

Farmland Leasing Trends

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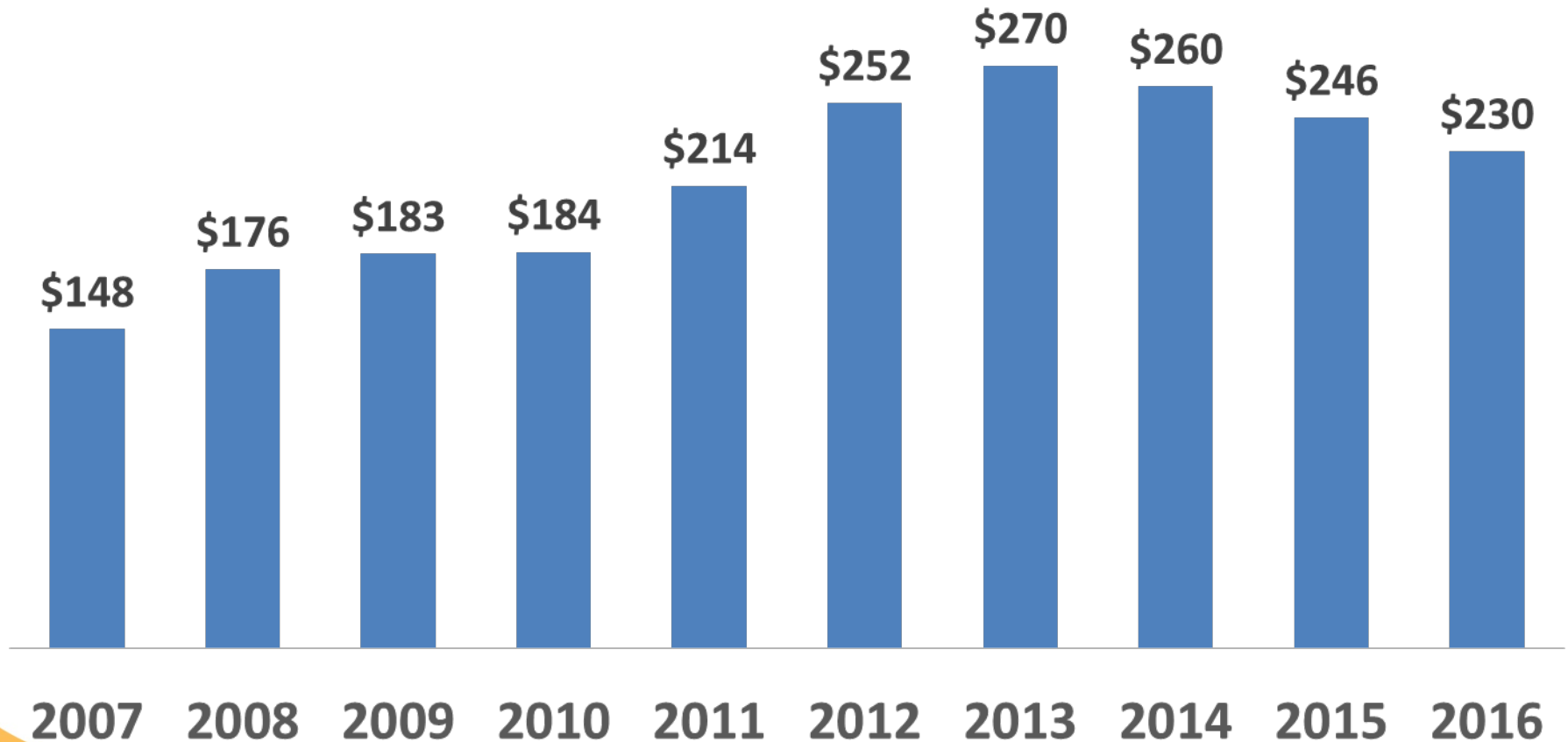
ASFMRA Iowa Chapter
Spring Seminar
Ames, IA
March 22, 2017

Main topics

- Trends in Cash Rents
- Factors affecting Cash Rents:
 - Tenant perspective
 - Landowner perspective

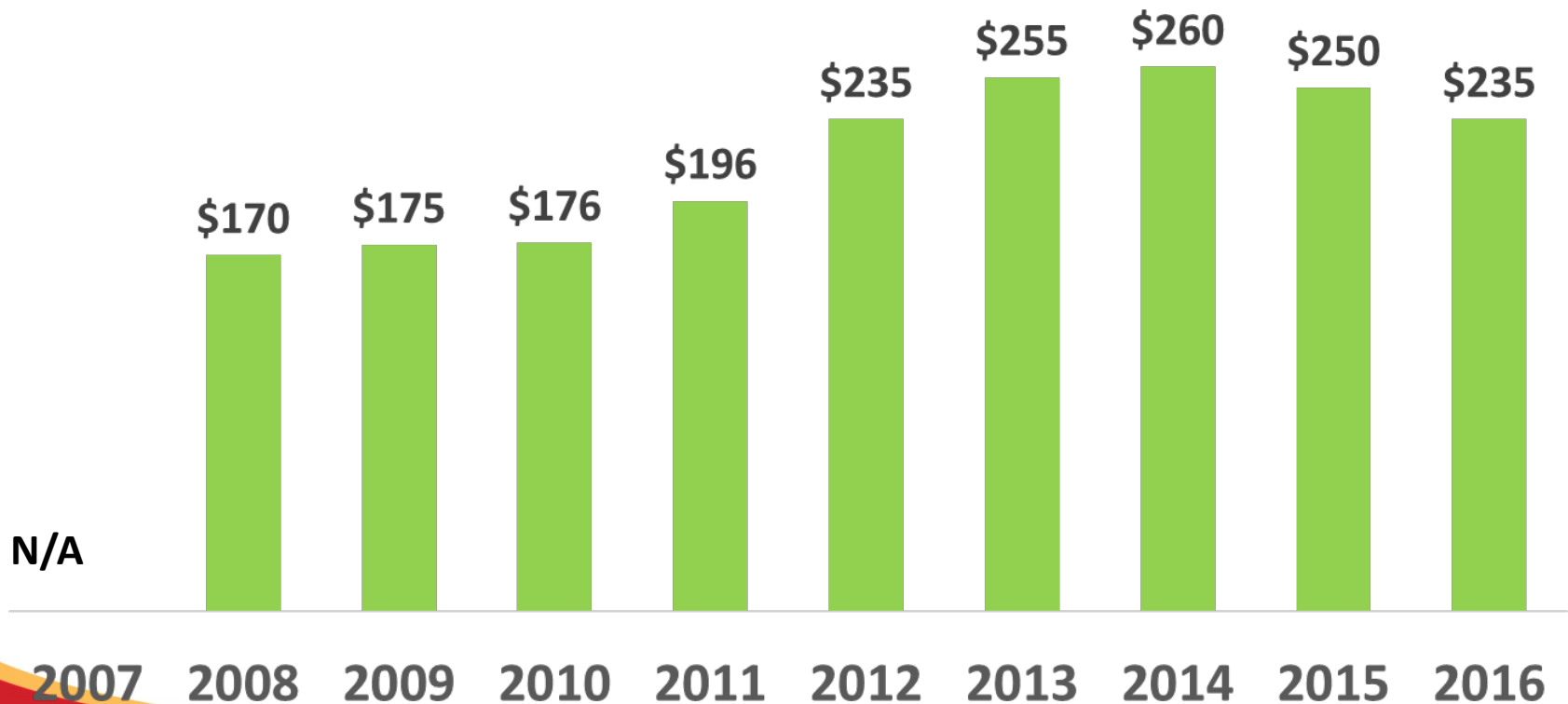
Avg. Cash Rents in Iowa, Cropland

Source: ISU Survey



Avg. Cash Rents in Iowa, Cropland

Source: USDA-NASS



ISU vs. NASS:

State Avg. Cash Rents

ISU

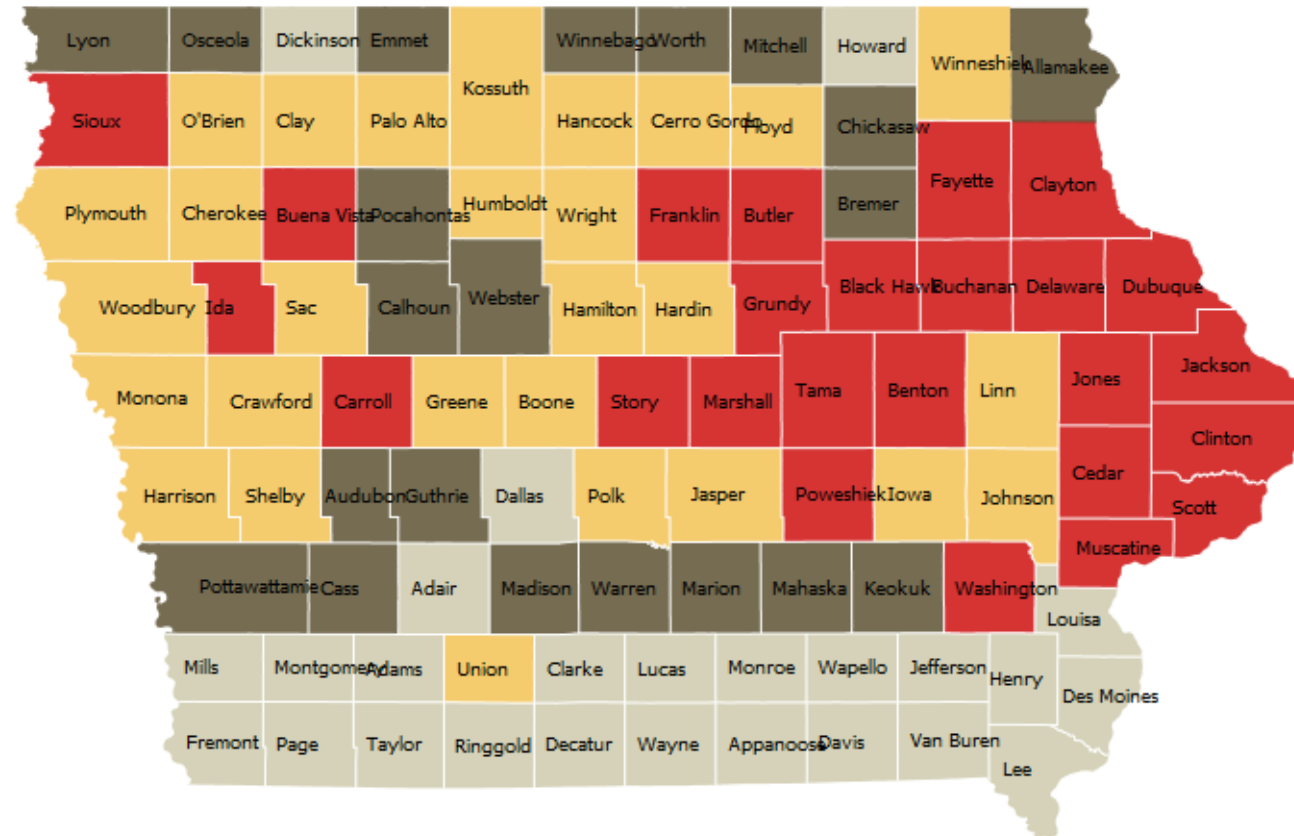
- **Typical Cash Rents** by County and Land Type (low, med, high yields)
- Mail and online
- Collection: March-April
- Report: May
- State level is average across counties
- Target: landowners, tenants, lenders, other ag professionals.
- Anyone can participate

NASS

- National survey of **Actual Cash Rent Paid** in ~11,000 segments of ~1 square mile in size.
- Telephone
- Collection: June
- Report: August
- Target: All farm operators operating within the selected segments (~85,000 agricultural and non-agricultural land use tracts).
- Response rate: ~35,000 personal interviews with farmers operating farms inside the segment boundaries

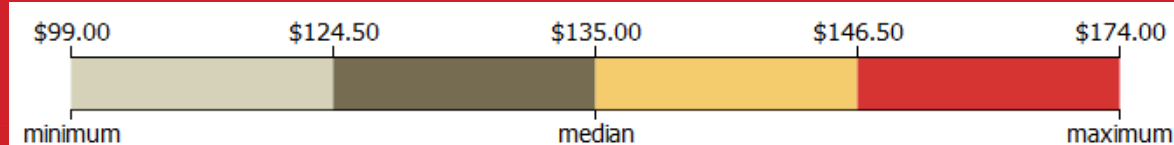
Avg. Cash Rent in 2006 by County. ISU Survey

2006 Iowa Cash Rent for Overall Quality Land



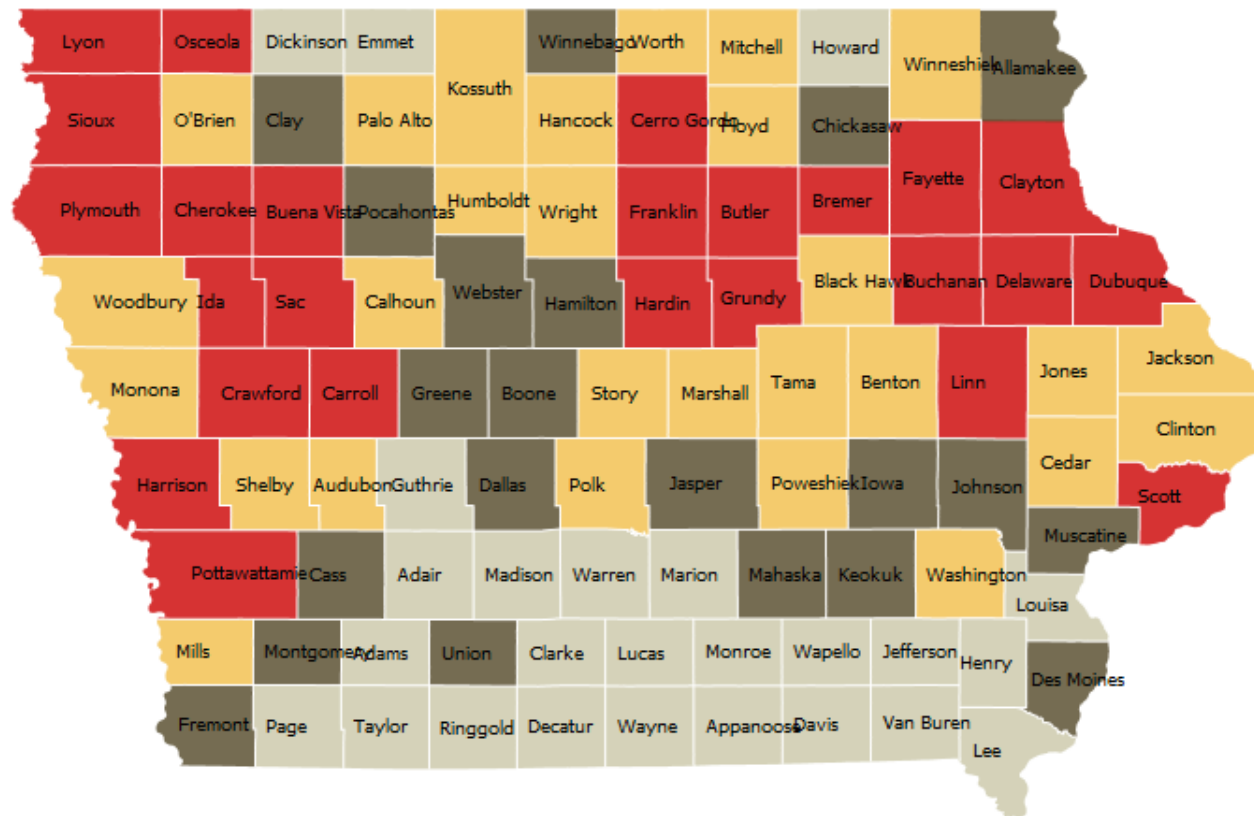
Highest: Scott \$174
Lowest: Wayne \$99

<http://www.card.iastate.edu/tools/ag-risk/cash-rental-rates/>



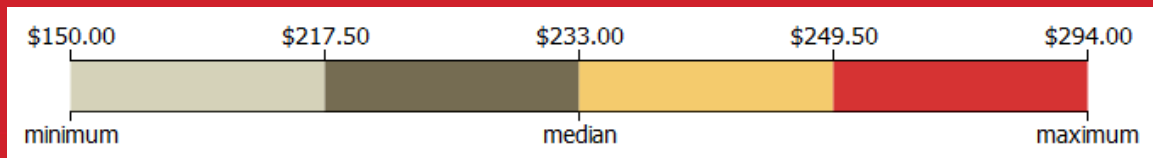
Avg. Cash Rent in 2016 by County. ISU Survey

2016 Iowa Cash Rent for Overall Quality Land



Highest: Dubuque \$294
Lowest: Wayne \$150

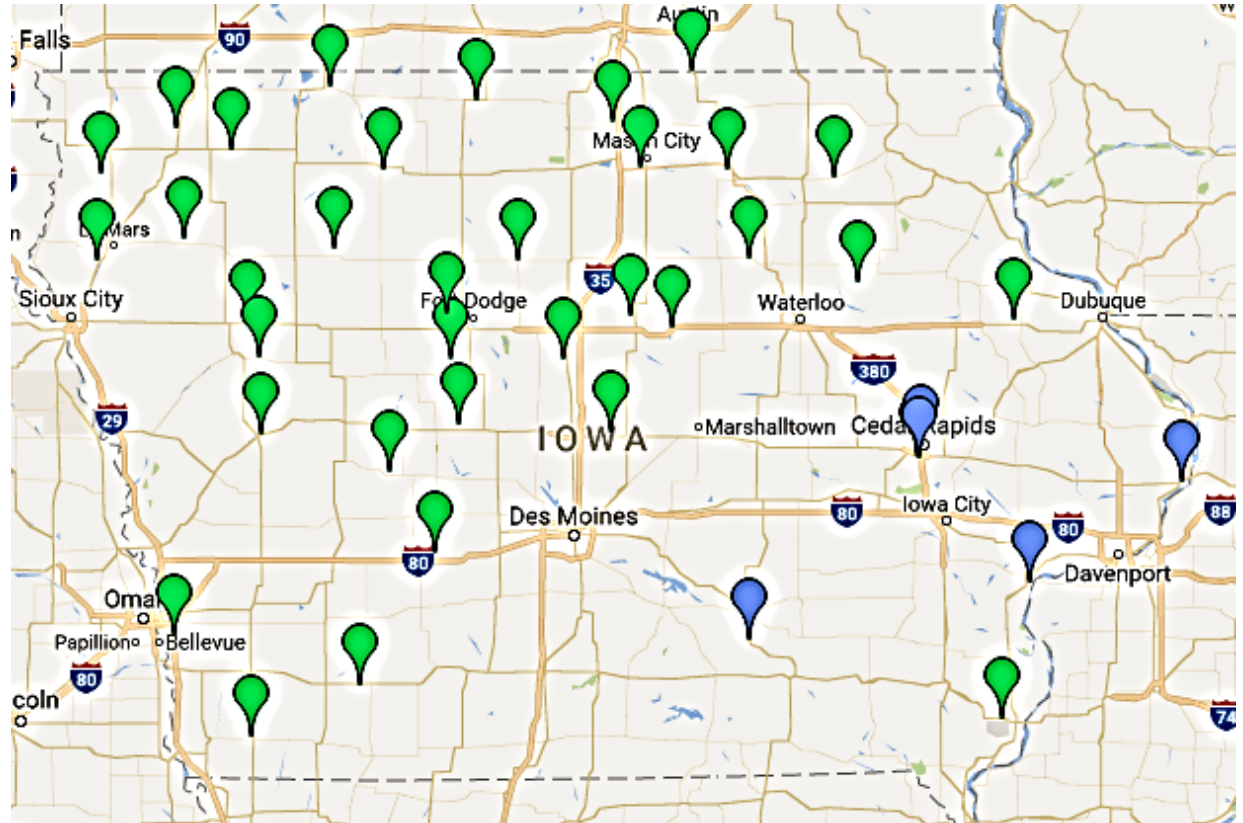
<http://www.card.iastate.edu/tools/ag-risk/cash-rental-rates/>



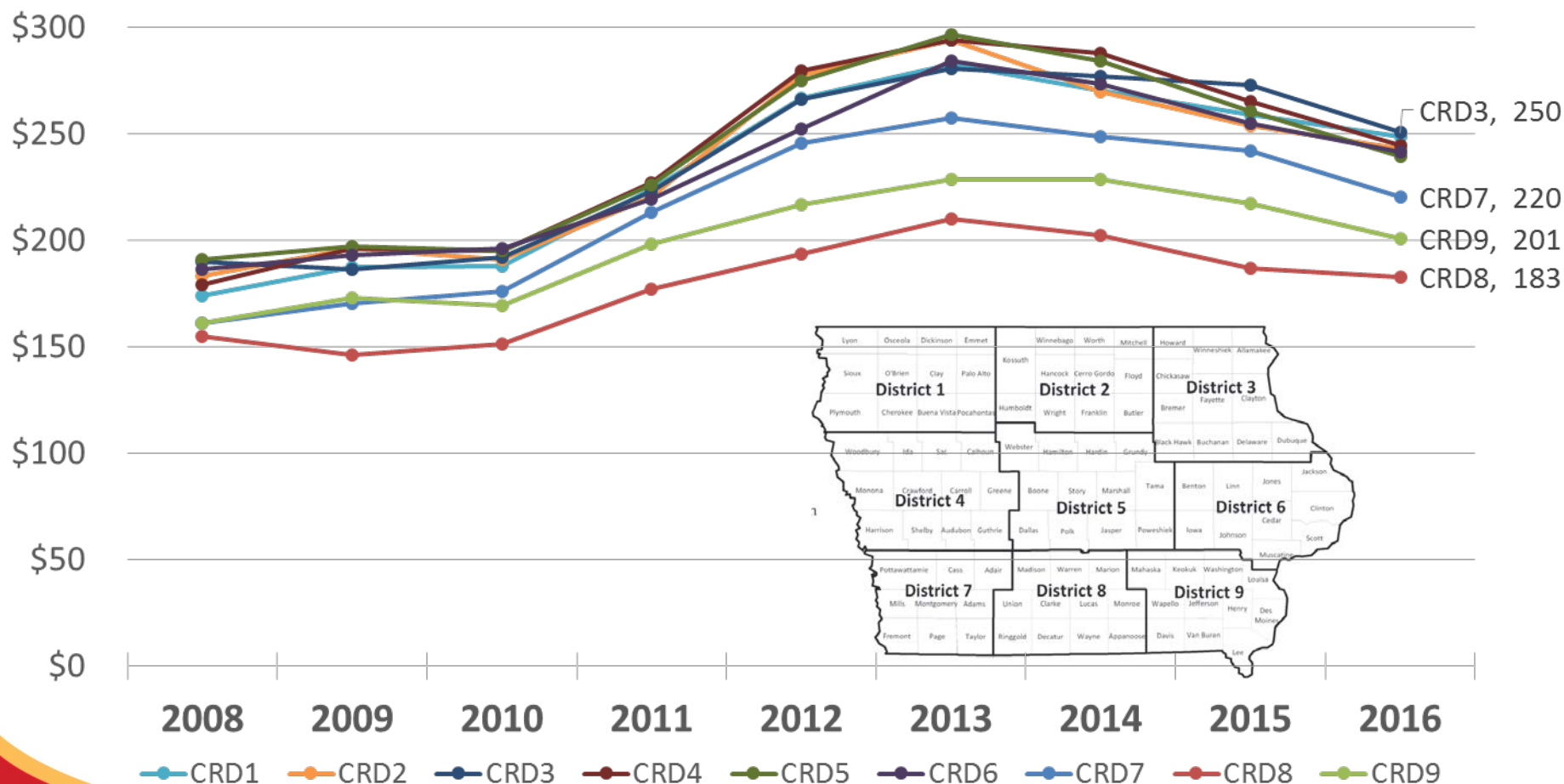
Location of Ethanol Plants

Source: Google Maps

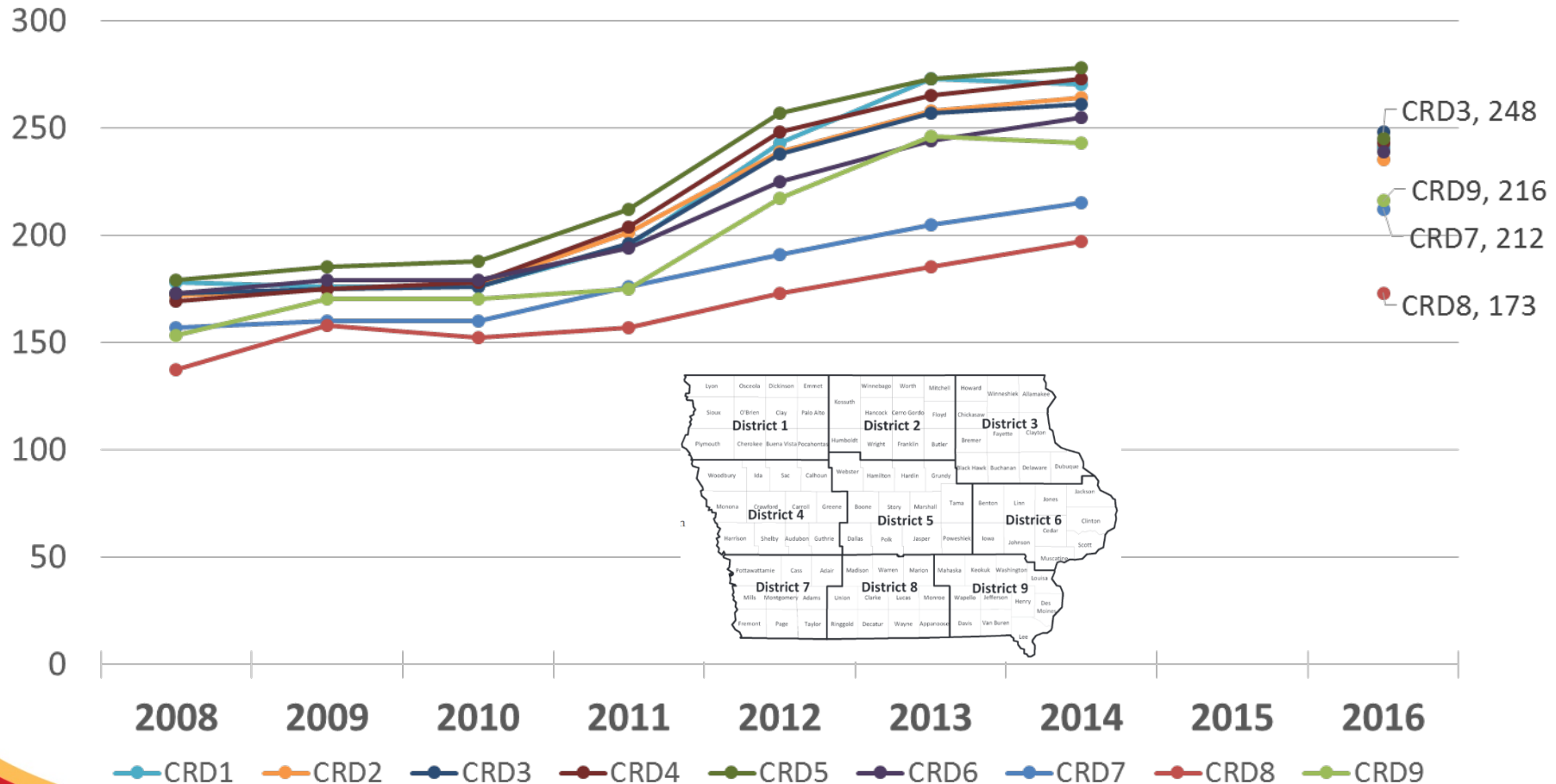
Green: Dry Mills
Blue=Wet Mills



Avg. Cash Rents, Cropland by Crop Reporting District. ISU Survey



Avg. Cash Rents, Cropland by Crop Reporting District. USDA-NASS



ISU vs. NASS:

County Avg. Cash Rents

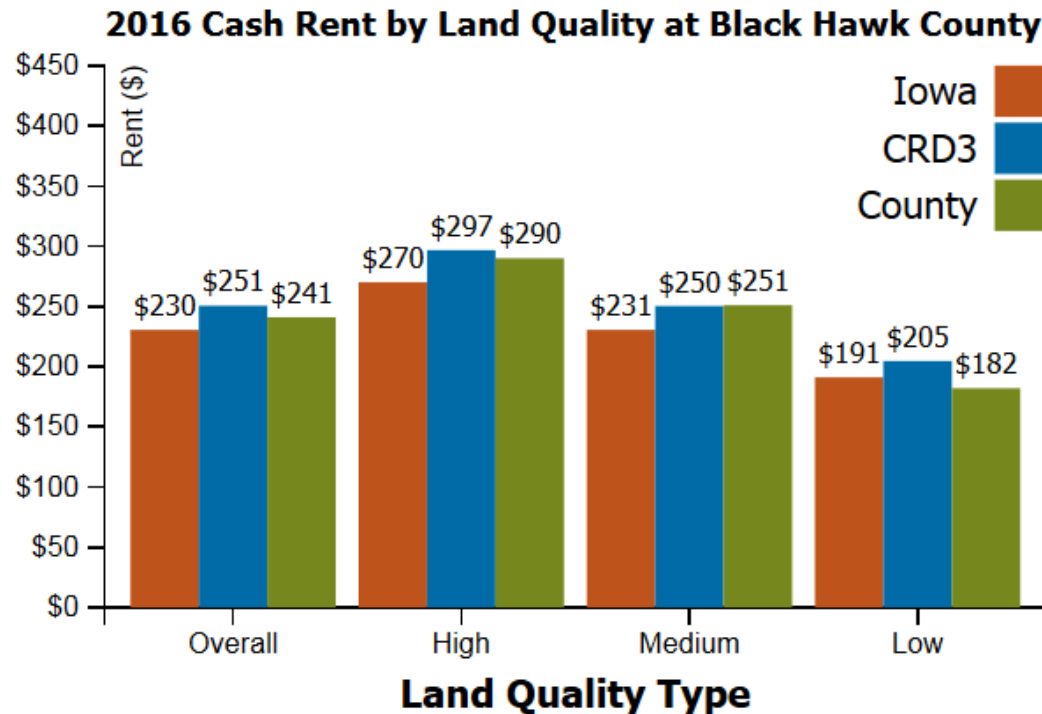
ISU

- Typical Cash Rents by County and Land Type
- Mail and online
- Collection: March-April
- Report: May
- State level is average across counties
- Target: landowners, tenants, lenders, other ag professionals.
- Anyone can participate

NASS

- Actual Cash Rent paid for irrigated and non-irrigated cropland, pastureland
- Mail and telephone
- Collection: Feb-July
- Report: August
- County-level stratified design
- Reconciled with state average
- Target: 240,000 farms and ranches that have historically rented land on a cash basis.
- Counties with 20,000 acres of cropland+pasture.

2016 Cash Rents by Land Quality Type: Low, Med, High Avg. Yields (5 years)



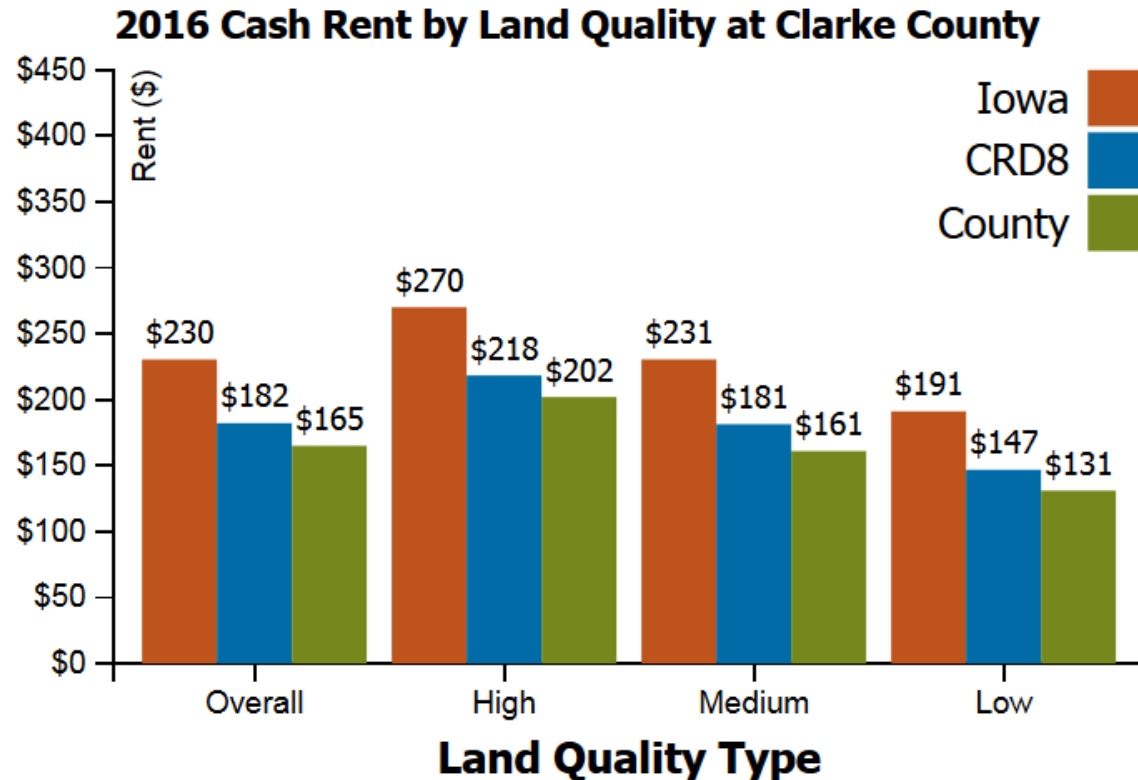
Black Hawk Co (crd3):

- High Q: \$290
 - Med Q: \$251
 - Low Q: \$182
-
- Hi-Low= \$108 (59%)

2016 Cash Rents by Land Quality Type: Low, Med, Hi Avg. Yields (5 years)

Clarke Co (crd8):

- High Q: \$202
- Med Q: \$161
- Low Q: \$131
- Hi-Low= \$71 (54%)



What variables affect overall trends in cash rents?

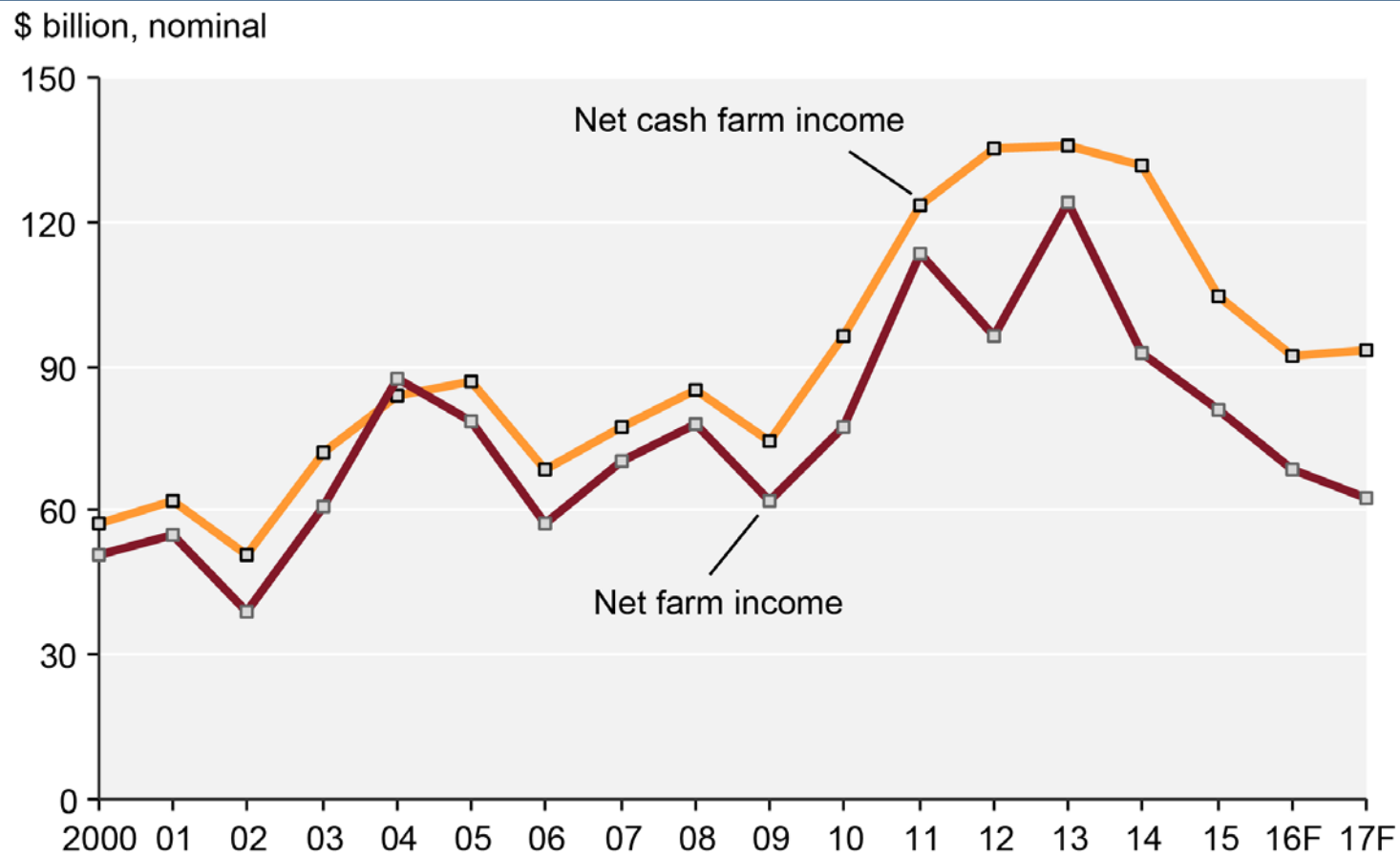
- From the producer perspective:
 - Ethanol plants
 - Net Farm Income
 - Profit margins on rented land
 - Land values and Credit access (purchase instead of rent)
 - Other

What variables affect overall trends in cash rents?

- From the landowner perspective:
 - Land values
 - Return on investment in bonds, CDs, etc.
 - Household income (farm and non-farm)
 - Property taxes
 - Mortgage payments
 - Other

Net farm income and net cash farm income, 2000-2017F

2017 US
Net
Farm
Income
↓8.7%

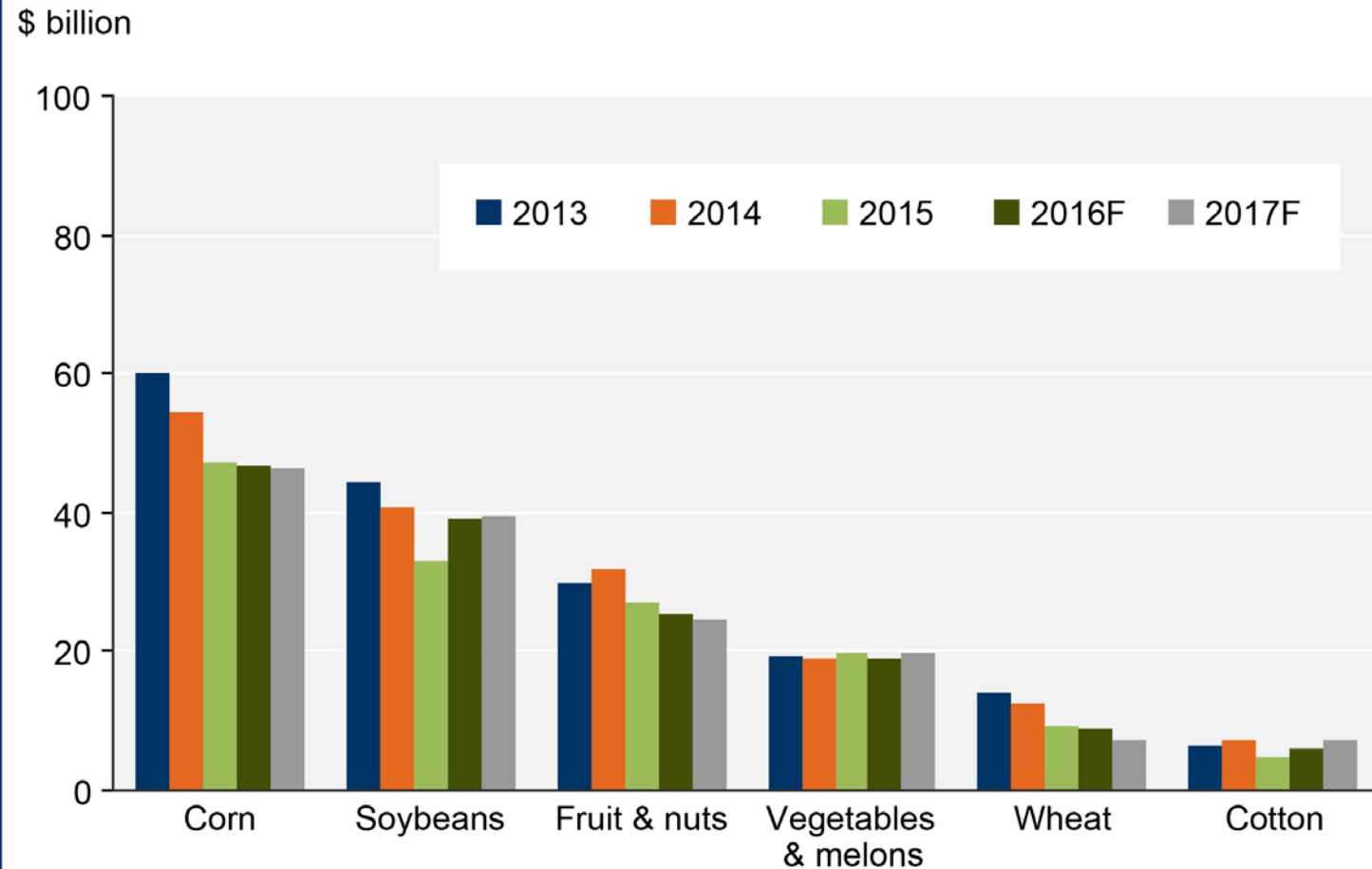


Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.
Data as of February 7, 2017.

US Cash Receipts

U.S. cash receipts for selected crops, 2013-2017F



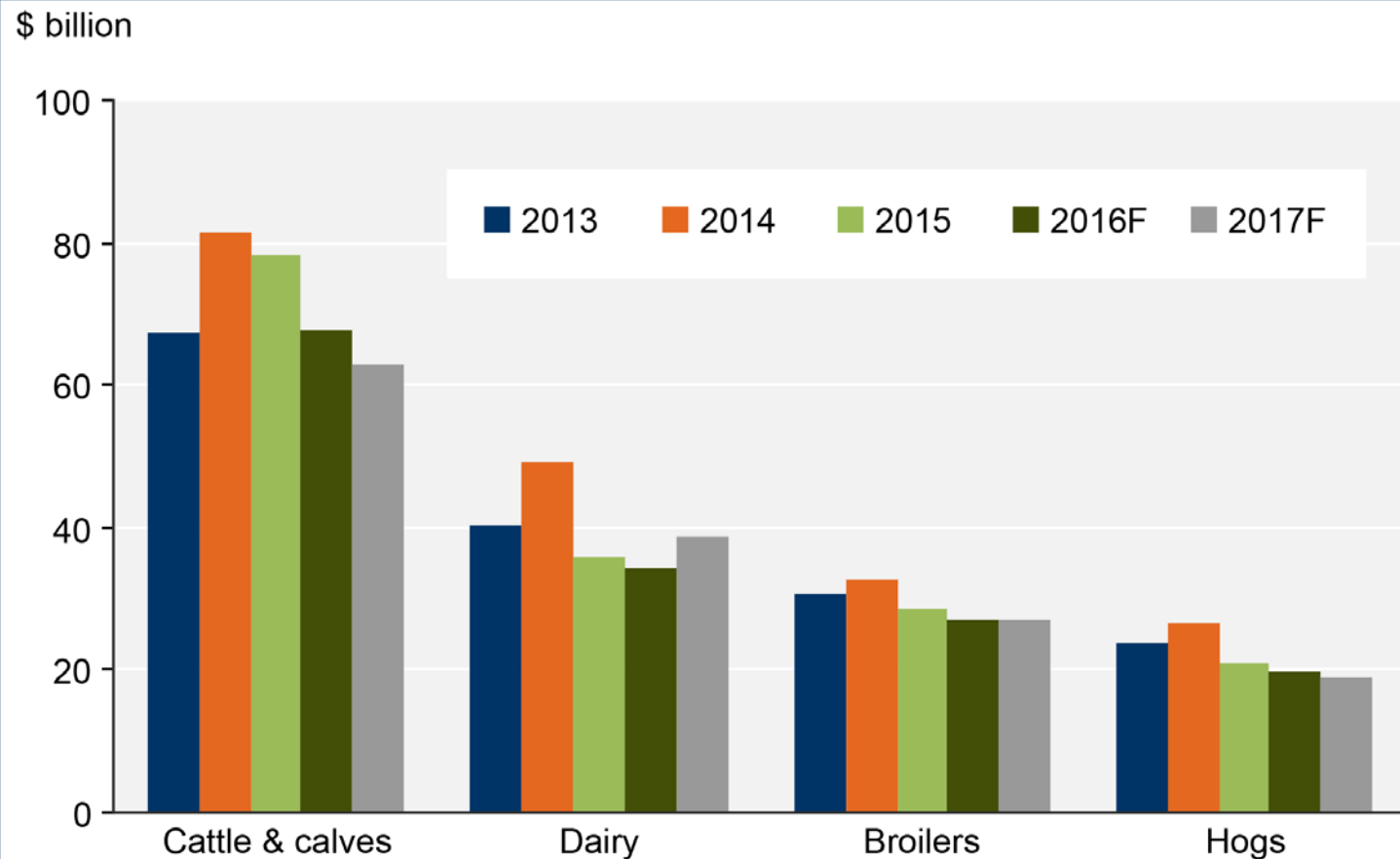
Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 7, 2017.

US Cash Receipts

U.S. cash receipts for selected animals/products, 2013-2017F

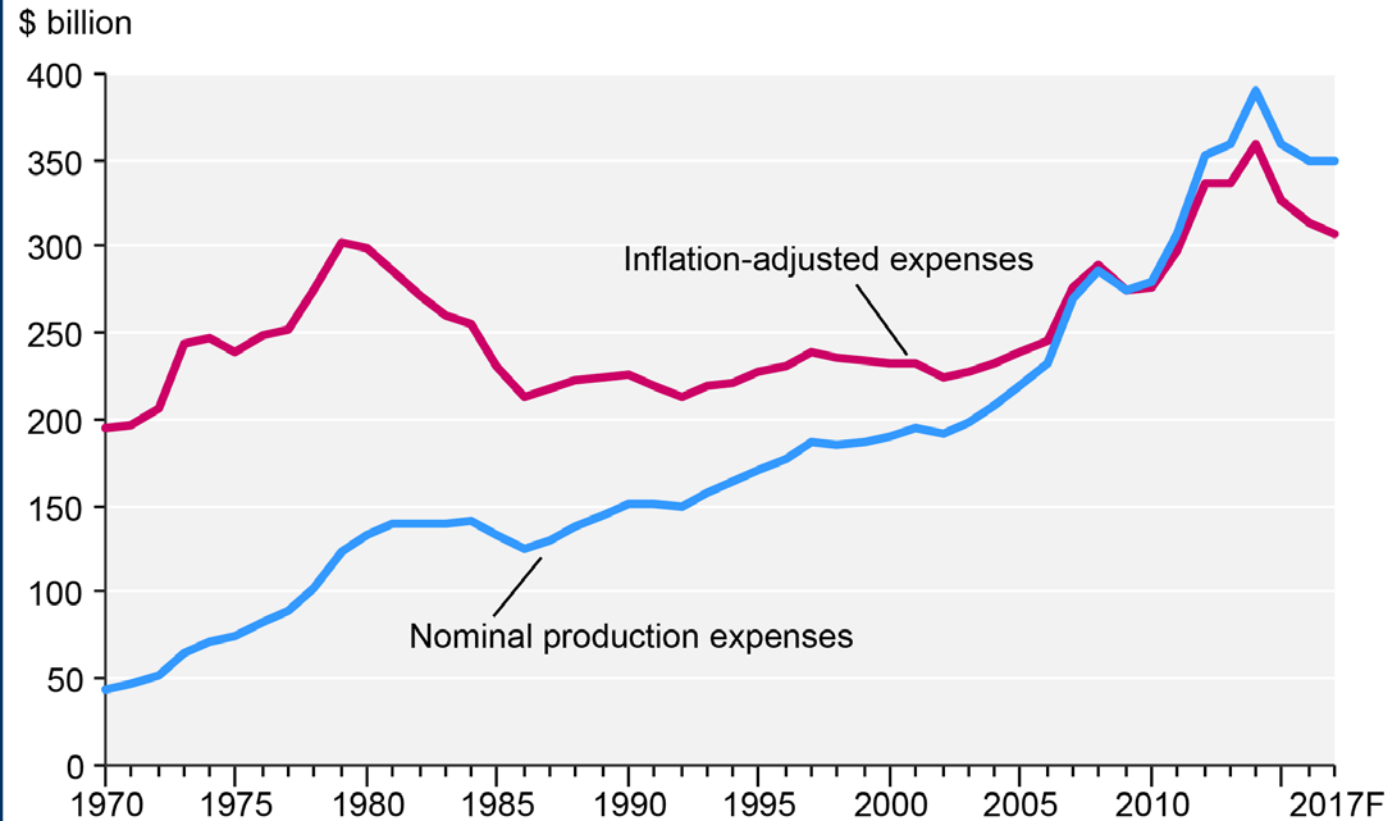


Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.
Data as of February 7, 2017.

US Farm Production Expenses

Nominal and inflation-adjusted farm production expenses, 1970-2017F



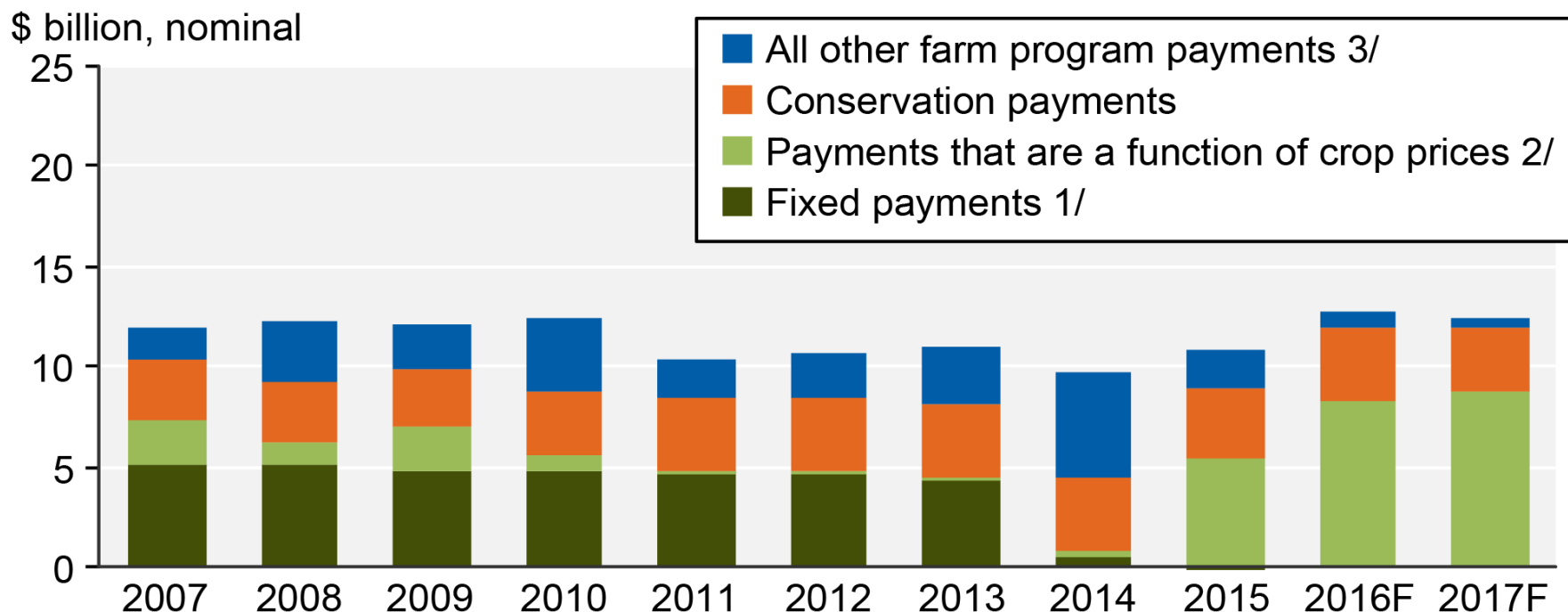
Note: F = forecast; data for 2016 and 2017 are forecasts. Values are adjusted for inflation using the chain-type GDP deflator, 2009=100.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 7, 2017.

Government farm program payments to farm producers, 2007-2017F

ALL US AGRICULTURE



Note: F = forecast.

1/ Includes direct fixed payments portion of Direct and Counter-Cyclical Program (DCP) and Cotton Transition Assistance Program (CTAP) payments. CTAP was designed to make payments only in 2014 and 2015.

2/ Includes counter-cyclical payments (CCP), average crop revenue election (ACRE) payments, loan deficiency payments, marketing loan gains, and certificate exchange gains. The certificate exchange program (CEG) ended after making payments for the 2009 crop year but was restored beginning with the 2015 crop year. CCP and ACRE were not continued in the 2014 Farm Bill. Price loss coverage (PLC) and agricultural risk coverage (ARC) payments began in 2015.

3/ All other payments include supplemental and ad hoc disaster assistance, tobacco transition, and dairy programs.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 7, 2017.

ARC/PLC Projected Payments

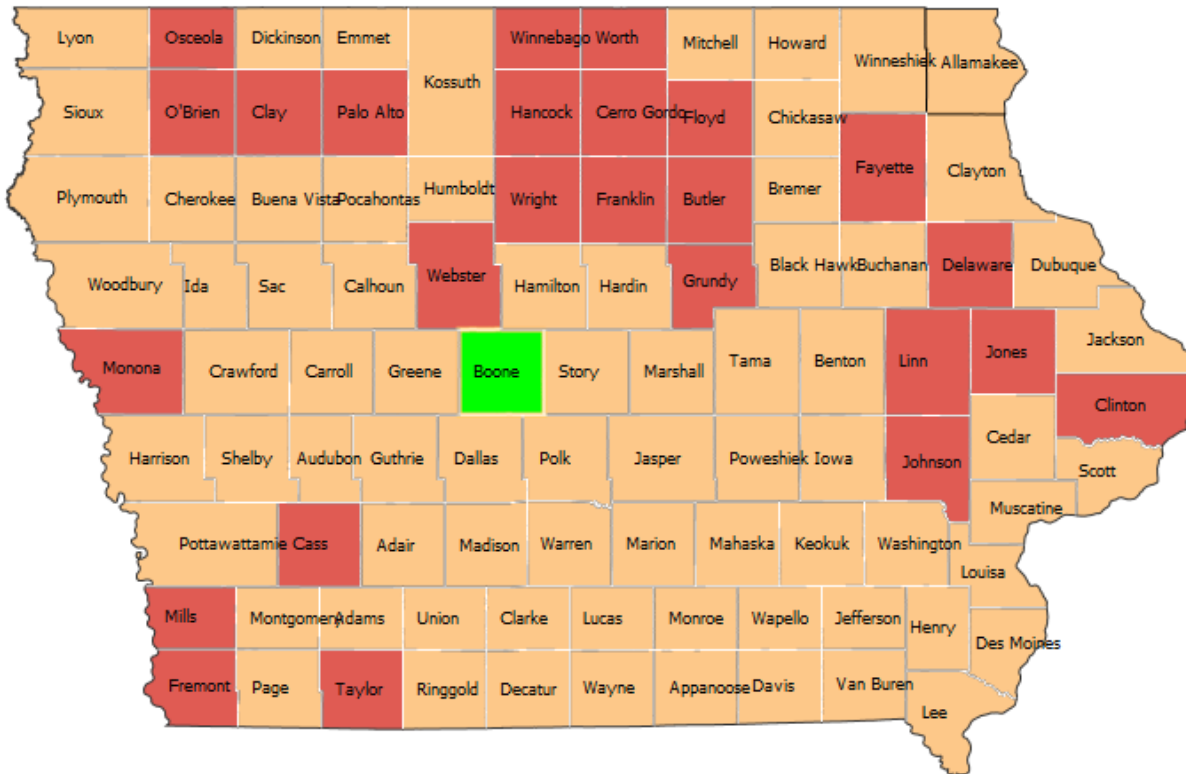
- **Last updated:** 03-21-2017
- **Prices updated:** 03-09-2017
- **Yields:** 2014/15 and 2015/16 ARC-CO payments use Official FSA Yields updated 10-14-2016; 2016/17 ARC-CO payment use Official NASS yields updated 02-23-2017.

<https://www.extension.iastate.edu/agdm/info/farmbill.html>

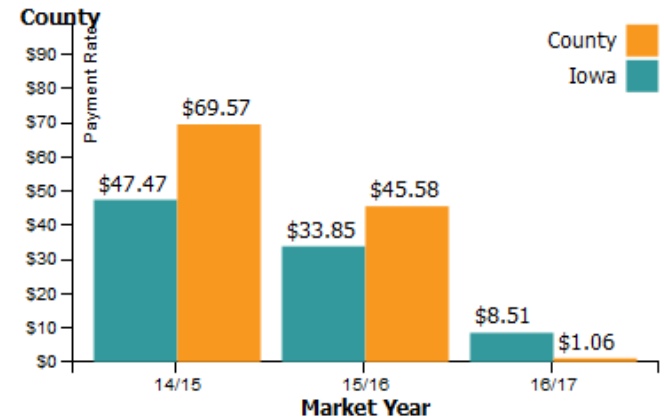
<http://card.iastate.edu/tools/farm-bill/arc-plc/>

ARC-CO CORN Proj. Payments Oct 2017 (for 2016/17)

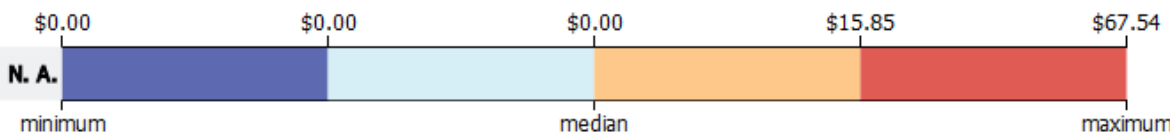
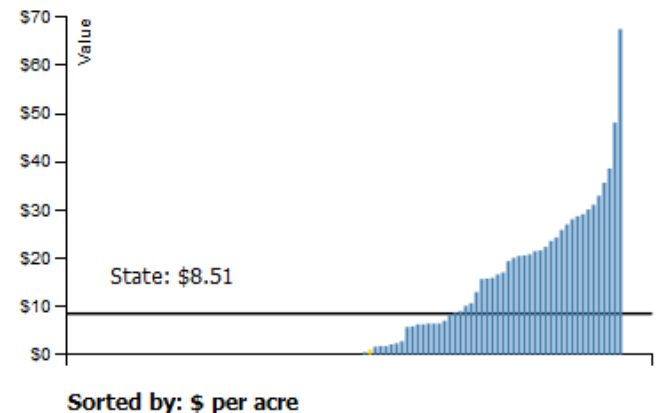
Projected ARC-CO payments per Corn base acre in 2016/17



Projected ARC-CO payments per Corn base acre in Boone



Projected ARC payments per Corn base acre in 2016/17

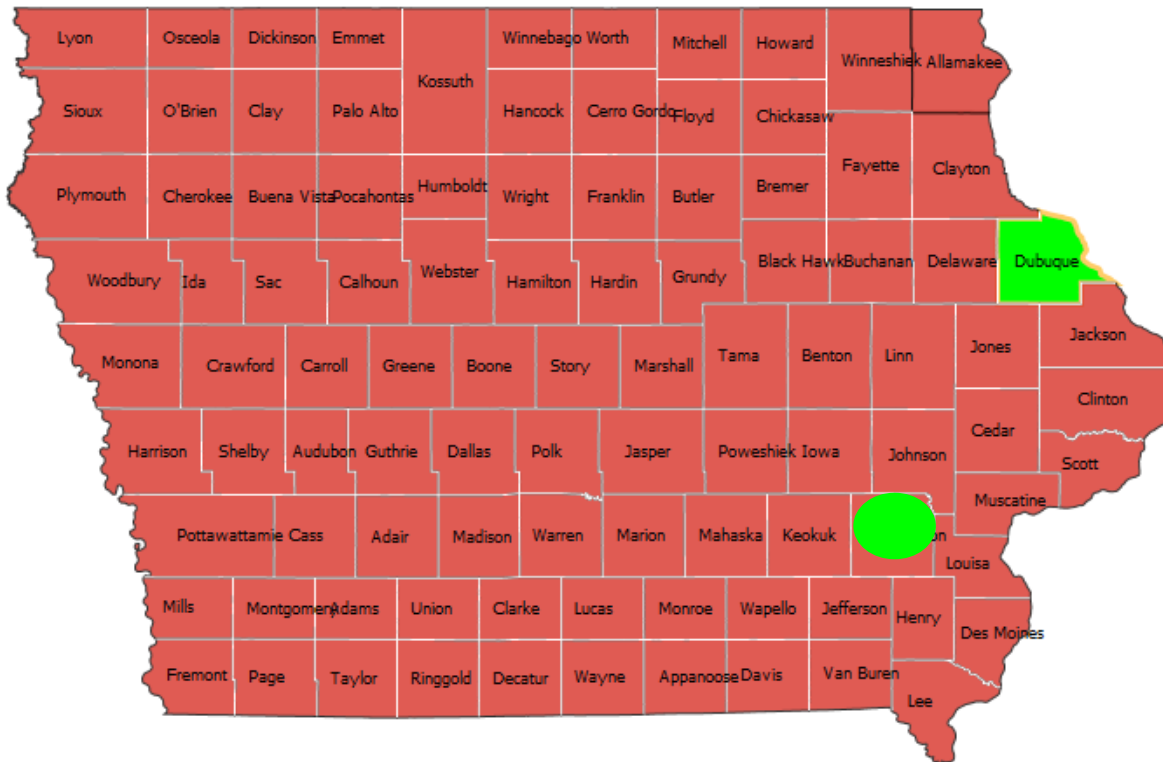


ARC-CO CORN Proj. Pmts.

- State Average: \$8.43
- >\$20: 21 counties
- >\$30: 7 counties:
 - Grundy \$48
 - Johnson \$68
 - Mills \$39
 - Palo Alto \$30.1
 - Webster \$33
 - Wright \$36

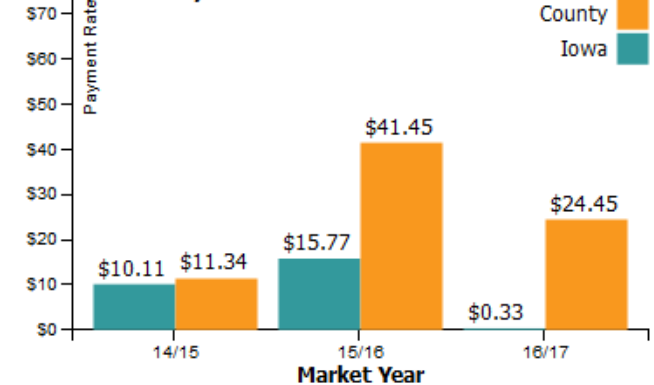
ARC-CO BEANS Proj. Pmts. Oct 2017 (for 2016/17)

Projected ARC-CO payments per Soybean base acre in 2016/17

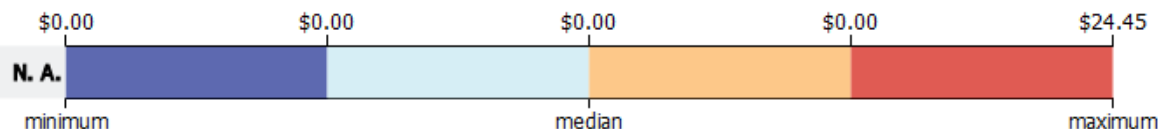


Projected ARC-CO payments per Soybean base acre in

Dubuque County



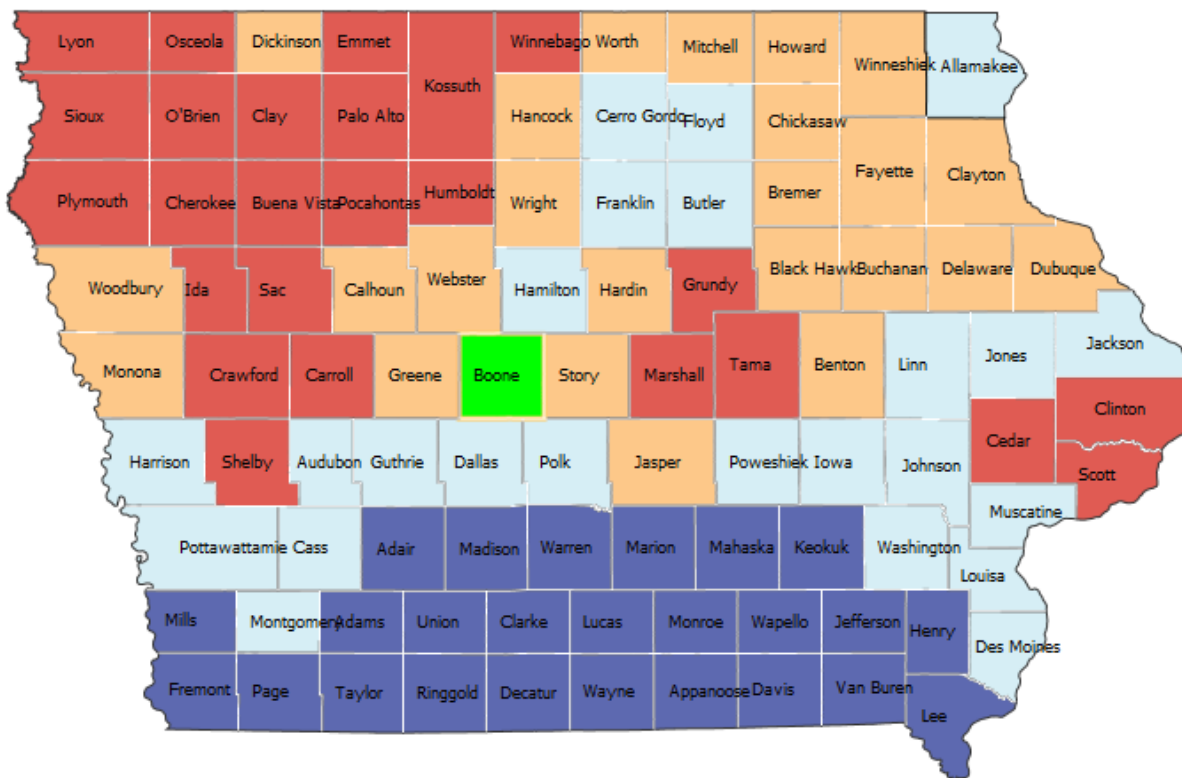
- Dubuque \$19.86
- Washington \$2.72



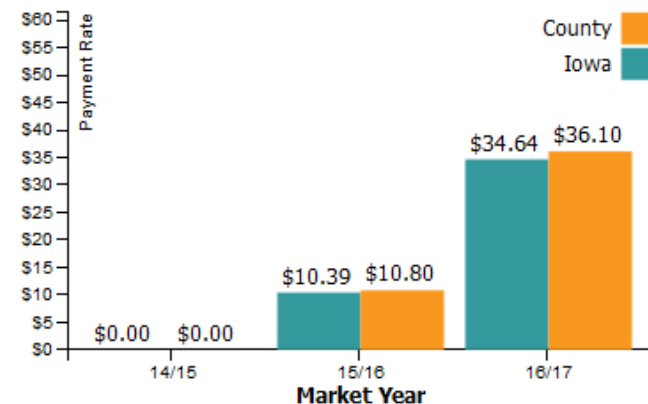
PLC CORN Proj. Pmts

Oct 2017 (for 2016/17)

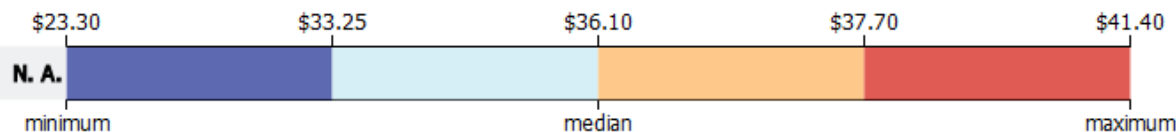
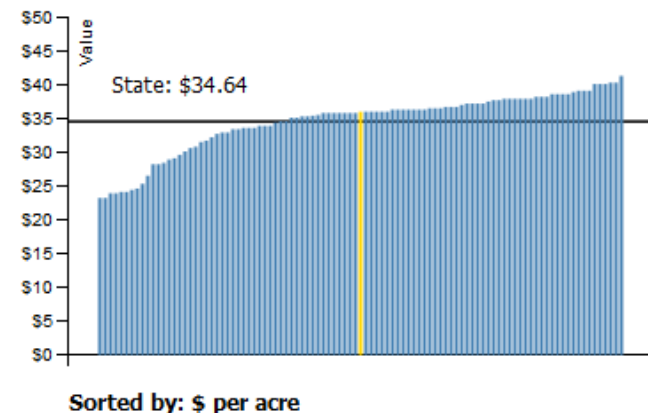
Projected PLC payments per Corn base acre in 2016/17



Projected PLC payments per Corn base acre in Boone County



Projected PLC payments per Corn base acre in 2016/17



PLC Projected Payments Oct 2017 (for 2016/17)

CORN:

- ALL counties >\$23 per corn base acre
- State average: \$35
- 1st time: PLC payments > ARC-CO payments

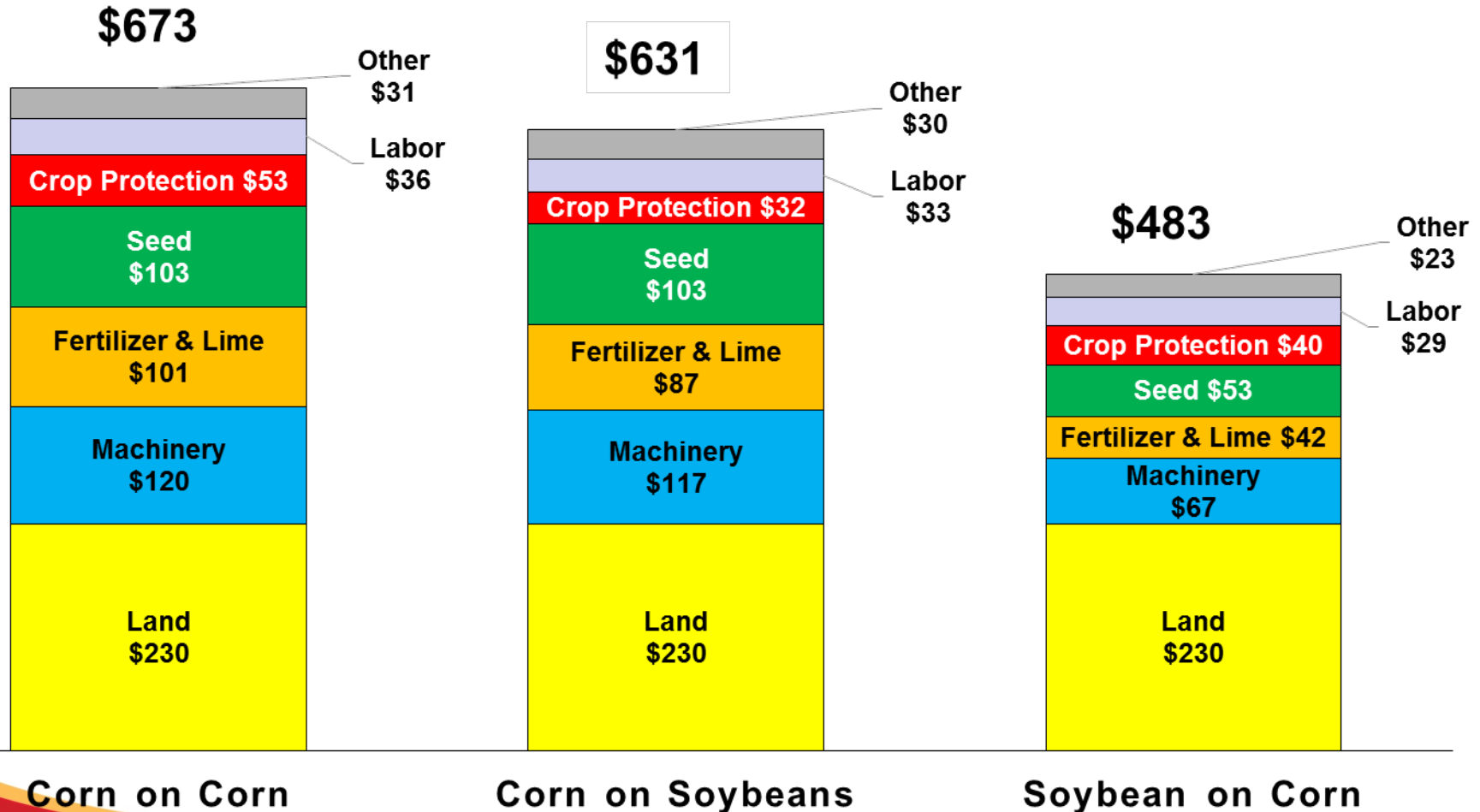
SOYBEANS:

- No payments for 3rd year

What variables affect overall trends in cash rents?

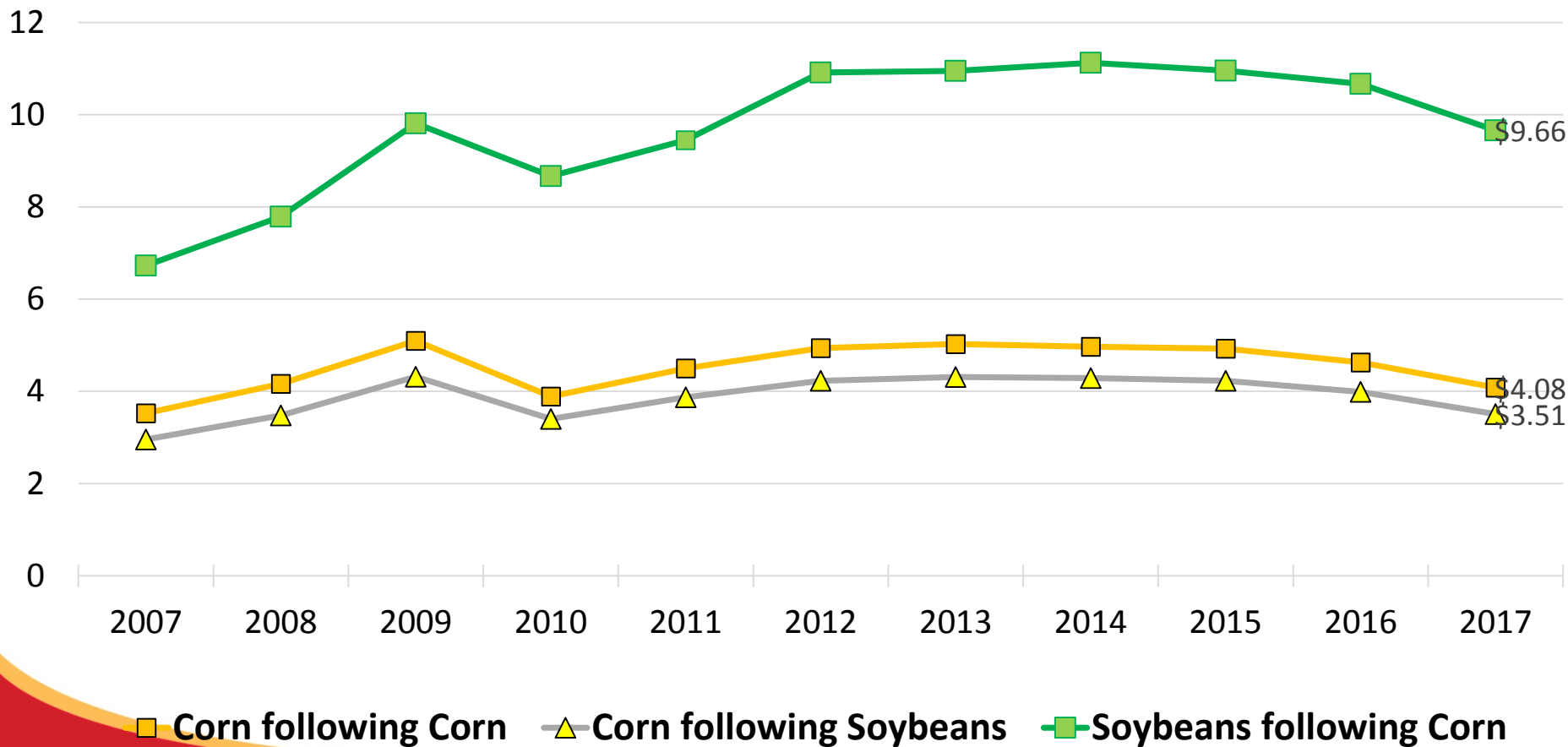
- From the producer perspective:
 - Ethanol plants X Operating at capacity
 - Net Farm Income X Declining in 2017
 - Profit margins on rented land
 - Land values and Credit access (purchase instead of rent)
 - Other

Costs of Crop Production in Iowa 2017 (\$ per acre)



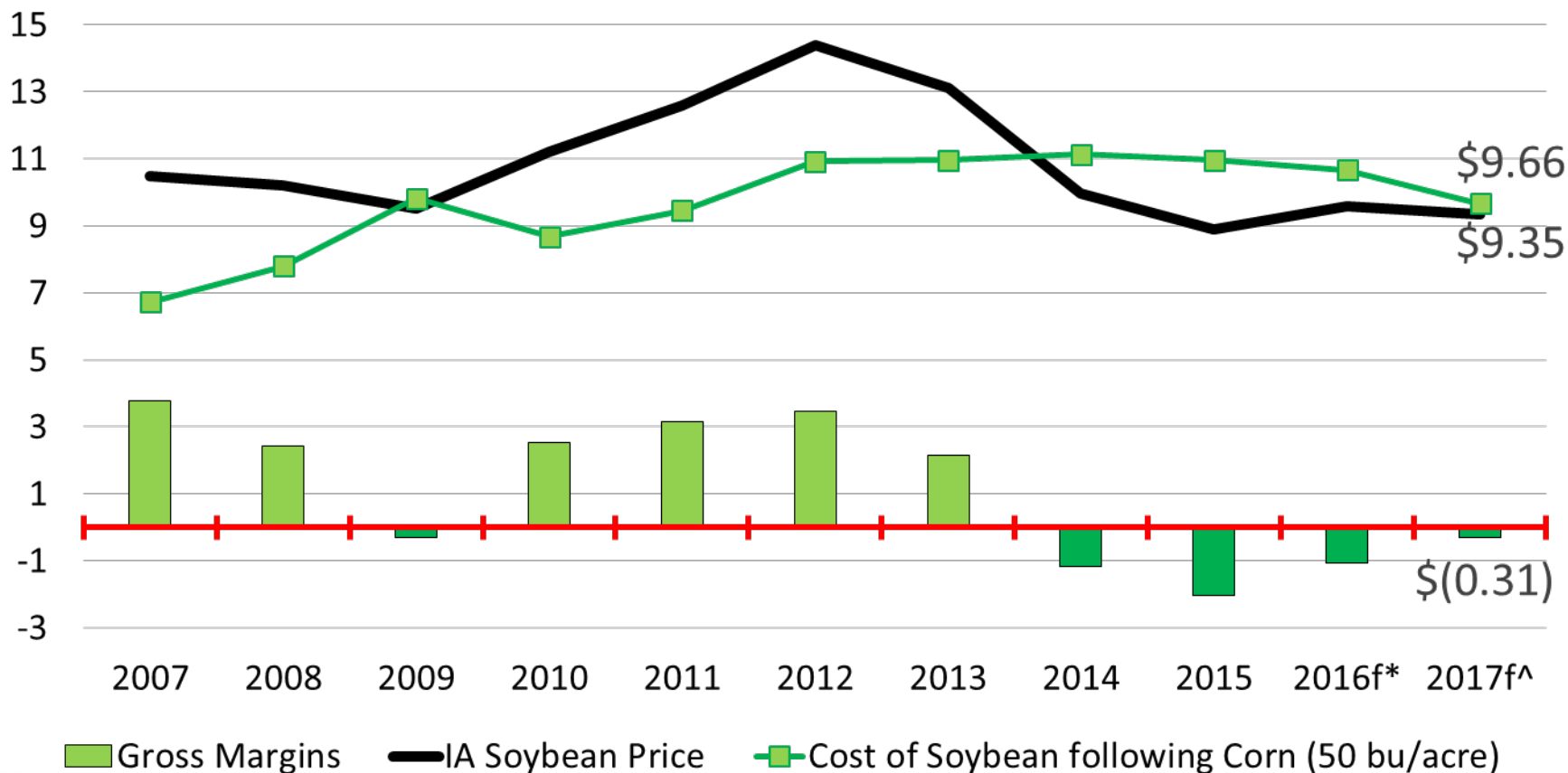
Costs of Crop Production in Iowa

\$ per bushel

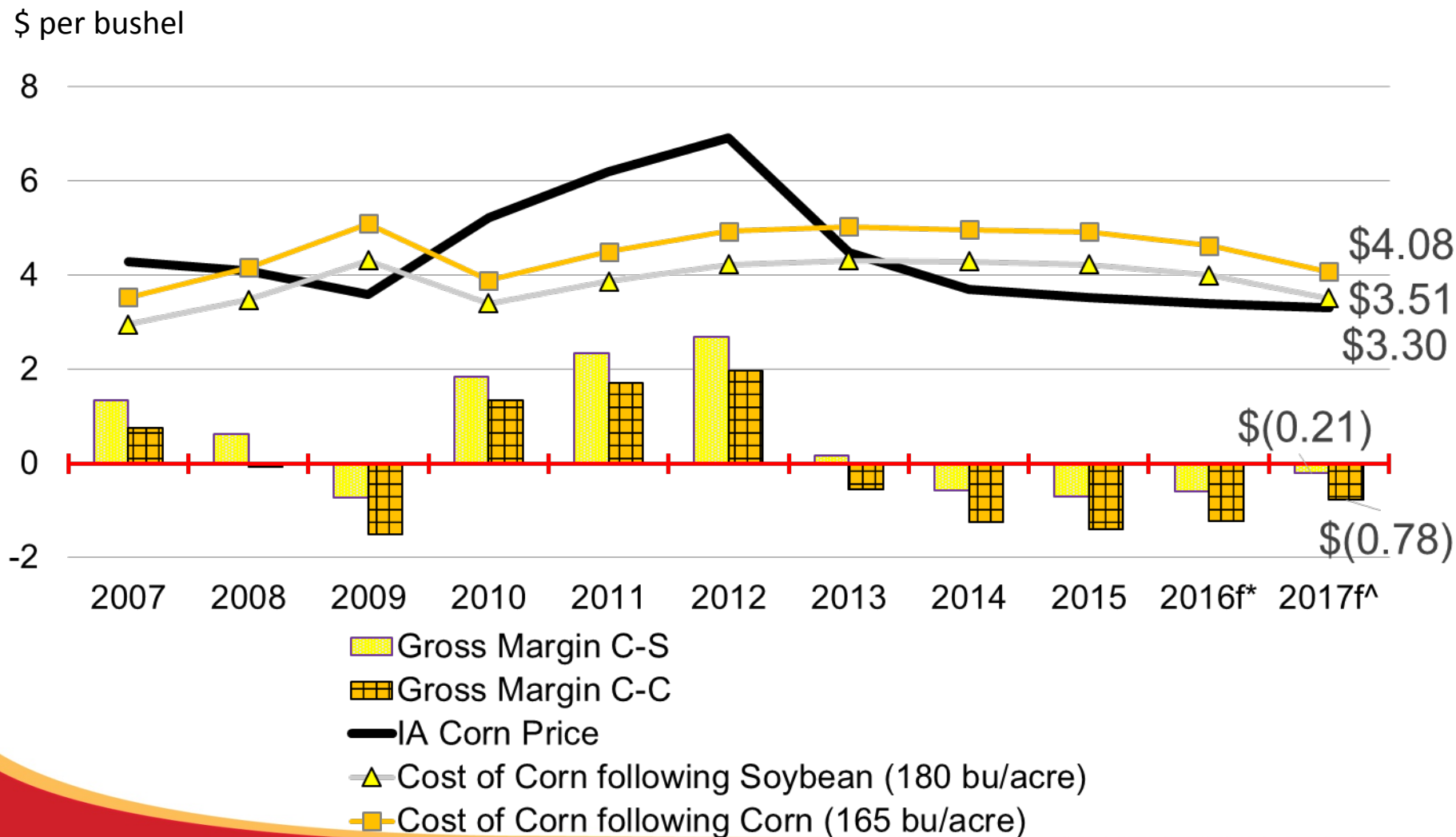


IA Soybeans: Annual Price, Cost, and Gross Margin

\$ per bushel



IA Corn: Annual Price, Cost, and Gross Margin



Breakeven Cash Rents

(accounts for ~\$30/acre labor, but \$0 returns to management)

Cost per acre 2017	Corn on beans	Corn on corn	Soybeans
Target Yields	160-200 bu	145-185 bu	45-55 bu
Cash Non-land Cost	\$315-\$370	\$355-\$410	\$209-\$220
Non-cash Non-land Cost	\$56-\$61	\$58-\$63	\$38-\$39
Total Non-land Cost	\$371-\$431	\$413-\$473	\$247-\$259
Projected Revenue*	\$528-\$660	\$479-\$611	\$421-\$514
Break-even cash rent	\$157-\$229	\$66-\$138	\$174-\$255

*Corn \$3.30; Soy \$9.35

USDA Long Term Projections. Feb 2017

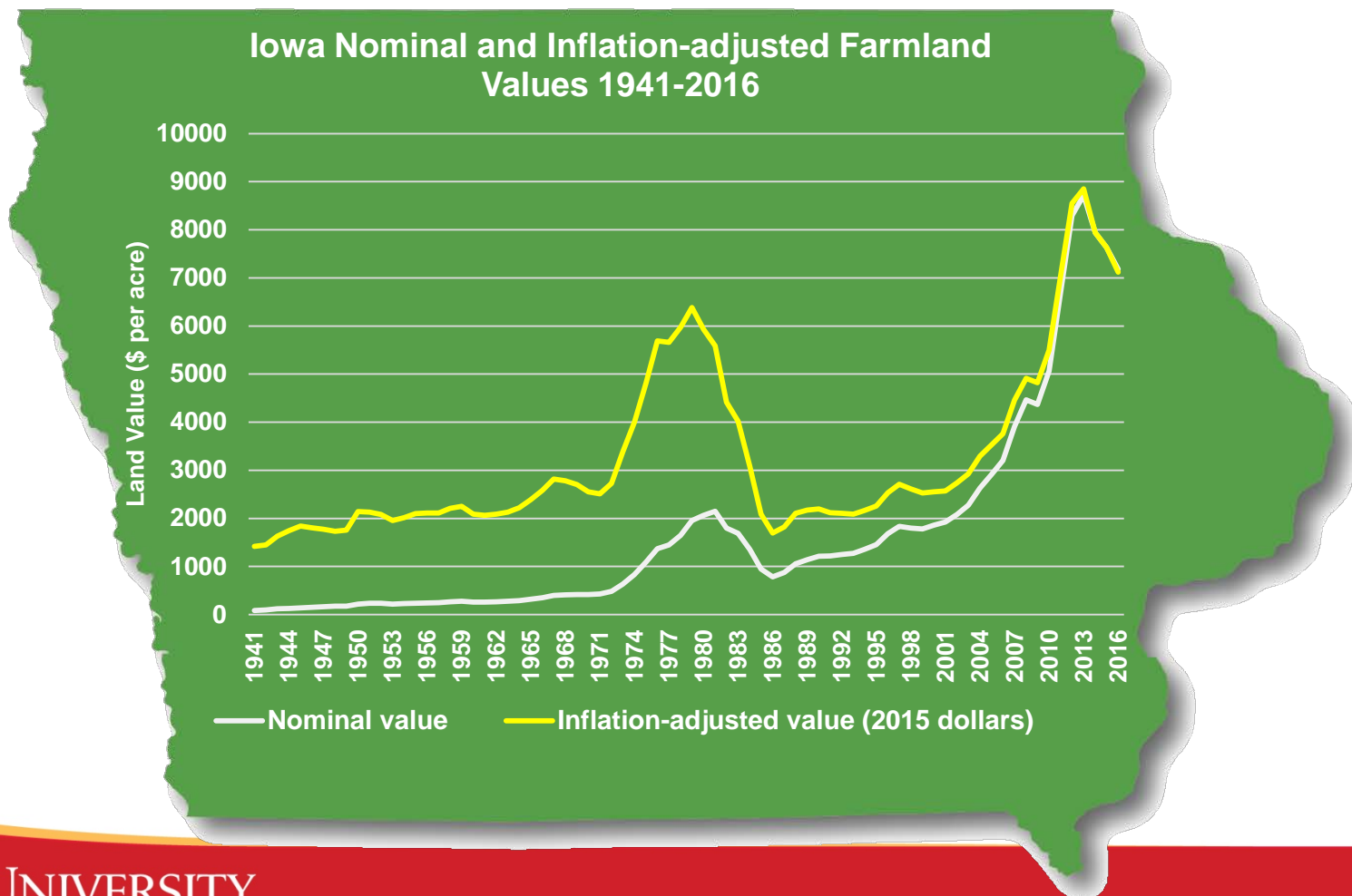
What variables affect overall trends in cash rents?

- From the producer perspective:
 - Ethanol plants X Operating at capacity
 - Net Farm Income X Declining in 2017
 - Profit margins on rented land X Negative
 - Land values and Credit access (purchase instead of rent)
 - Other

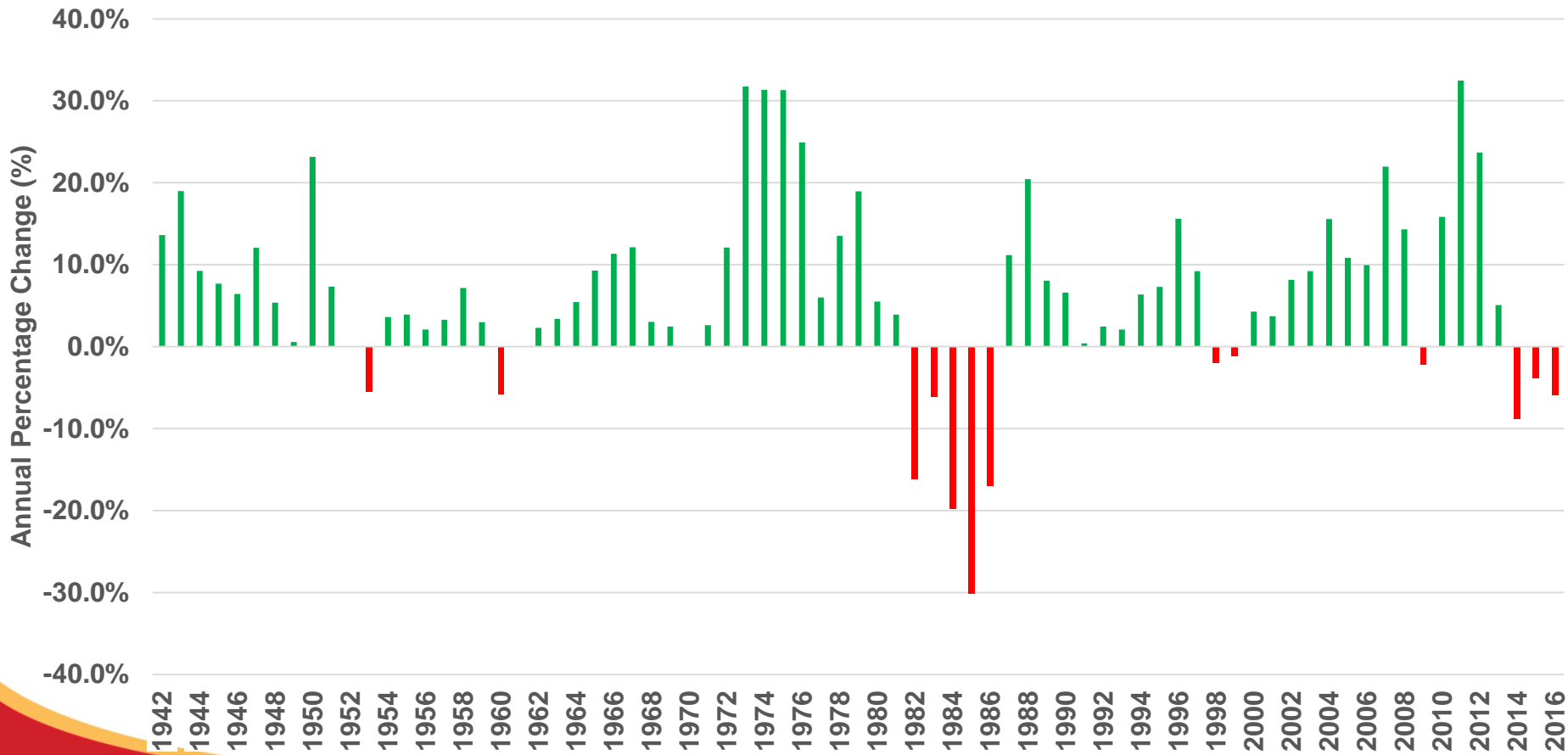
AVERAGE VALUES

all farmland 1941–2016

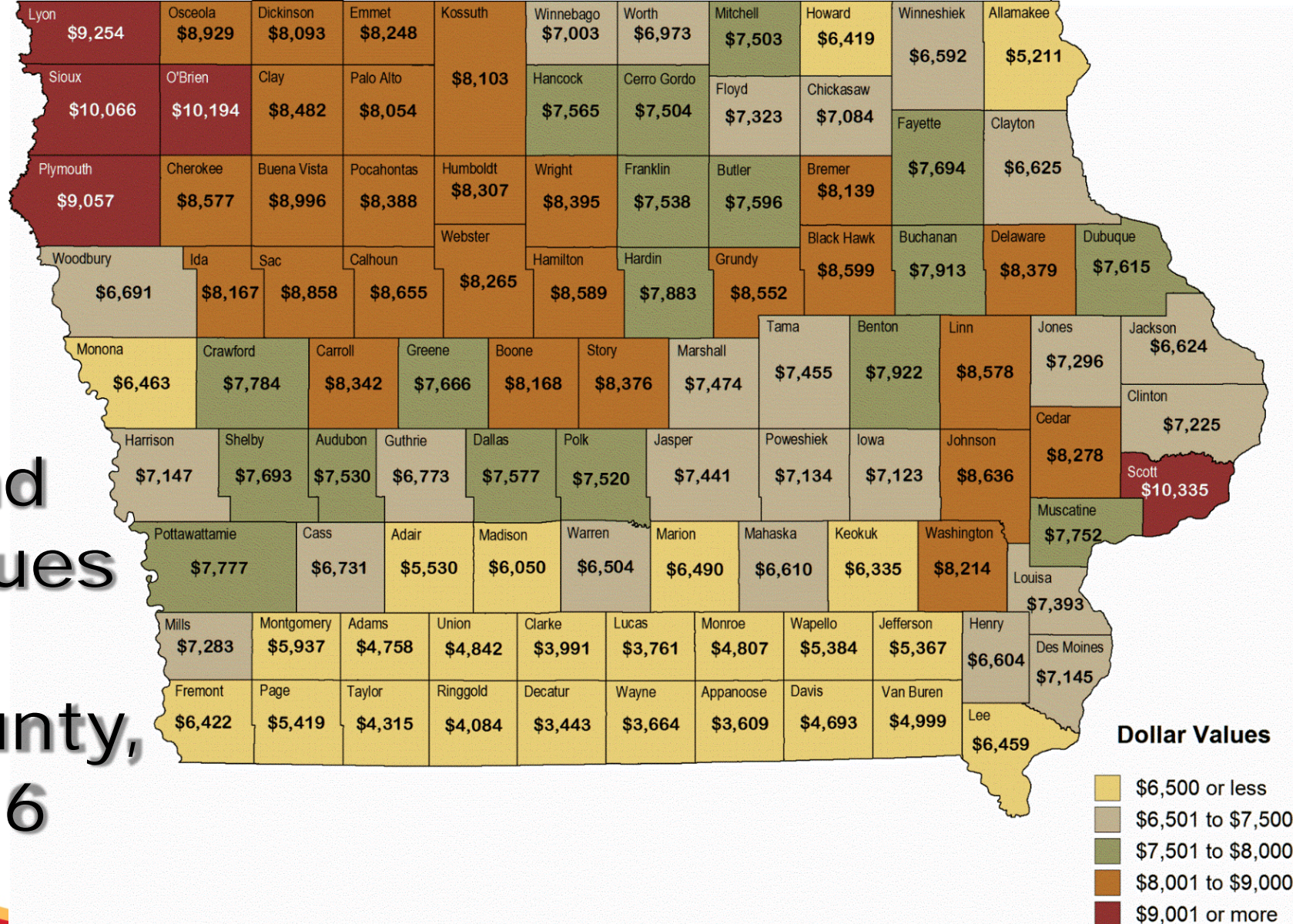
\$7,183
As of
Nov 16
-5.9%



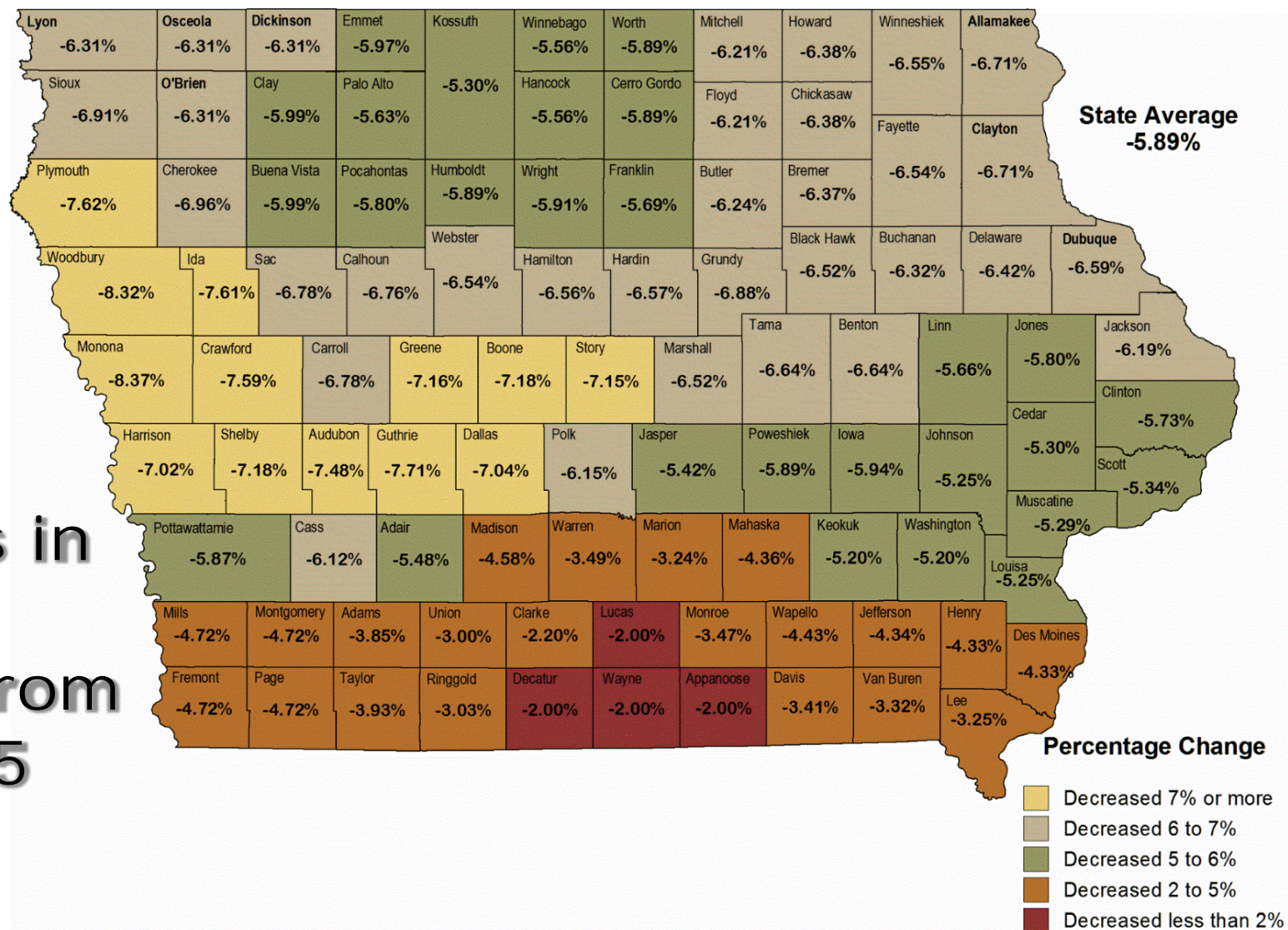
% Change in Nominal Iowa Farmland Values 1942-2016



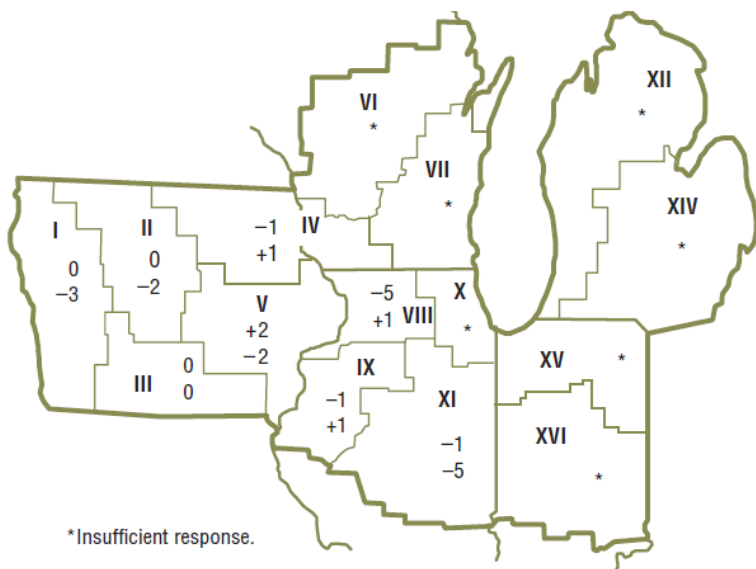
Land Values by County, 2016



Percent Changes in Land Values from Nov 2015



Land Values: 7th District FED-Chicago



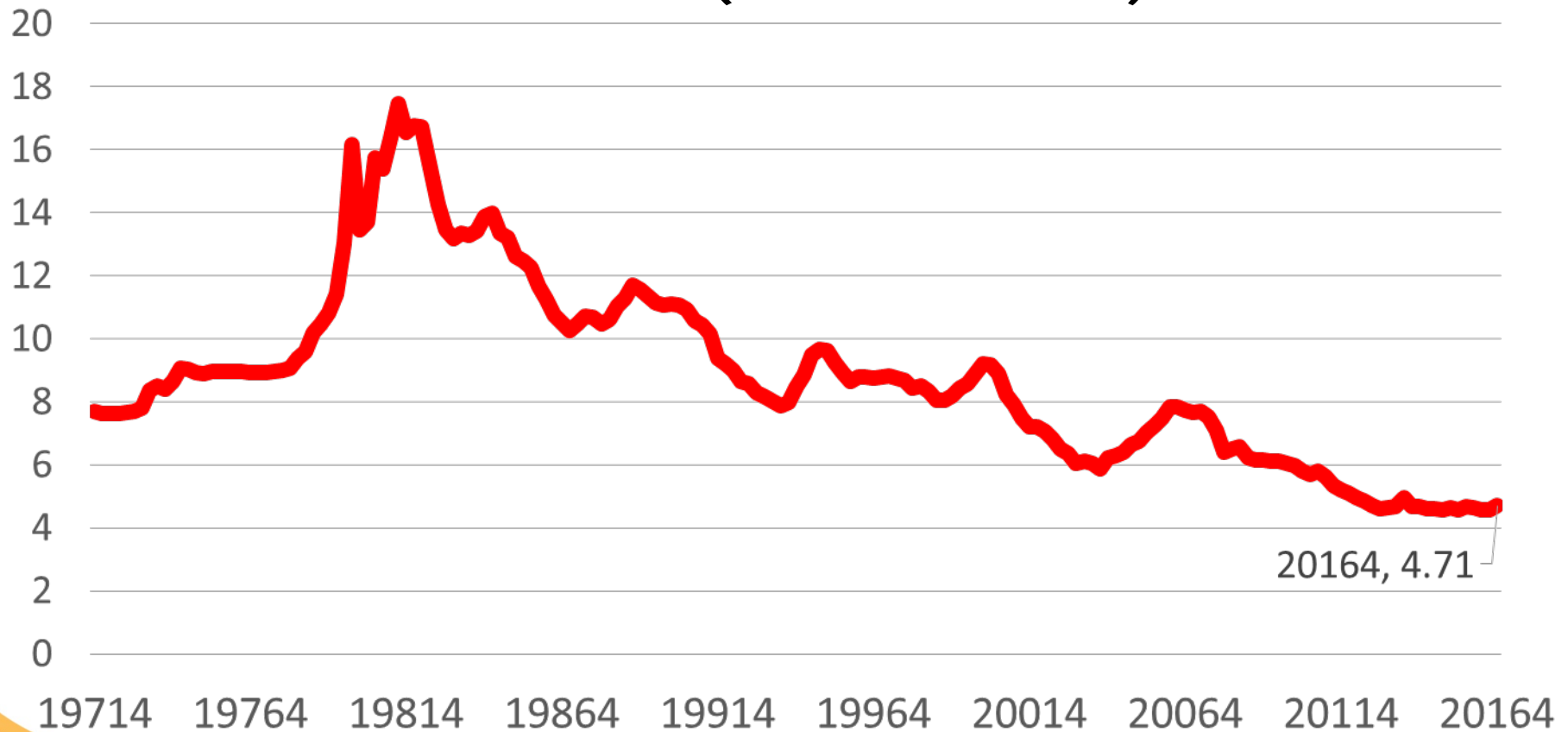
Percent change in dollar value of “good” farmland

Top: October 1, 2016 to January 1, 2017

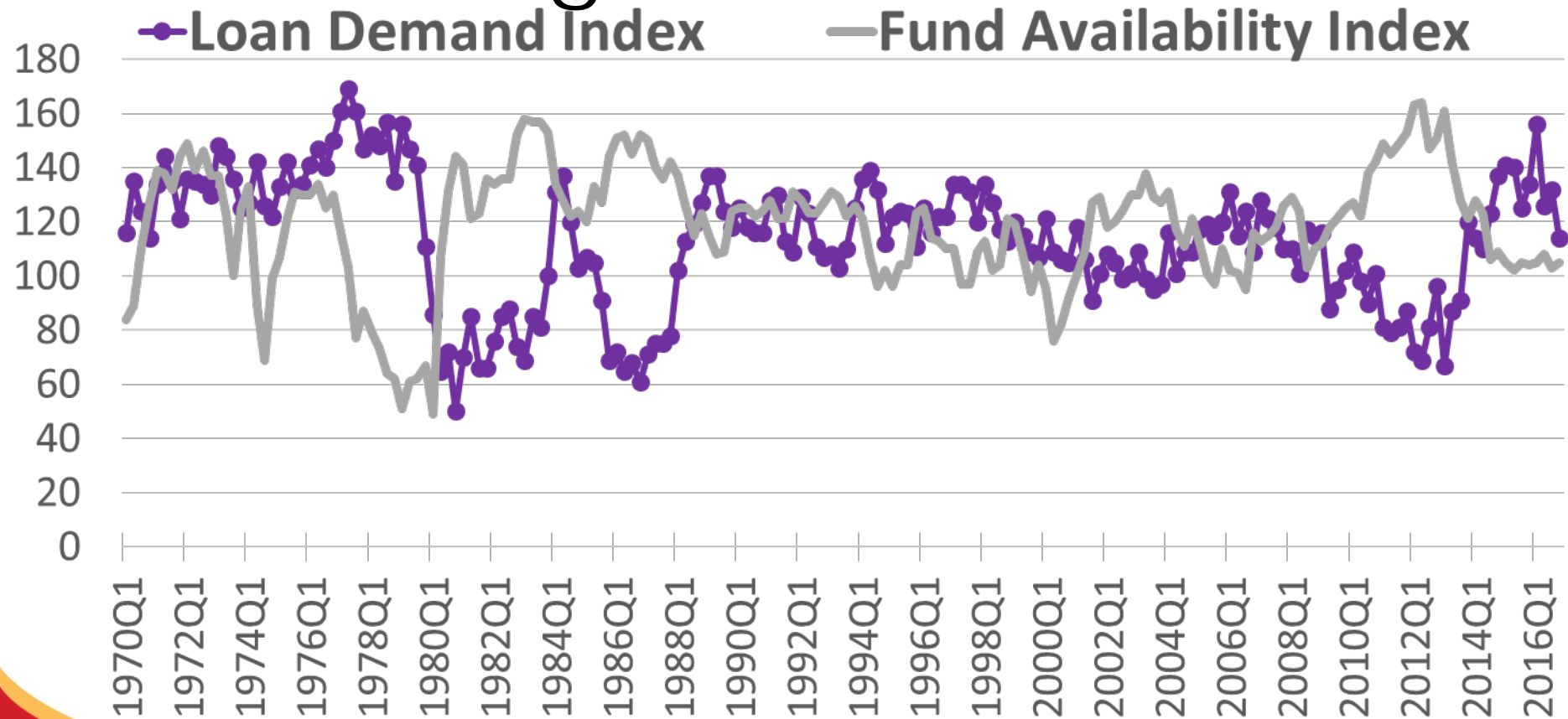
Bottom: January 1, 2016 to January 1, 2017

	<u>October 1, 2016 to January 1, 2017</u>	<u>January 1, 2016 to January 1, 2017</u>
Illinois	-1	-2
Indiana	-2	+2
Iowa	0	-2
Michigan	-1	-8
Wisconsin	-2	+3
Seventh District	-1	-1

Interest Rates for Farm Real Estate Loans (Percent)



Credit Conditions at 7th District Agricultural Banks



What variables affect overall trends in cash rents?

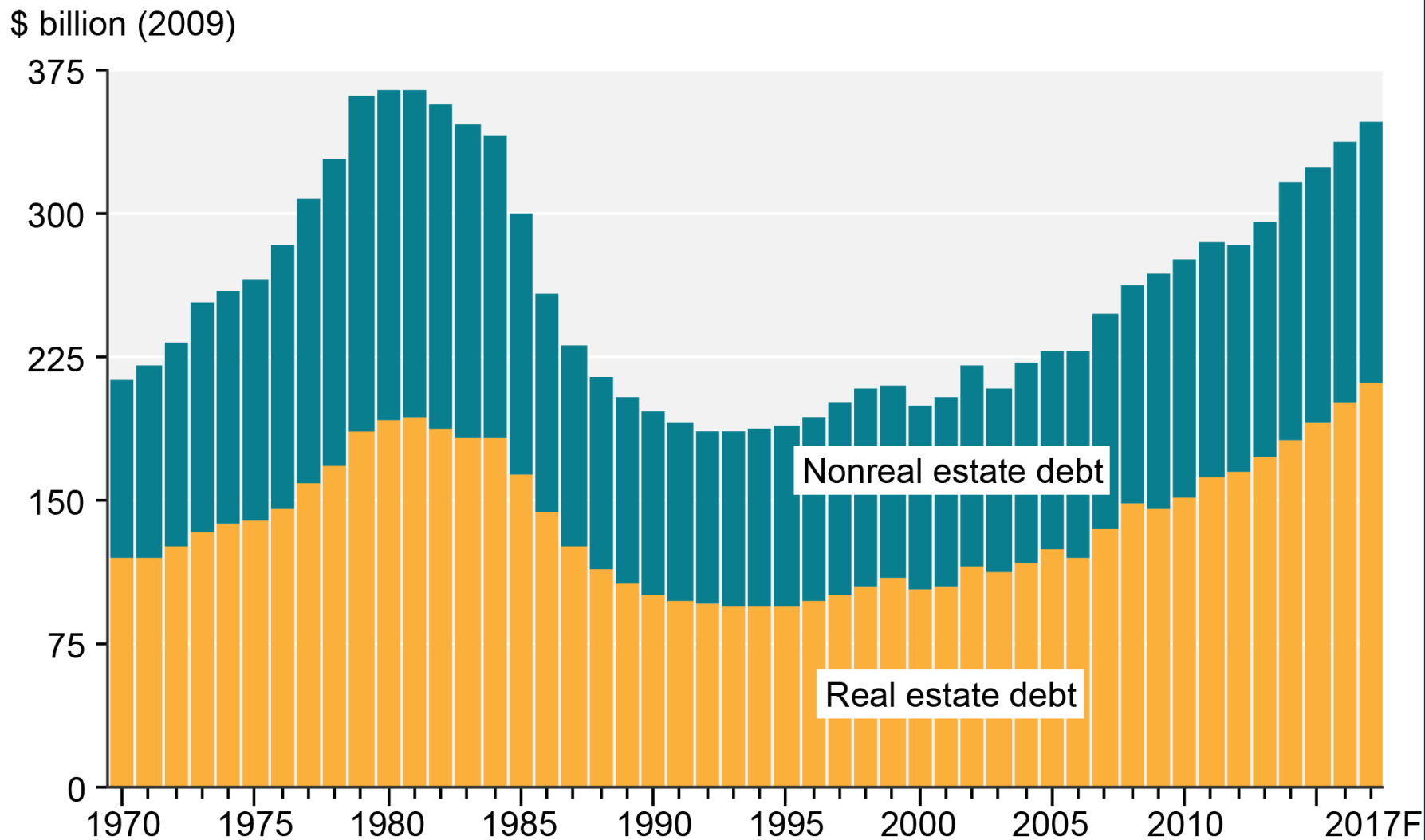
- From the producer perspective:
 - Ethanol plants X Operating at capacity
 - Net Farm Income X Declining in 2017
 - Profit margins on rented land X Negative
 - Land values and Credit access (purchase instead of rent) X Values Declining; X Loan Demand > Available Funds
 - Other

What variables affect overall trends in cash rents?

- From the landowner perspective:
 - Land values **X Values ↓**
 - Return on investment in bonds, CDs, etc.
 - Household income (farm and non-farm)
 - Property taxes
 - Mortgage payments
 - Other

Farm sector debt, inflation adjusted, 1970-2017F

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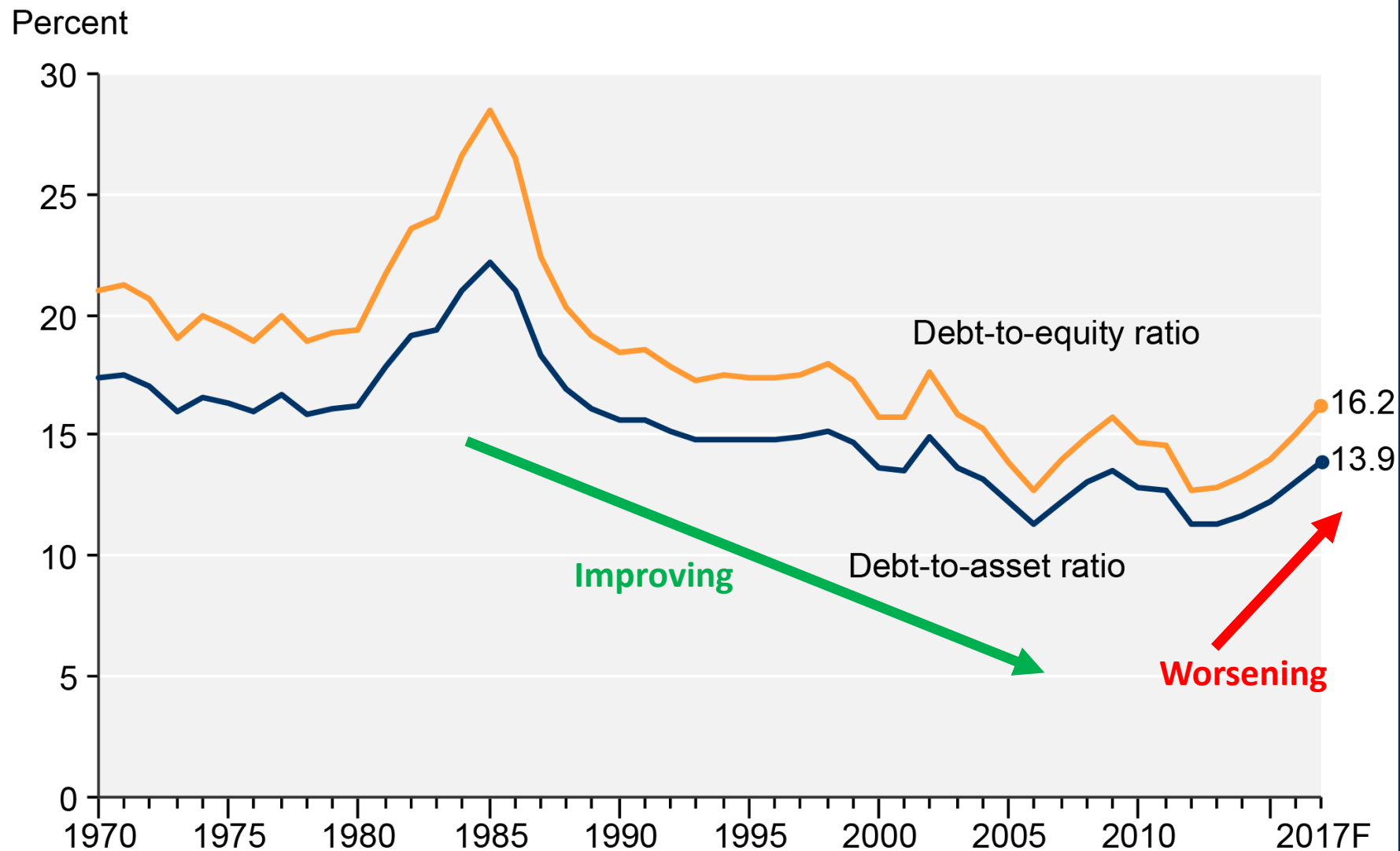
Note: F = forecast. The GDP chain-type price index is used to convert the nominal (current-dollar) statistics to real (inflation adjusted) amounts (2009=100).

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 7, 2017.

Farm sector solvency ratios, 1970-2017F

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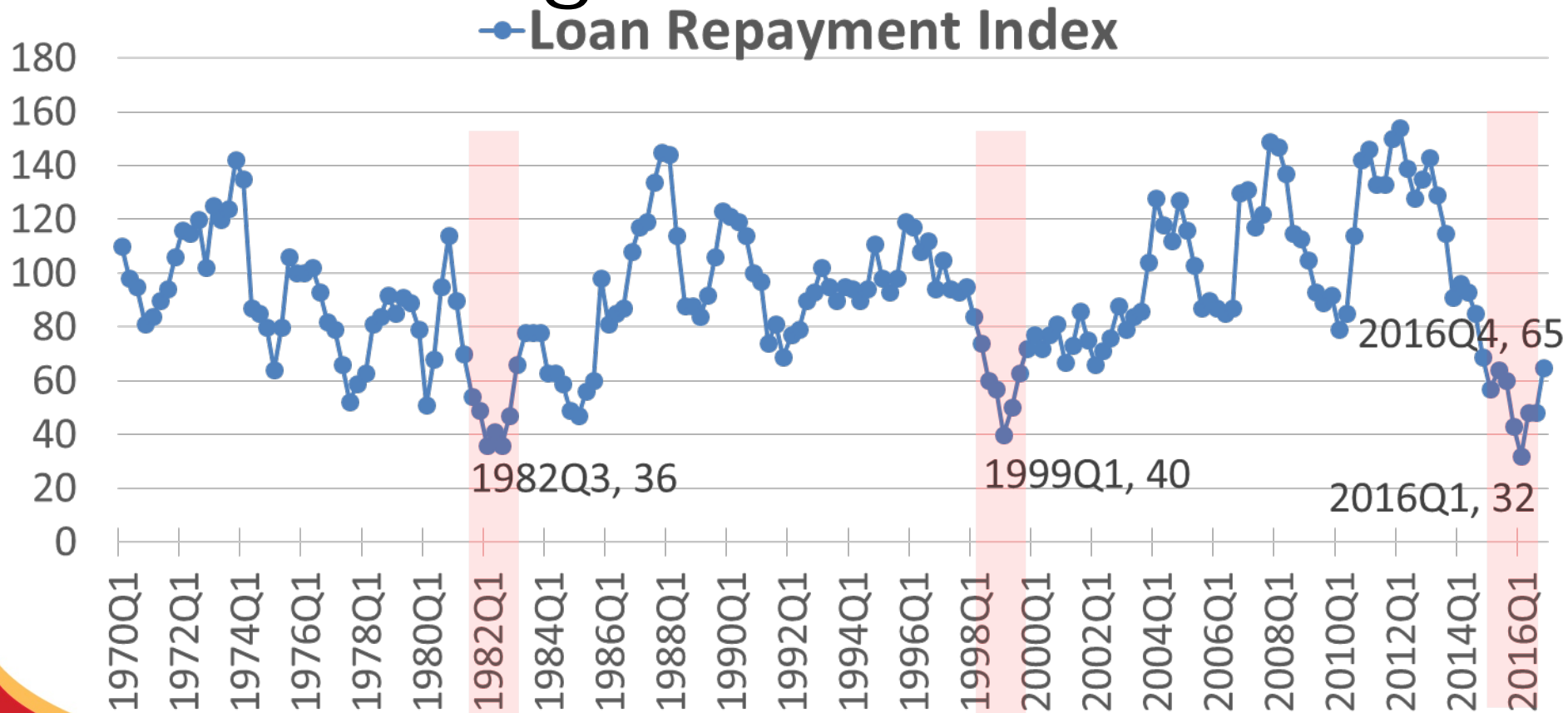


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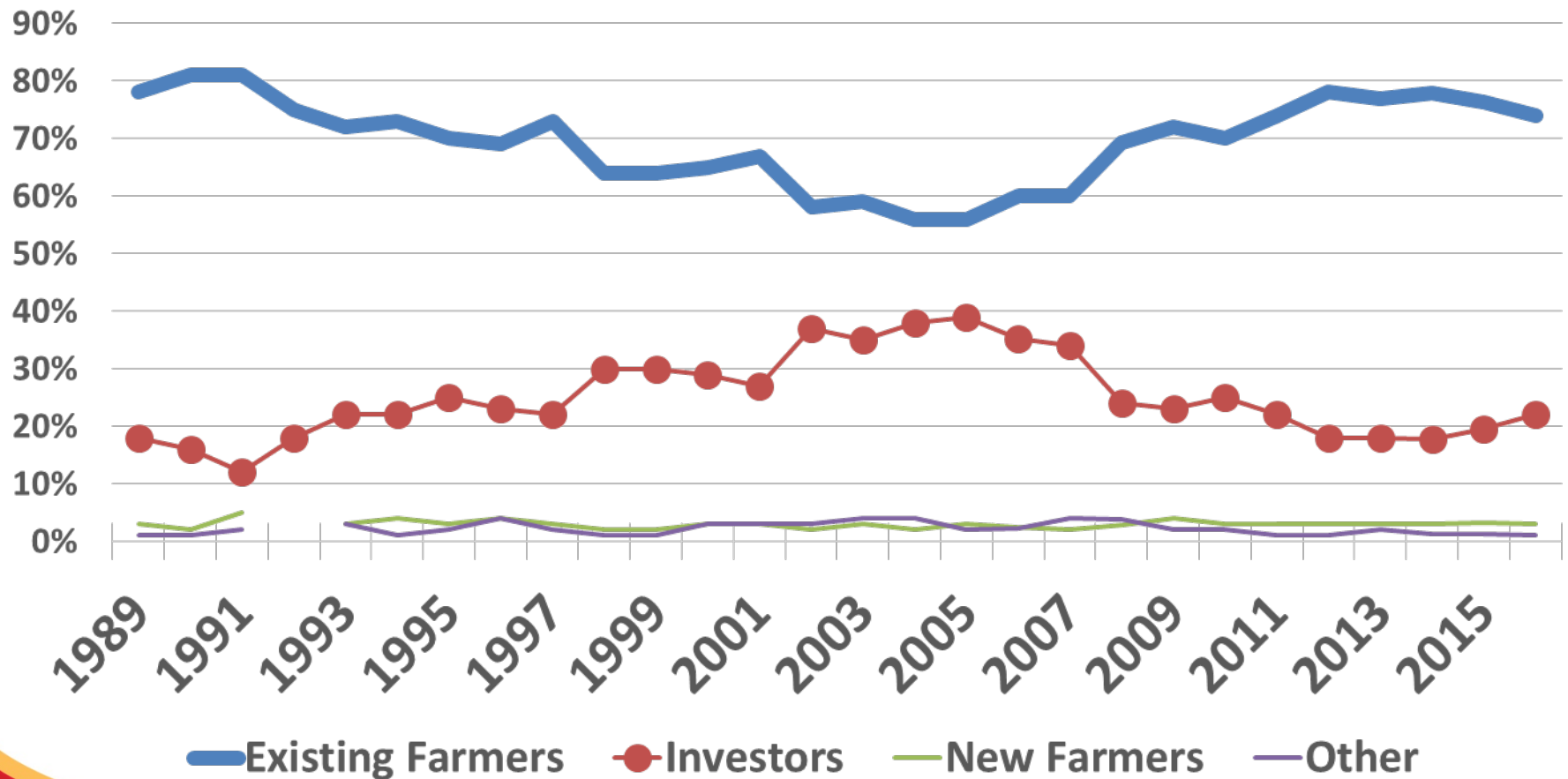
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Data as of February 7, 2017.

Credit Conditions at 7th District Agricultural Banks

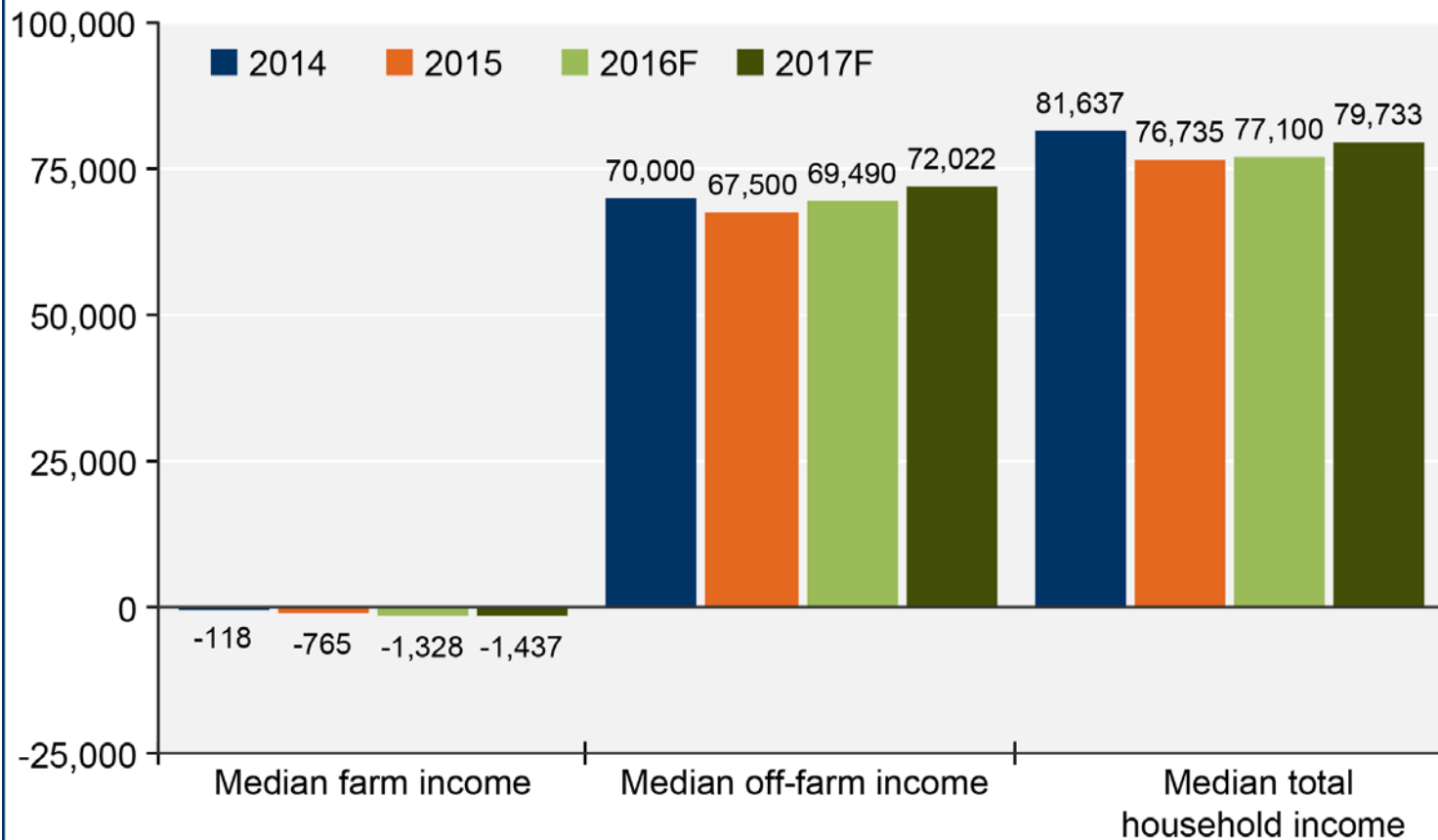


Iowa Farmland Purchases by Buyer Types 1989-2016



Median farm income, median off-farm income, and median total income of farm operator households, 2014-2017F

Dollars (nominal)



Note: F = forecast.

Source: USDA, Economic Research Service and National Agricultural Statistics Service, Agricultural Resource Management Survey. Data as of February 7, 2017.

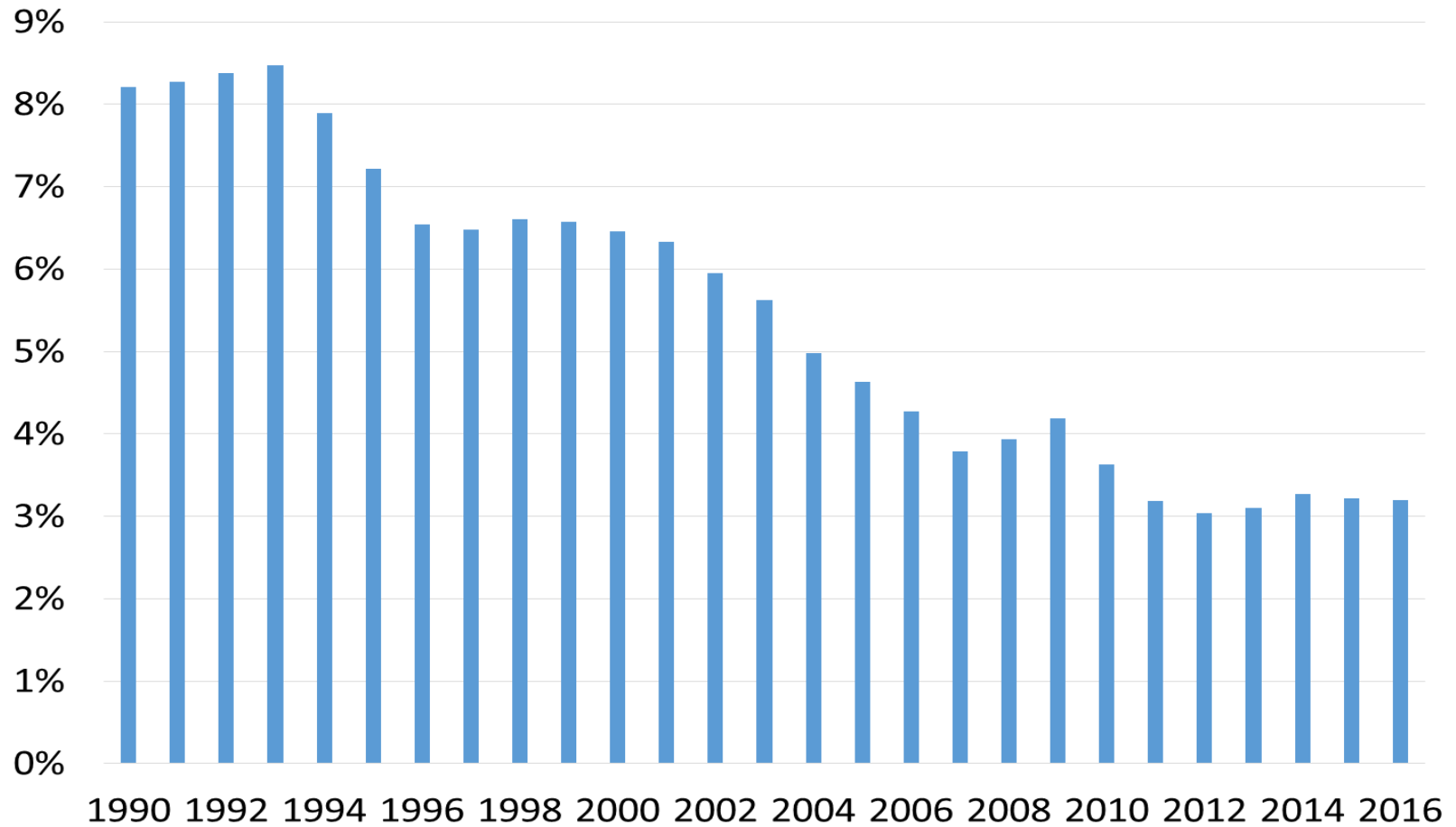
US Farm
Operator
Households:
Negative
Farm Income
for 4th year in
a row

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Extension and Outreach

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Cash Rent / Land Value in Iowa



ROI in High Quality Bonds (Maturity 30 years)

The Treasury High Quality Market (HQM)
Corporate Bond Yield Curve



Source: US Department of the Treasury

What variables affect overall trends in cash rents?

- From the landowner perspective:
 - Land values Values ↓; Cash Rent/Land V ↓
 - Return on investment in bonds, CDs, etc. ↓
 - Household income (farm ↓ and non-farm ???)
 - Property taxes ???
 - Mortgage payments ???
 - Other

Summary

- Other than need of landowners to supplement household income, make mortgage payments, pay taxes:
- NO factors pushing cash rents up in 2017
- Mid-term farm income projections stable at current levels

ISU Cash Rent Survey 2017

- Currently underway
- To participate: plastina@iastate.edu
- I don't expect much change from 2016 (state average \$230)
- Results published in May 2017

Thank you for your attention!

Questions?

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