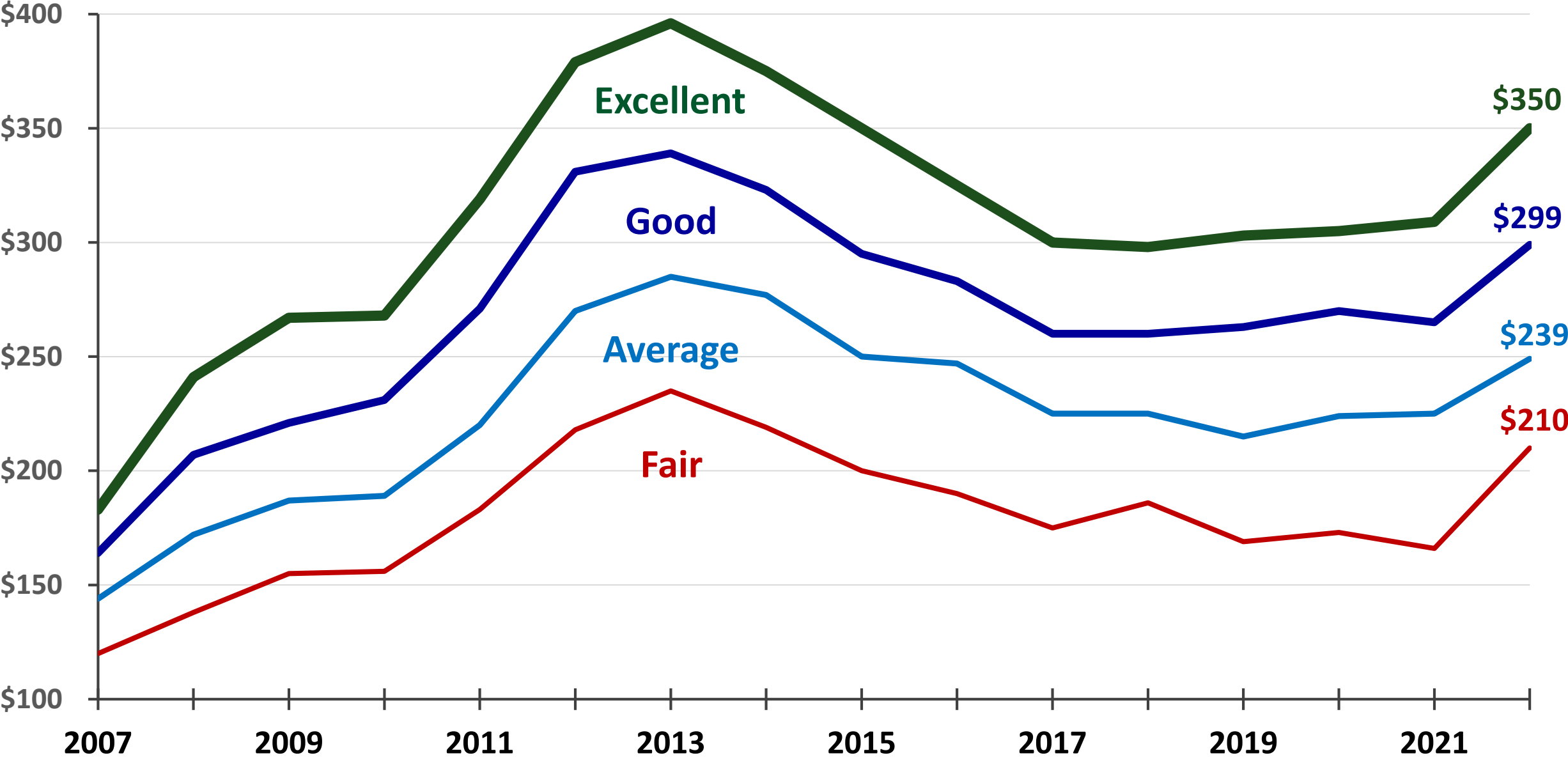
Released by the
National Agricultural Statistical Service

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 |

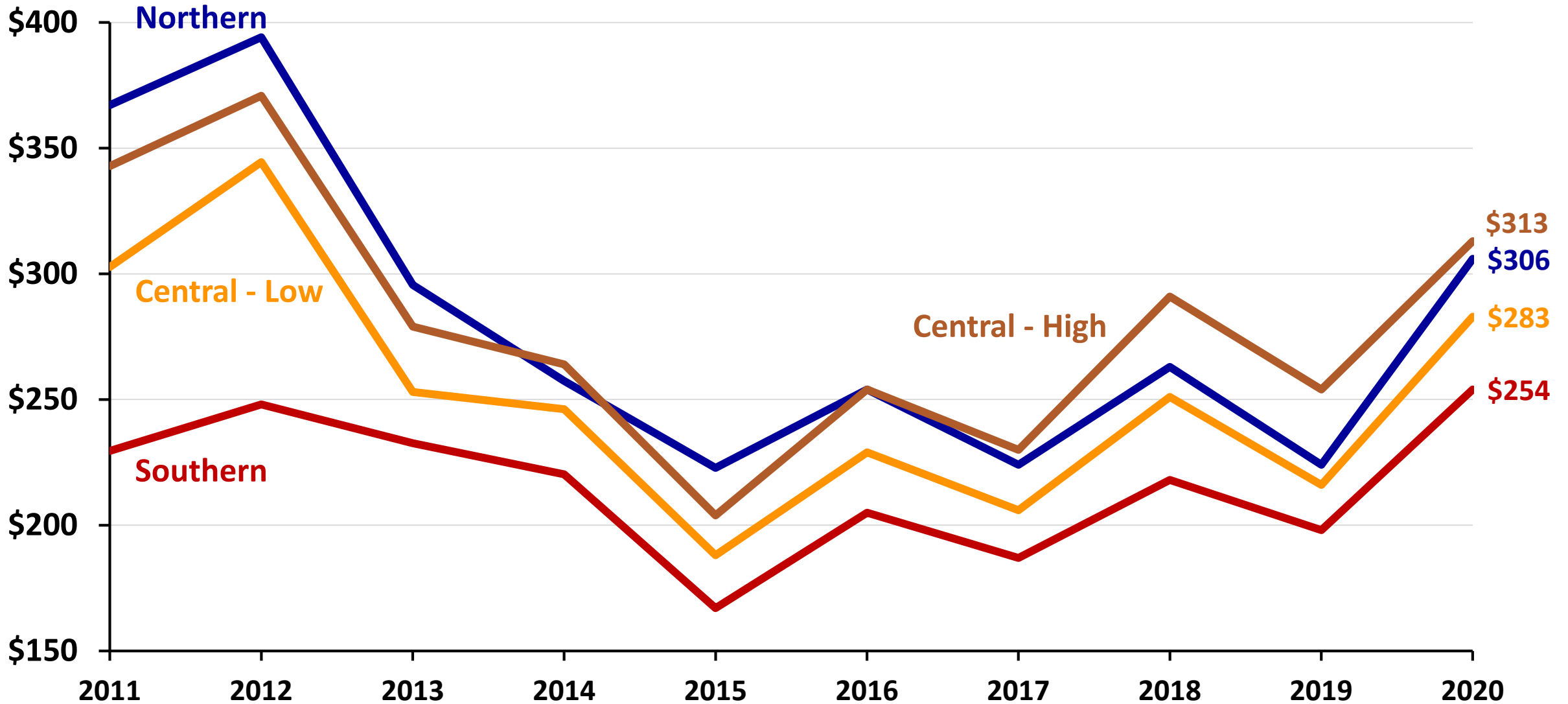
**Cash Rents
from survey
\$ per acre**

Historic Cash Rents from Survey in Dollars per Acre

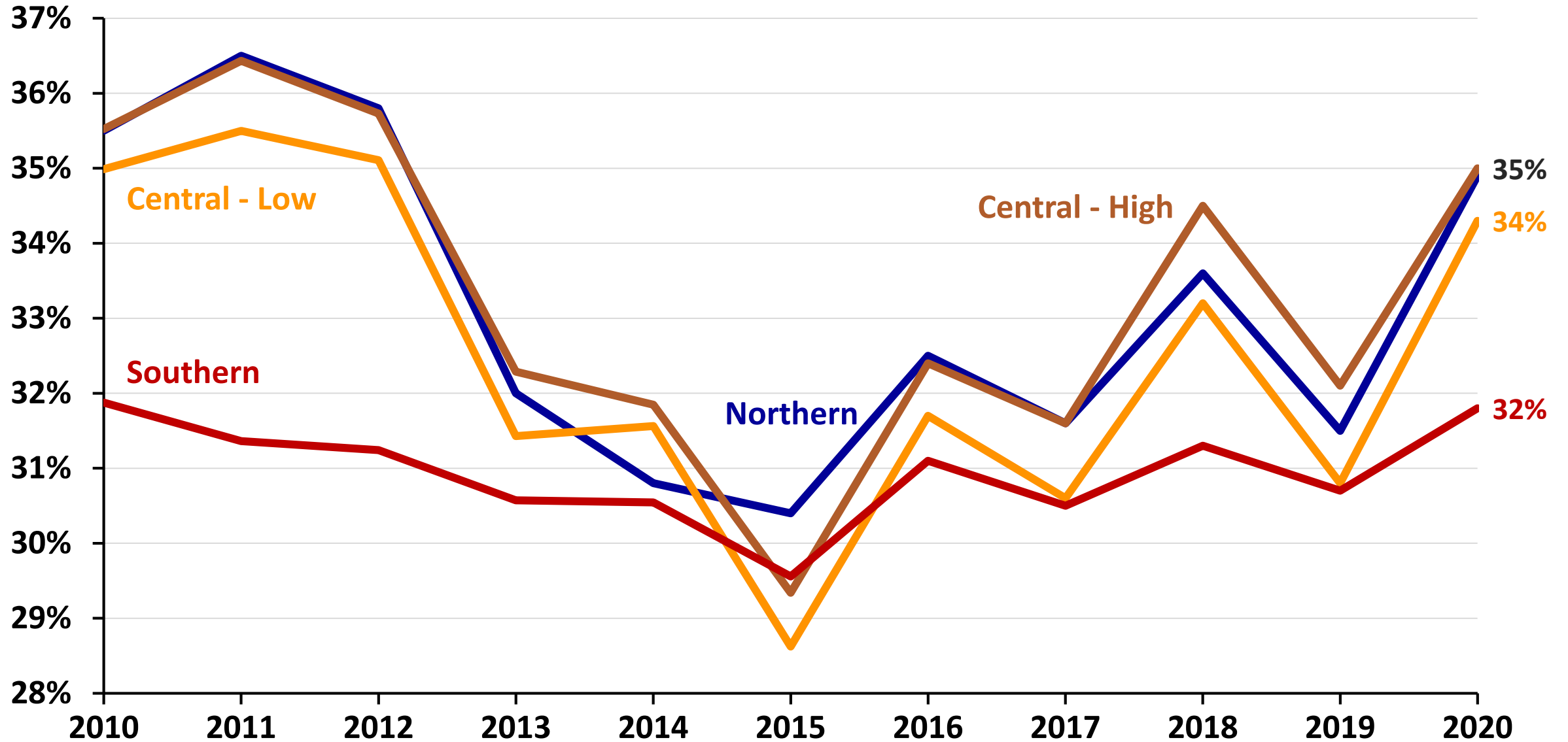


Landlord's Adjusted Net-Share Rent from Crop Share Leases

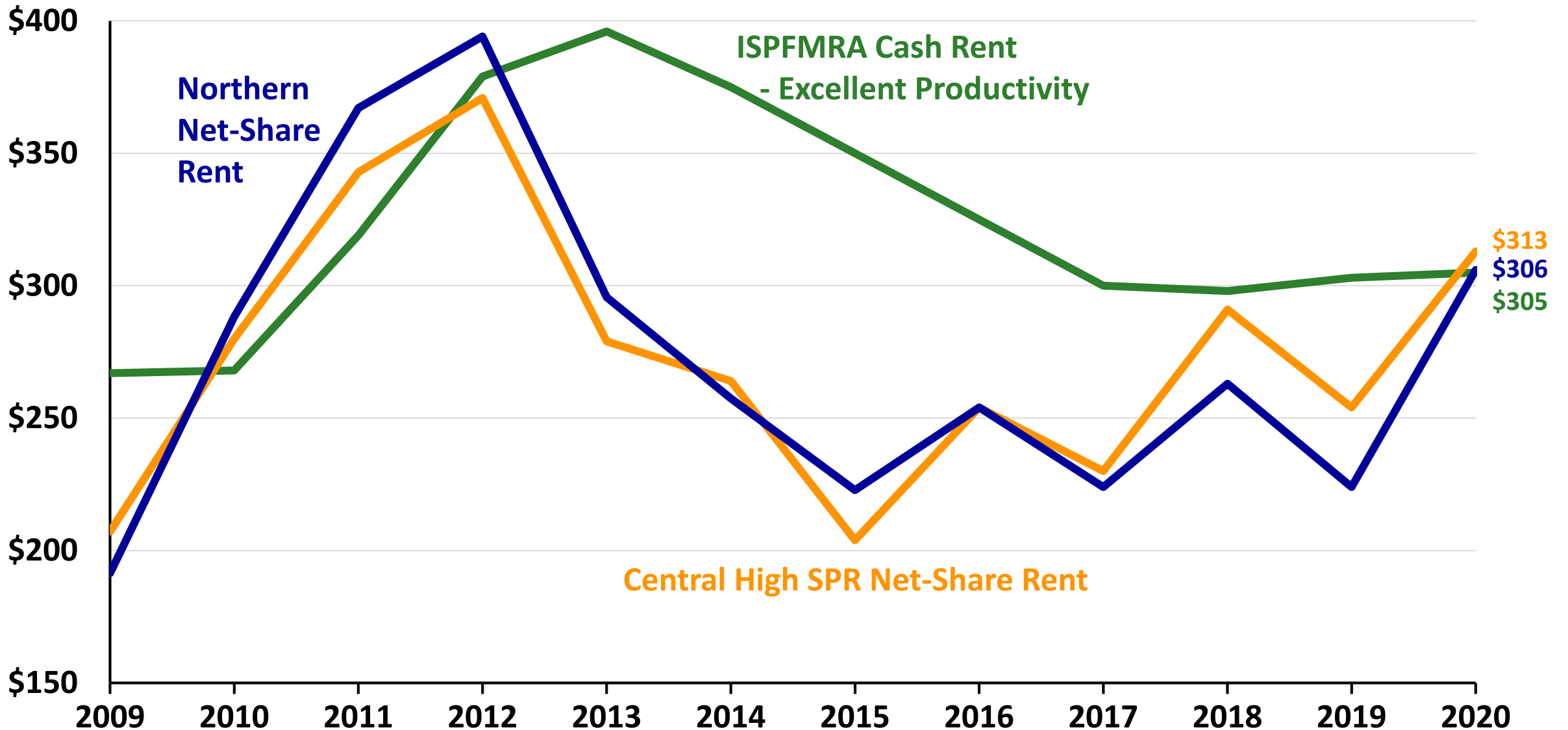
FBFM Pure Grain Farms



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 2021
- 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

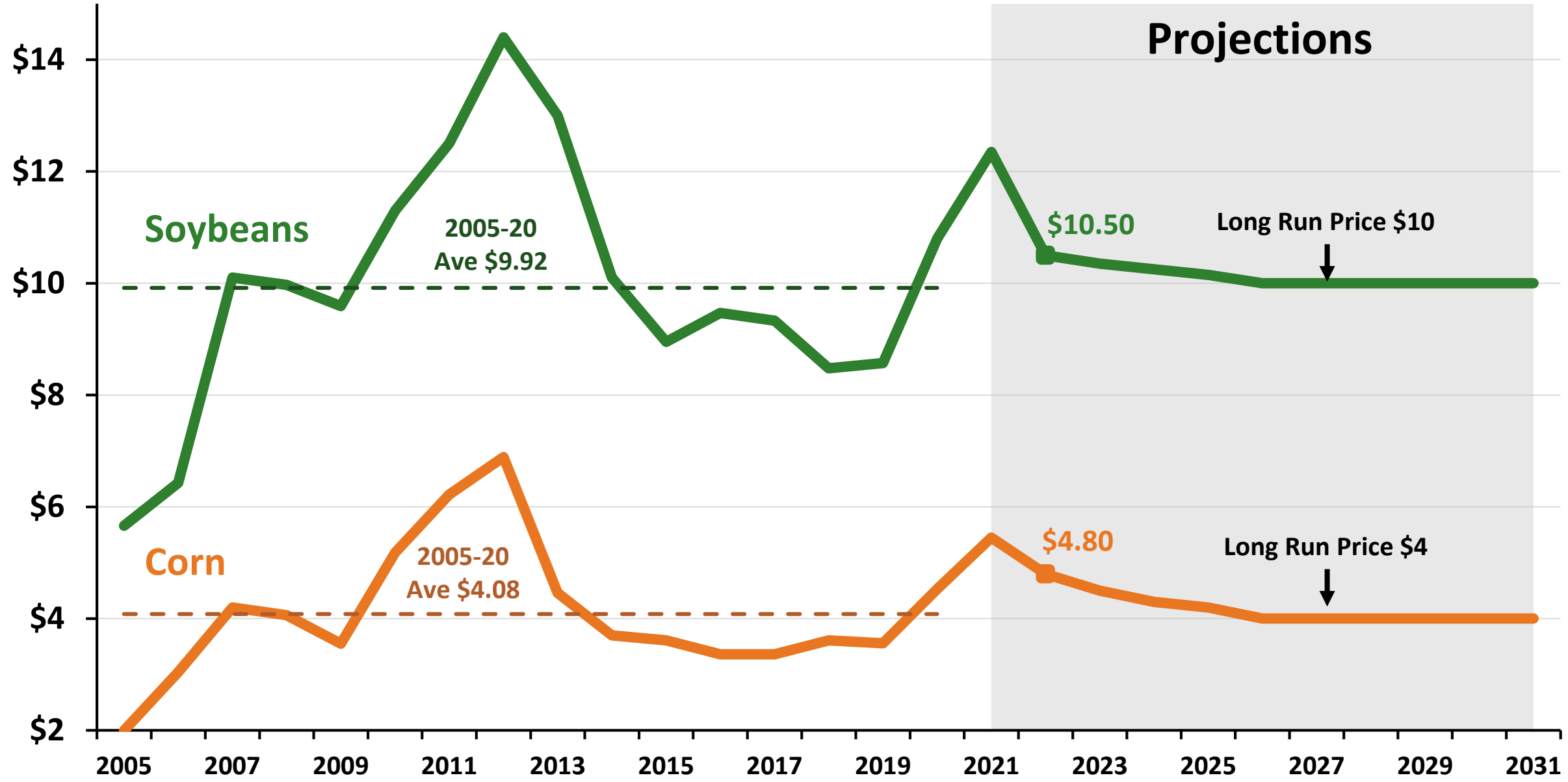


Five-years from now, will soybean prices average?

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

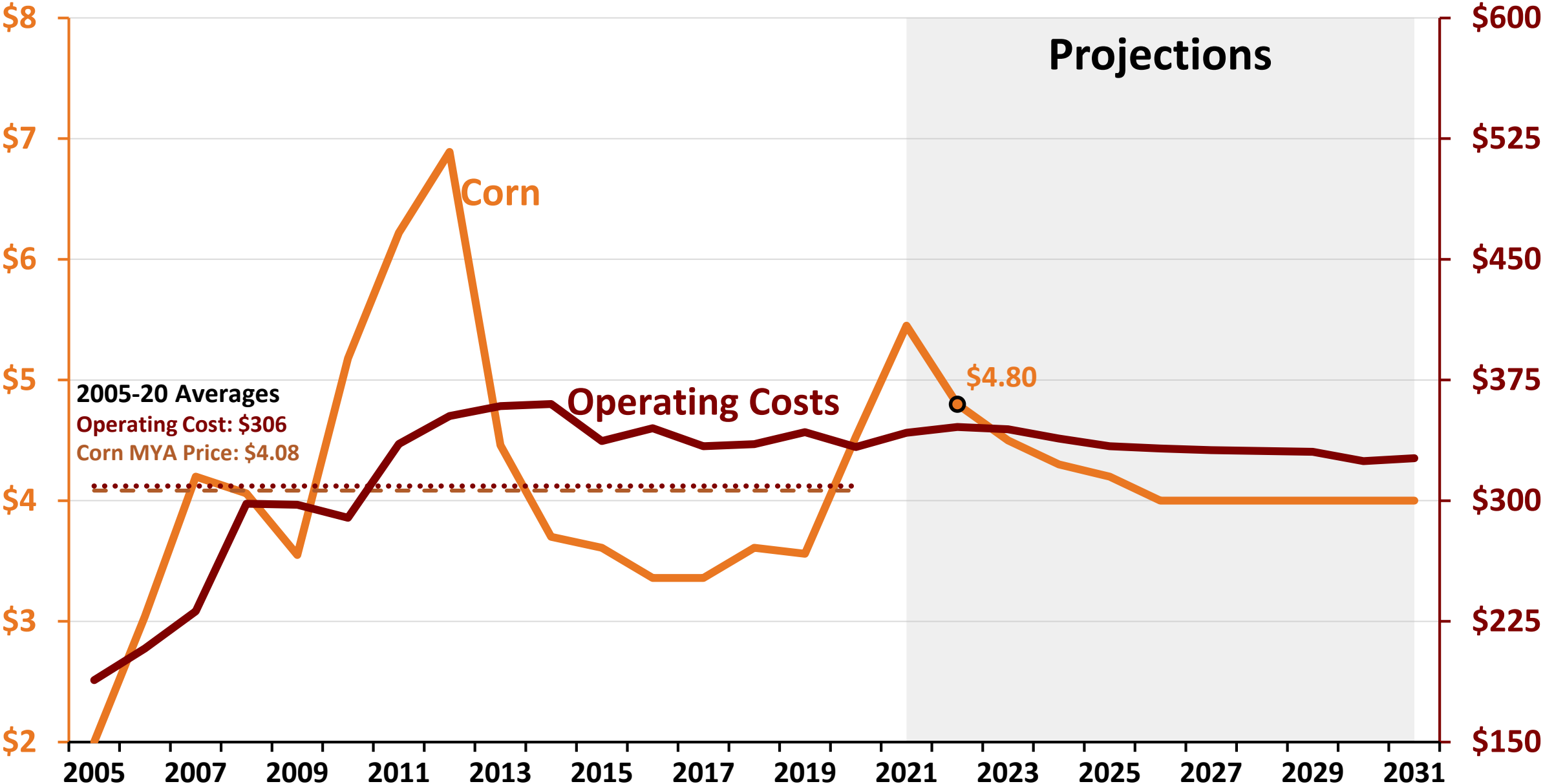


Historic & Projected Market Year Average Prices for Corn & Soybeans



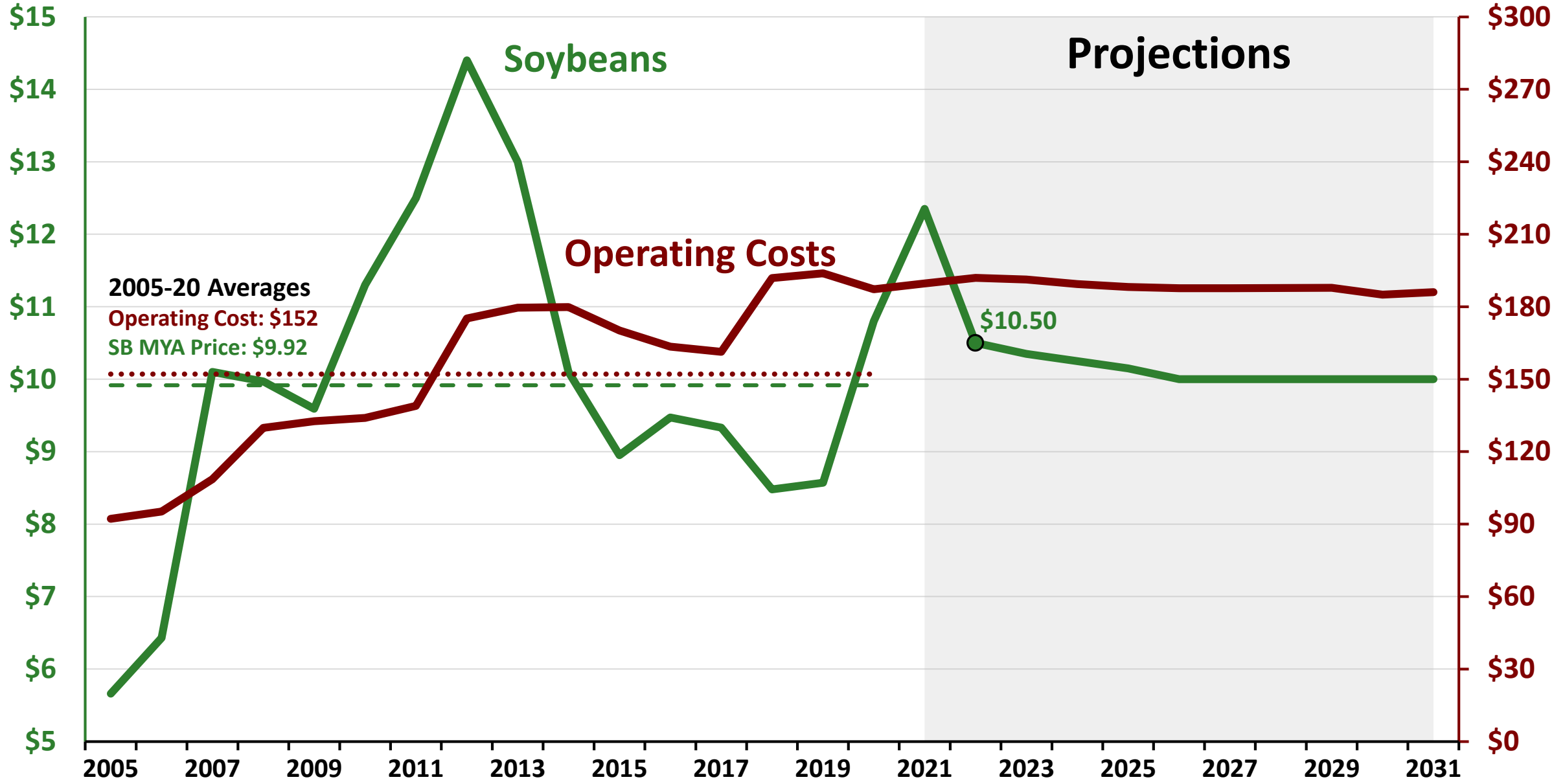
Data Source: USDA ERS Commodity Costs and Returns and USDA Long-Term Agricultural Baseline Projections (Nov. 2021)

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)

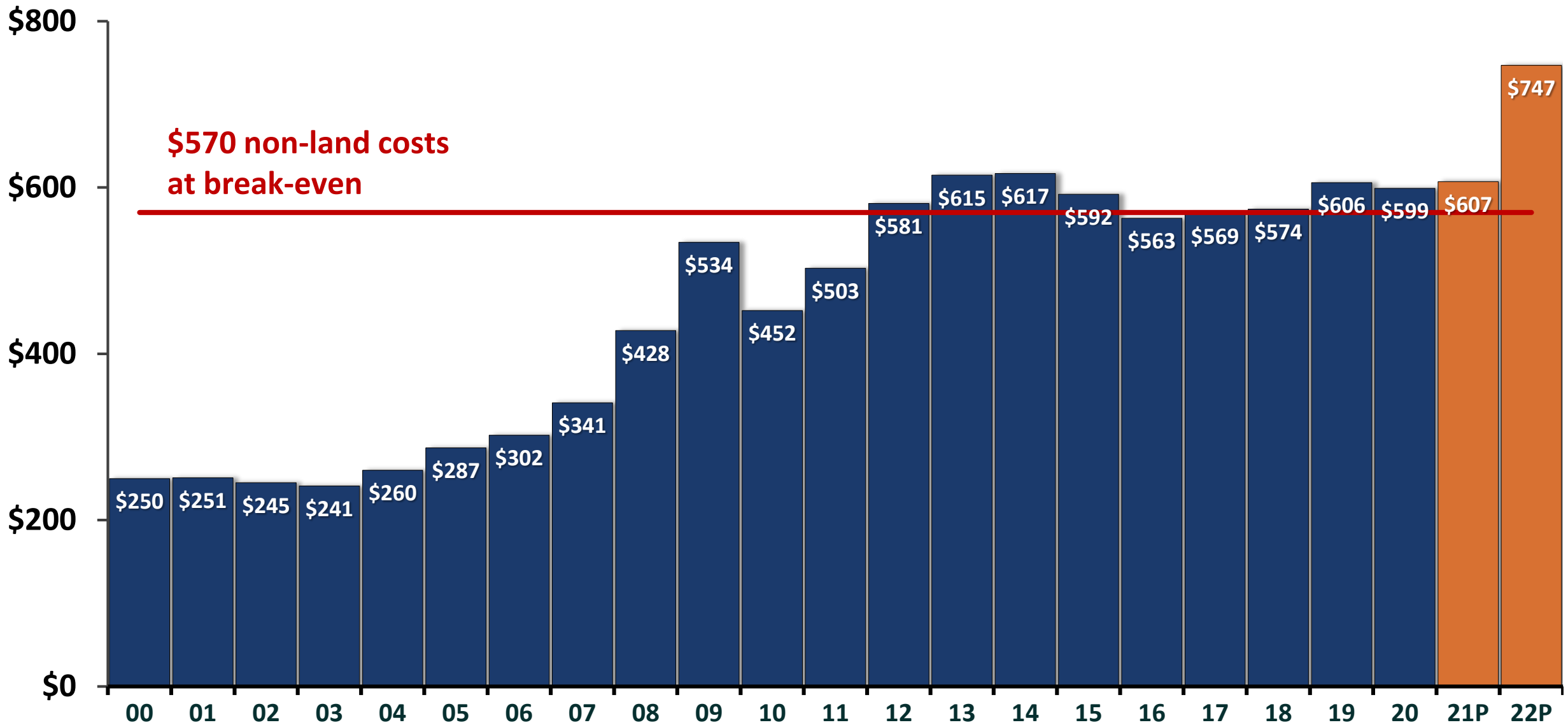
Relative Prices & Costs

- 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
Gary Schnitkey, Nick Paulson, Krista Swanson, Carl Zulauf, and Jim Blatz
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