

2016 ISU Land Value Survey

Dr. Wendong Zhang

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December 13, 2016

Outline

- 2016 Land Value Survey Results
 - State, District, County
- Analysis and Observations
 - Sales Activity, Buyers, Factors to Watch and Price Outlook
- Iowa Farmland Value Portal



30

**Wendong
Zhang**

The new Mike Duffy



29

Who is the New Duffy?

- Well, No one could replace Mike Duffy
- Something about me
 - Grown up in a rural county (with only 1 million people) in NE China
Attended college in Shanghai and Hong Kong
 - Ph.D. in Ag Econ in 2015 from Ohio State
 - 2012 summer intern at USDA-ERS on farm economy and farmland values
 - Research and extension interests: land value, land ownership, agriculture and the environment, China Ag



My Hometown: Shenxian, Shandong Province



The Survey is also Online!



IOWA STATE UNIVERSITY
Extension and Outreach

Dear friend,

In 2014, the Center for Agricultural and Rural Development (CARD) at Iowa State University began administering the annual land value survey. This year, Dr. Wendong Zhang will assume Dr. Mike Duffy's responsibilities as lead researcher and key contact person for the survey as well as the liaison between ISU and the Iowa Chapter. As always, your participation is appreciated and your responses are voluntary and treated confidentially. We cannot produce the Iowa State county-level farmland value estimates without your help.

*Starting this year, we are offering the Iowa land value survey electronically, and we really appreciate your participation. Please complete the survey **no later than November 30**. If you have any questions concerning the survey or would like to receive a paper copy instead, please call 515-294-1183 or email landvalue@iastate.edu. To learn more about CARD visit our web site at www.card.iastate.edu.*

518 respondents
711 land value estimates
48% of the respondents
participated online



<http://bit.ly/landvalue16>

Number of Respondents and Responses by District and Mode, 2016

	Responses			Respondents		
	Paper	Online	Total	Paper	Online	Total
	PERCENT		Number	PERCENT		Number
Northwest	57	43	98	60	40	76
North Central	50	50	77	51	49	58
Northeast	50	50	89	42	58	67
West Central	51	49	75	51	49	54
Central	57	43	90	60	40	66
East Central	44	56	72	44	56	57
Southwest	49	51	72	61	39	50
South Central	57	43	63	55	45	49
Southeast	54	46	76	41	59	41
STATE	52	48	711	52	48	518

Survey Respondents by Occupation, 2016

	Farm manager	Appraiser	Ag lender	Broker/Realtor	Farmer /Landowner	Government	Other
	PERCENT						
Northwest	17	5	33	32	3	9	1
North Central	14	14	31	19	5	16	2
Northeast	9	4	44	12	13	12	6
West Central	11	15	42	16	5	9	2
Central	24	16	27	15	7	9	1
East Central	14	12	34	22	7	8	3
Southwest	24	10	37	16	4	8	2
South Central	12	10	28	24	12	12	2
Southeast	7	22	34	10	17	10	0
STATE	15	11	34	19	8	10	2

Experience and Service Area by Occupation

Crop reporting district	Years of experience	Number of counties served	Occupation	Years of experience	Number of Counties Served
Northwest	31	10	Farm manager	25	11
North Central	29	11	Appraiser	23	15
Northeast	23	7	Ag lender	24	5
West Central	27	10	Brokers/Realtor	29	19
Central	27	14	Farmer/Landowner	42	2
East Central	27	14	Government	22	2
Southwest	23	6	Other	32	8
South Central	21	7			
Southeast	25	12			
STATE	26	10	STATE	26	10


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STATEWIDE AVERAGE

\$7,183

Nov 2016



down -5.9%
down -\$450

HIGH QUALITY LAND

\$8,758

down -6.5%
down -\$606



MEDIUM QUALITY LAND

\$6,705

down -5.9%
down -\$294

LOW QUALITY LAND

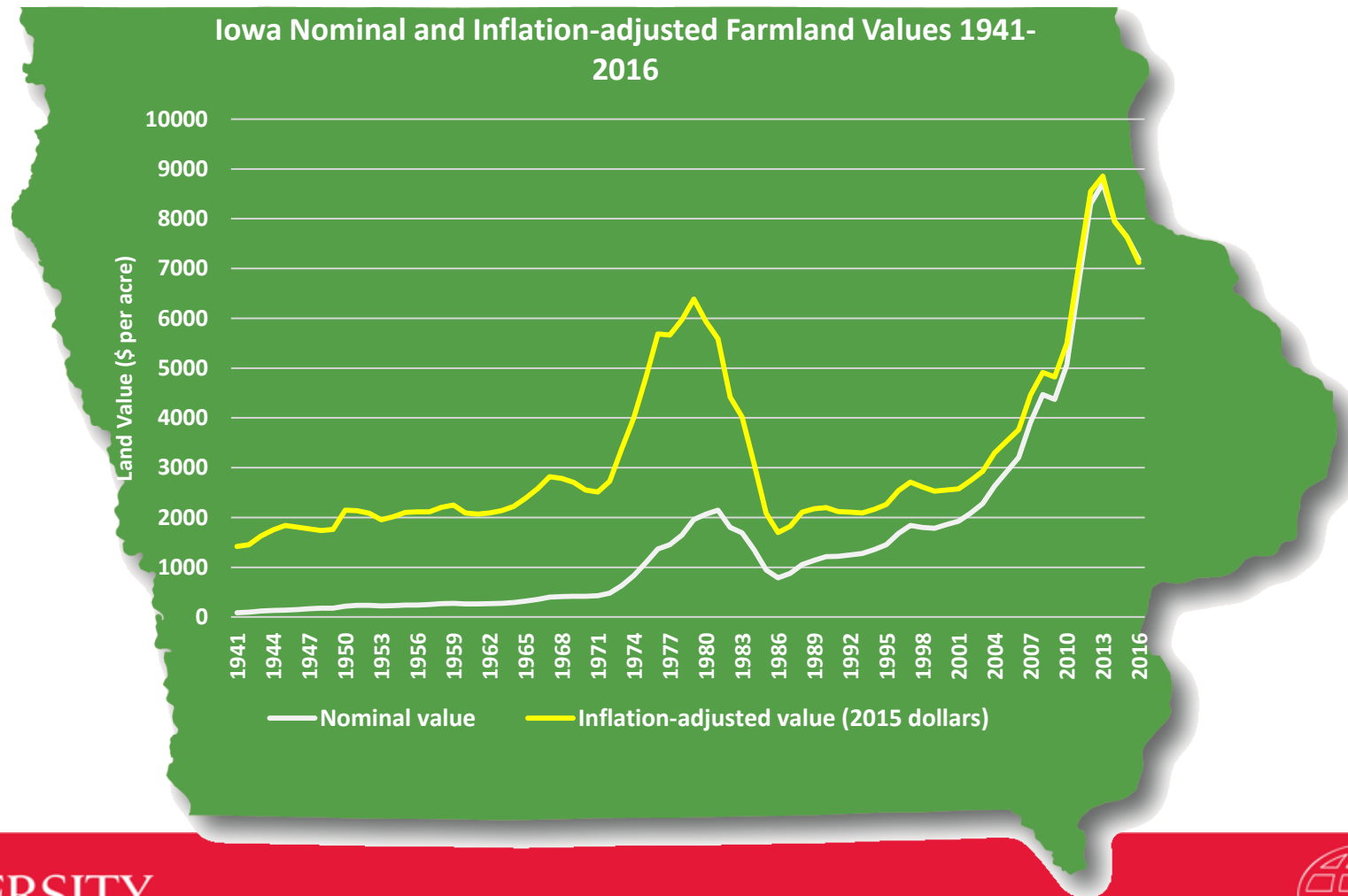
\$4,665

down -3.5%
down -\$169

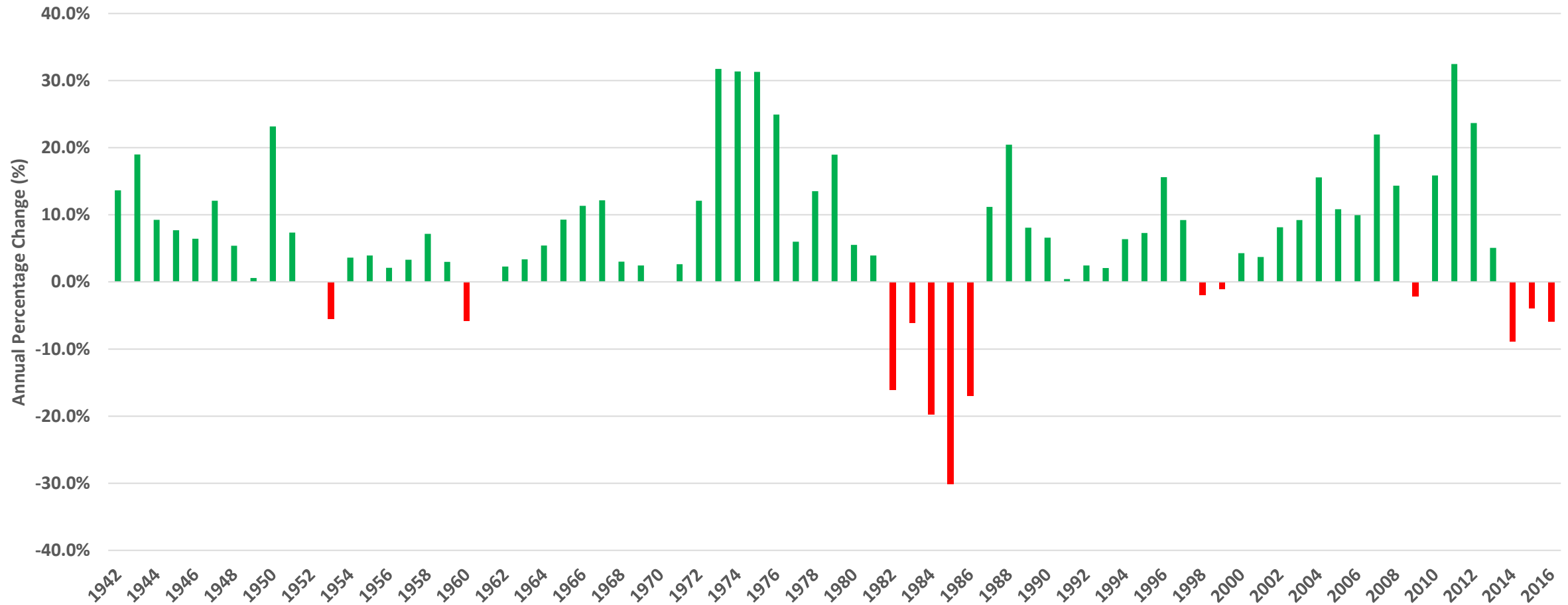


AVERAGE VALUES

all farmland 1941–2016



% Change in Nominal Iowa Farmland Values 1942-2016



Land Values by District and Land Quality, Nov 2016

District	Average Value	% Change	High Quality	% Change	Medium Quality	% Change	Low Quality	% Change
Northwest	\$9,243	-4.6%	\$10,650	-5.2%	\$8,468	-4.1%	\$6,019	-3.7%
North Central	\$7,562	-5.0%	\$8,442	-5.9%	\$6,992	-4.9%	\$5,164	-3.9%
Northeast	\$7,313	-7.0%	\$8,892	-7.1%	\$6,994	-6.2%	\$4,847	-7.5%
West Central	\$7,358	-8.7%	\$8,874	-8.4%	\$6,870	-9.4%	\$4,577	-9.9%
Central	\$7,841	-7.8%	\$9,299	-7.8%	\$7,186	-7.4%	\$5,158	-2.5%
East Central	\$7,917	-6.9%	\$9,502	-7.6%	\$7,396	-6.8%	\$5,153	-4.0%
Southwest	\$6,060	-4.9%	\$7,527	-6.3%	\$5,683	-5.9%	\$4,189	2.9%
South Central	\$4,241	-3.6%	\$5,980	-7.2%	\$4,128	-3.6%	\$2,892	5.2%
Southeast	\$6,716	-2.6%	\$9,265	-2.8%	\$6,283	-3.7%	\$3,783	-0.4%
Iowa Avg.	\$7,183	-5.9%	\$8,758	-6.5%	\$6,705	-5.9%	\$4,665	-3.5%

Livestock and Crop Inventory by District

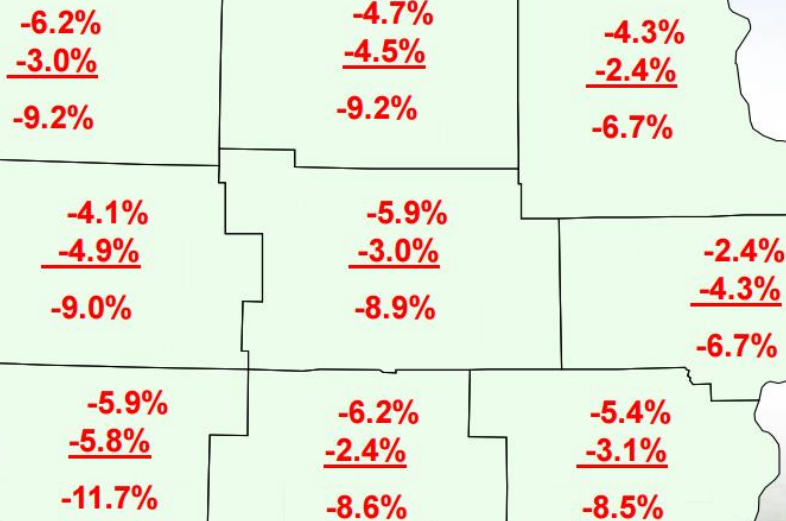
	Inventory 2012				Harvested Acres 2015	
	Chickens, Layers	Hogs	Milk Cows	Cattle	Corn	Soybean
Northwest	30%	26%	29%	22%	15%	16%
North Central	64%	16%	4%	6%	14%	13%
Northeast	1%	12%	51%	16%	12%	8%
West Central	0%	13%	1%	13%	15%	16%
Central	3%	13%	1%	7%	15%	14%
East Central	1%	5%	10%	11%	10%	10%
Southwest	0%	2%	0%	9%	7%	9%
South Central	0%	2%	1%	9%	4%	5%
Southeast	1%	11%	3%	6%	7%	8%
State Inventory	20.4 million	20.4 million	0.17 million	2.34 million	13.2 million	9.8 million

ISU survey results echo other surveys

REALTORS® Land Institute Land Value Survey

September 1, 2016

September 2015– September 2016

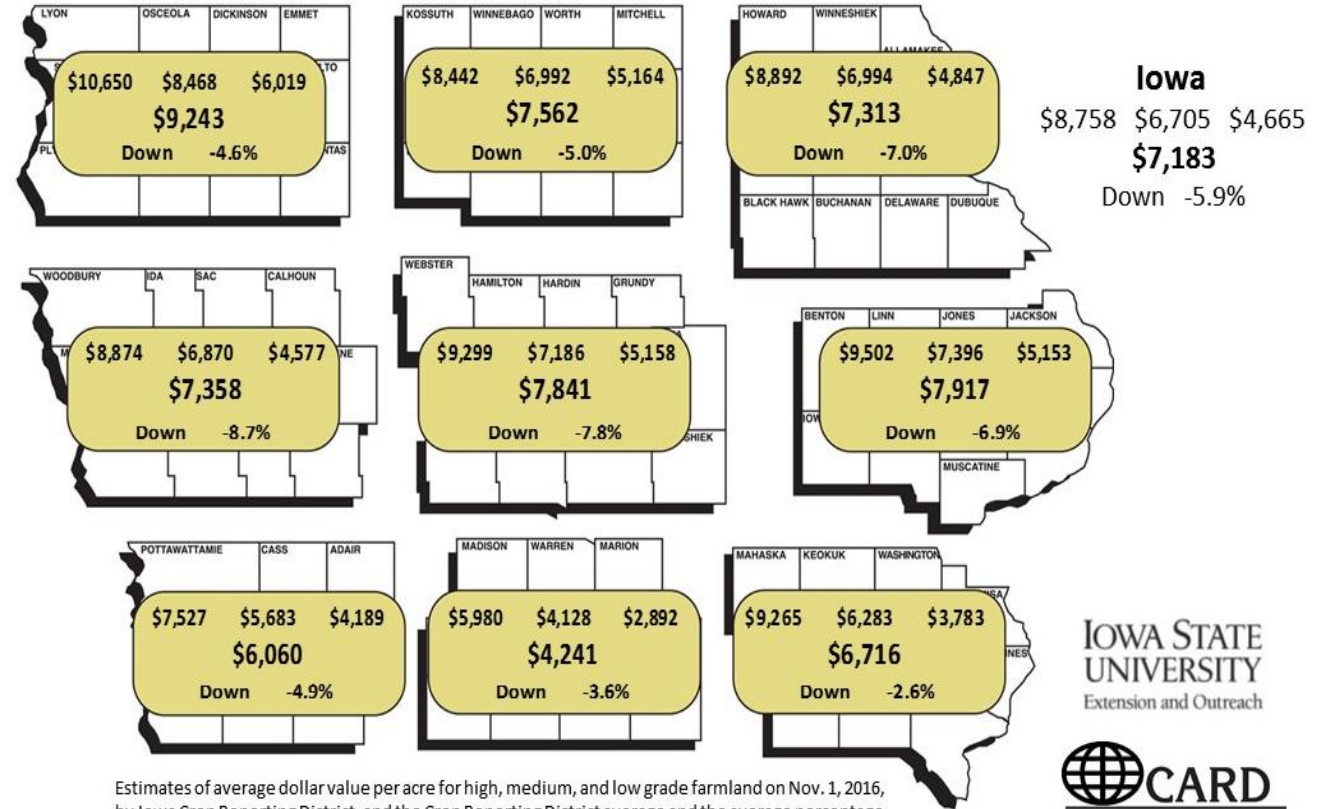


Top – March 2016

Bottom – September 2016

Nine Crop Reporting Districts

2016 Iowa Land Values by Crop Reporting District



Iowa

\$8,758 \$6,705 \$4,665

\$7,183

Down -5.9%

Estimates of average dollar value per acre for high, medium, and low grade farmland on Nov. 1, 2016, by Iowa Crop Reporting District, and the Crop Reporting District average and the average percentage change from Nov. 1, 2015. The estimates are based on a survey conducted by Iowa State University, Center for Agricultural and Rural Development and Iowa State University Extension and Outreach.

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 **CARD**
Center for Agricultural and Rural Development

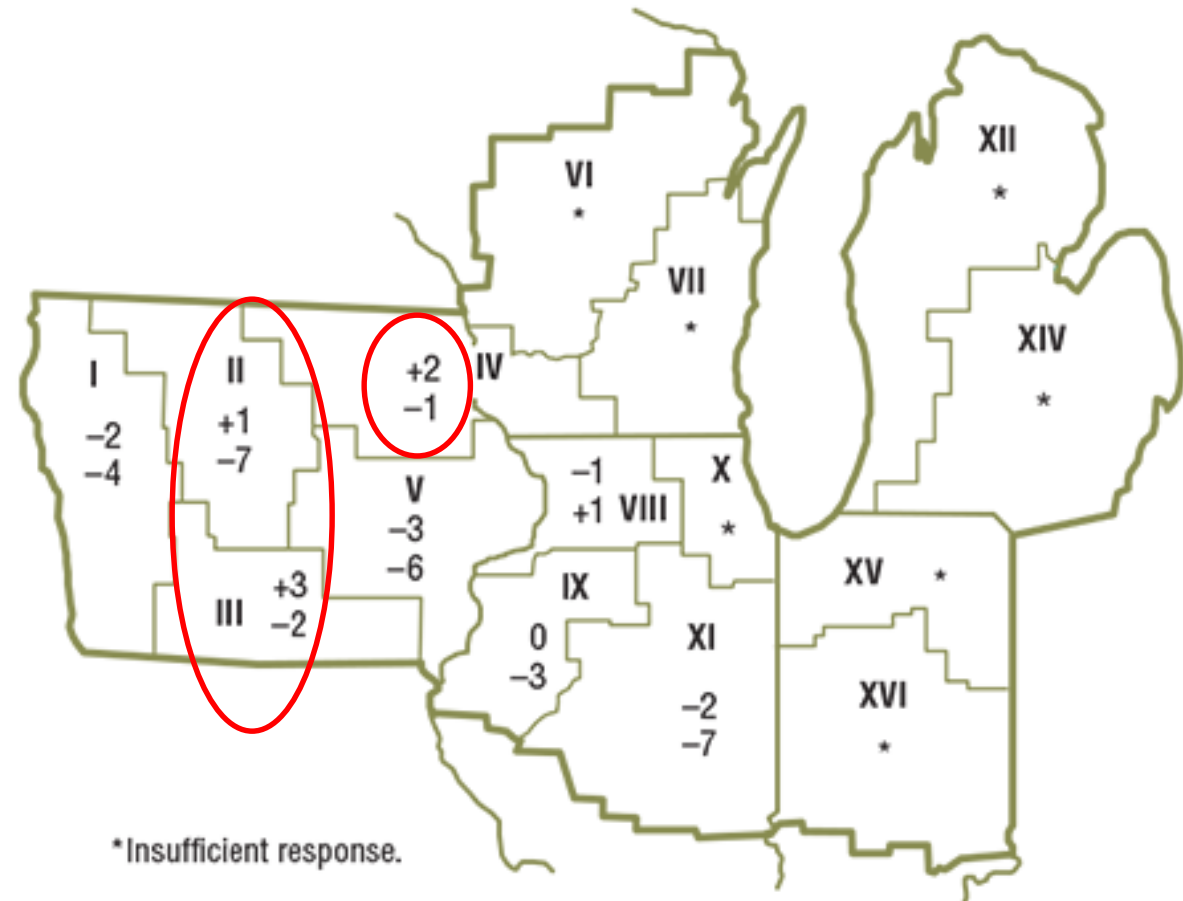
ISU survey results echo other surveys

Percent change in dollar value of "good" farmland

Top: July 1, 2016 to October 1, 2016

Bottom: October 1, 2015 to October 1, 2016

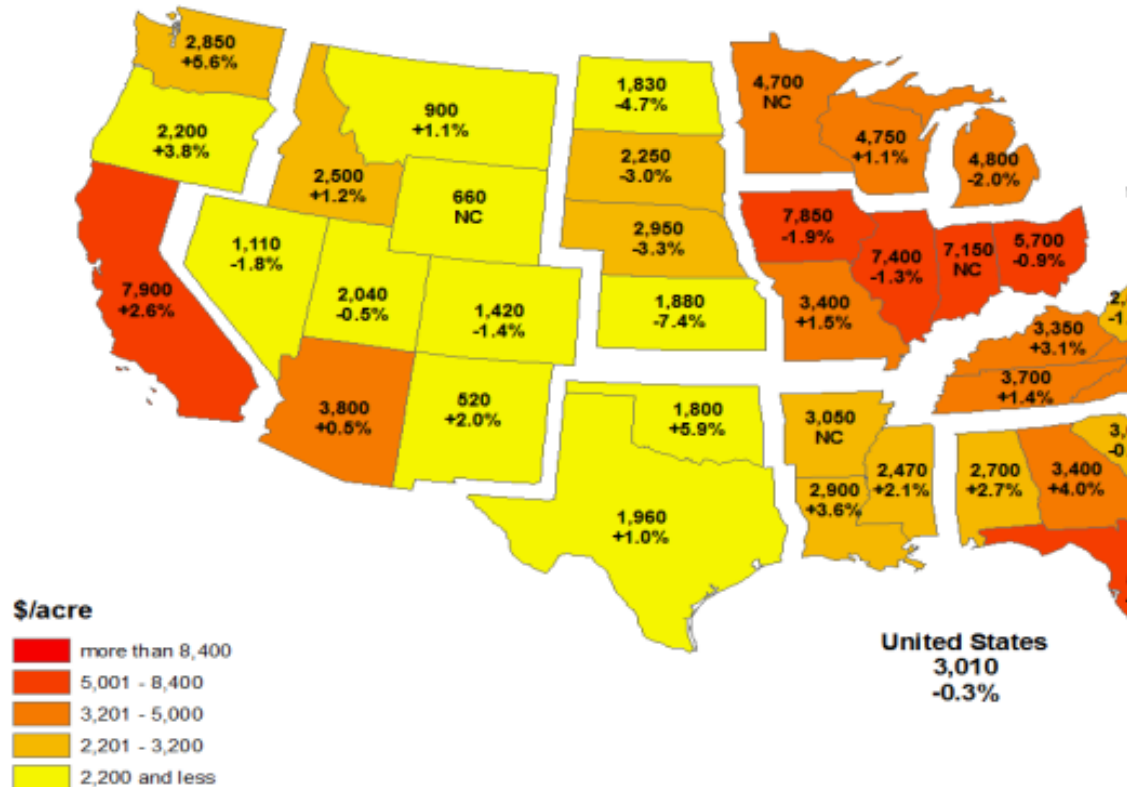
	July 1, 2016 to October 1, 2016	October 1, 2015 to October 1, 2016
Illinois	-1	-4
Indiana	0	+1
Iowa	-1	-5
Michigan	-3	-11
Wisconsin	0	+2
Seventh District	-1	-3



ISU survey results echo other surveys

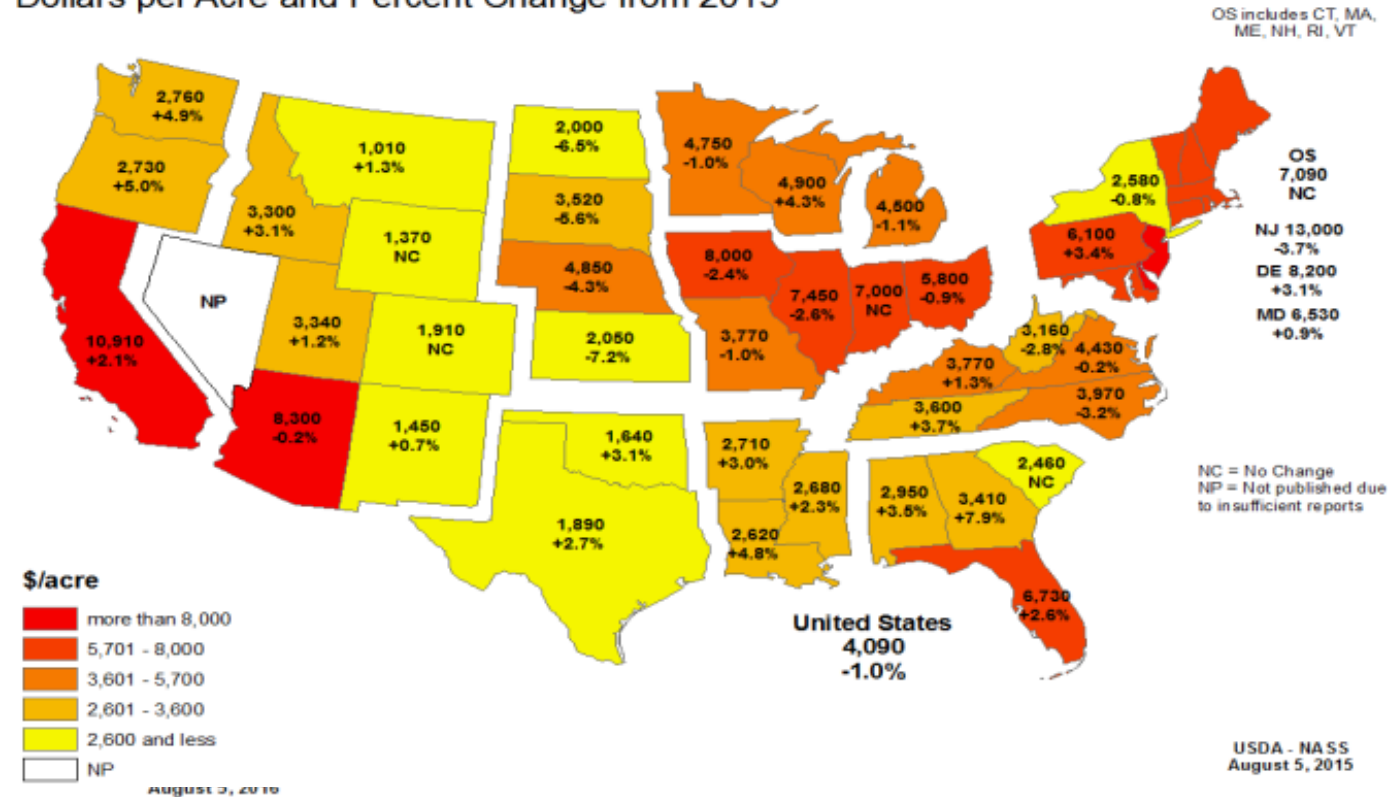
2016 Farm Real Estate Value by State

Dollars per Acre and Percent Change from 2015



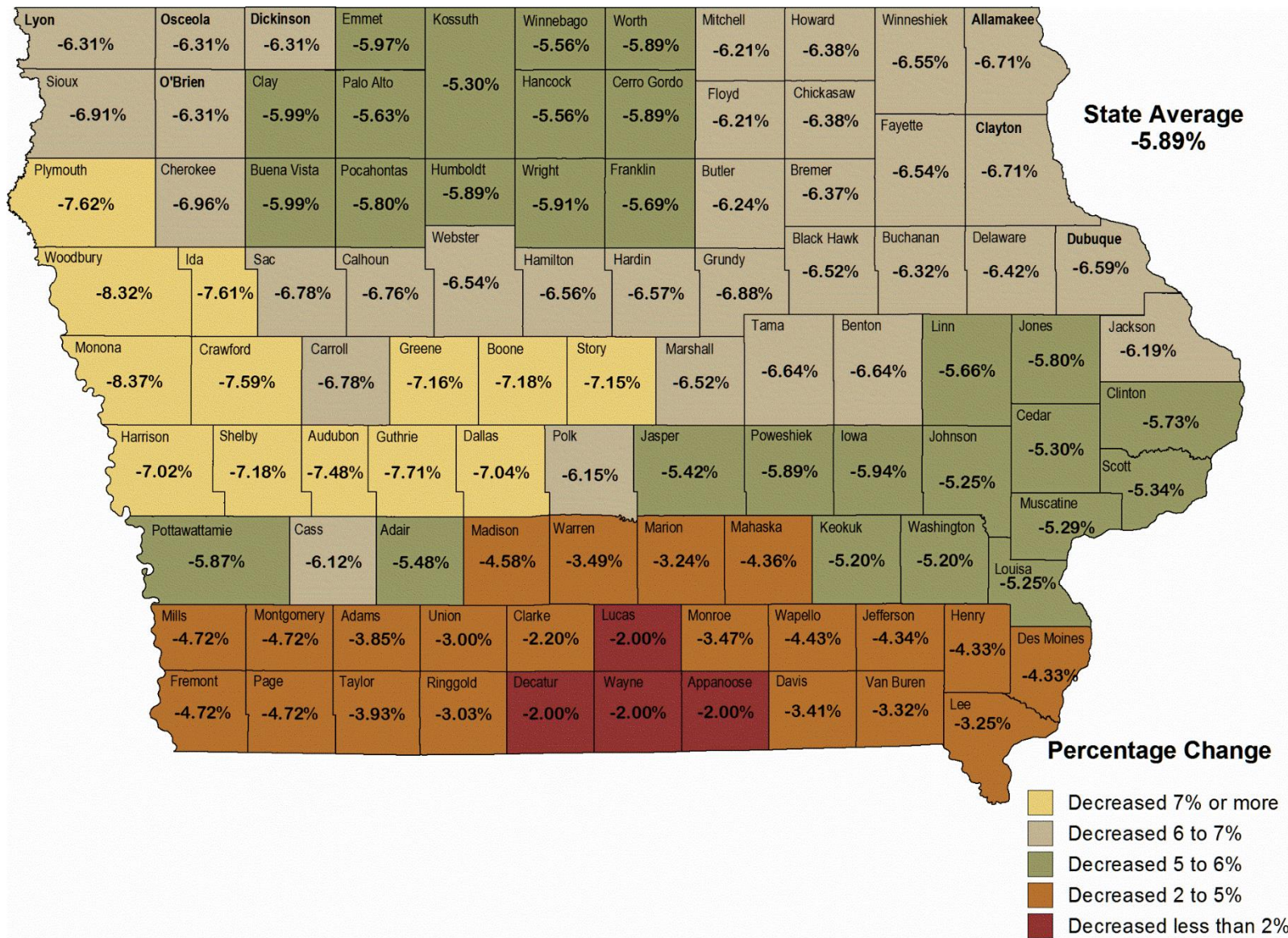
2016 Cropland Value by State

Dollars per Acre and Percent Change from 2015



Dollar Values

- \$6,500 or less
- \$6,501 to \$7,500
- \$7,501 to \$8,000
- \$8,001 to \$9,000
- \$9,001 or more



Percent Changes in Land Values from Nov 2015

Outline

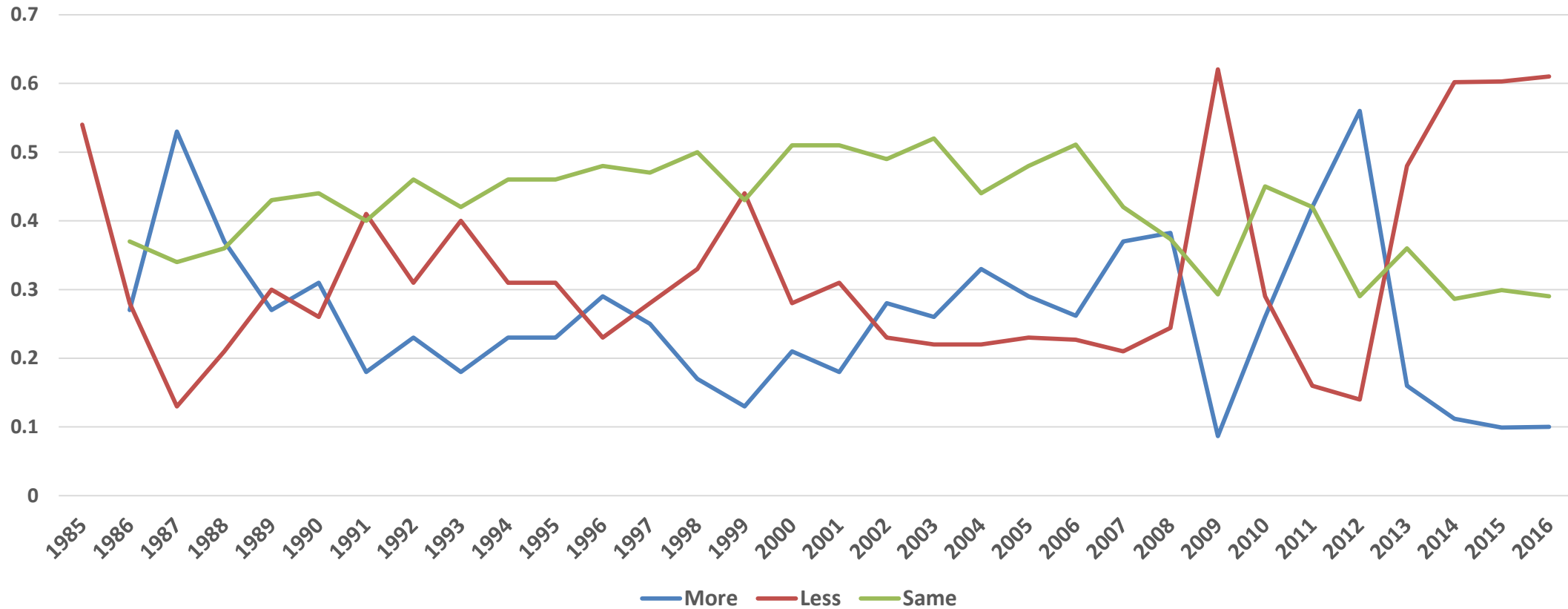
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Iowa Farmland Sale Activity since November 2015

	More	Less	Same
	PERCENT		
Northwest	17	46	37
North Central	8	63	29
Northeast	8	64	28
West Central	7	65	28
Central	14	69	17
East Central	3	73	24
Southwest	9	65	26
South Central	12	56	32
Southeast	14	48	38
STATE	10	61	29

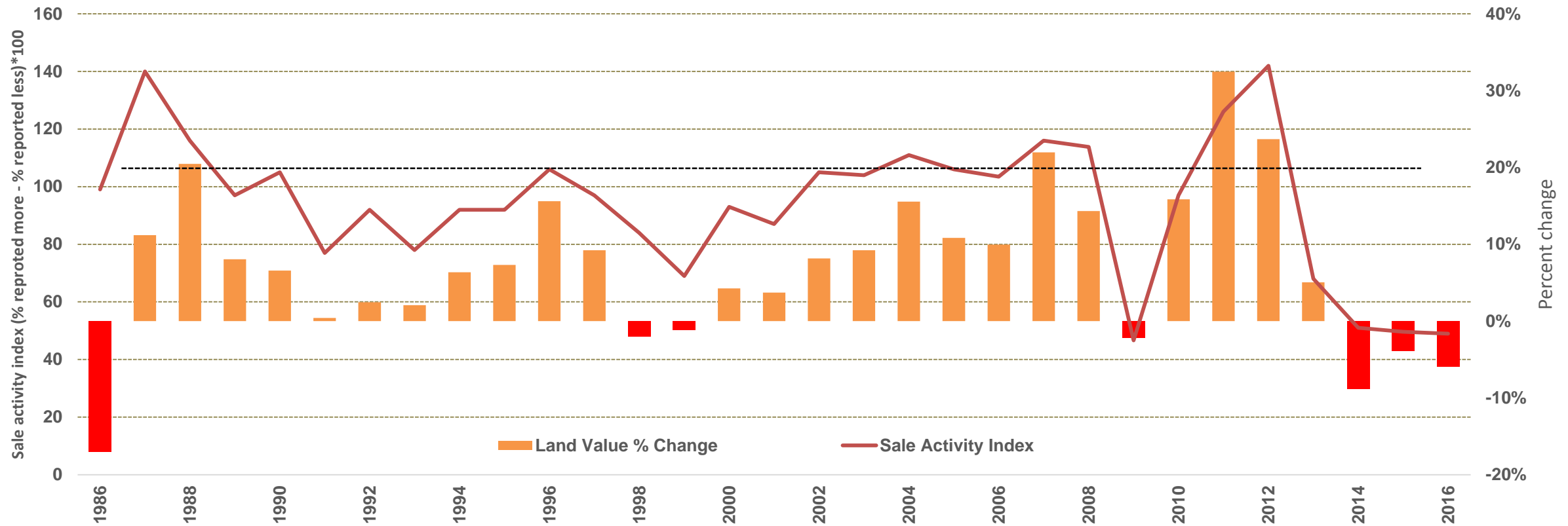
Iowa Farmland Sale Activity Relative to Last Year 1985-2016

Iowa Farmland Sale Activity Change 1989-2016



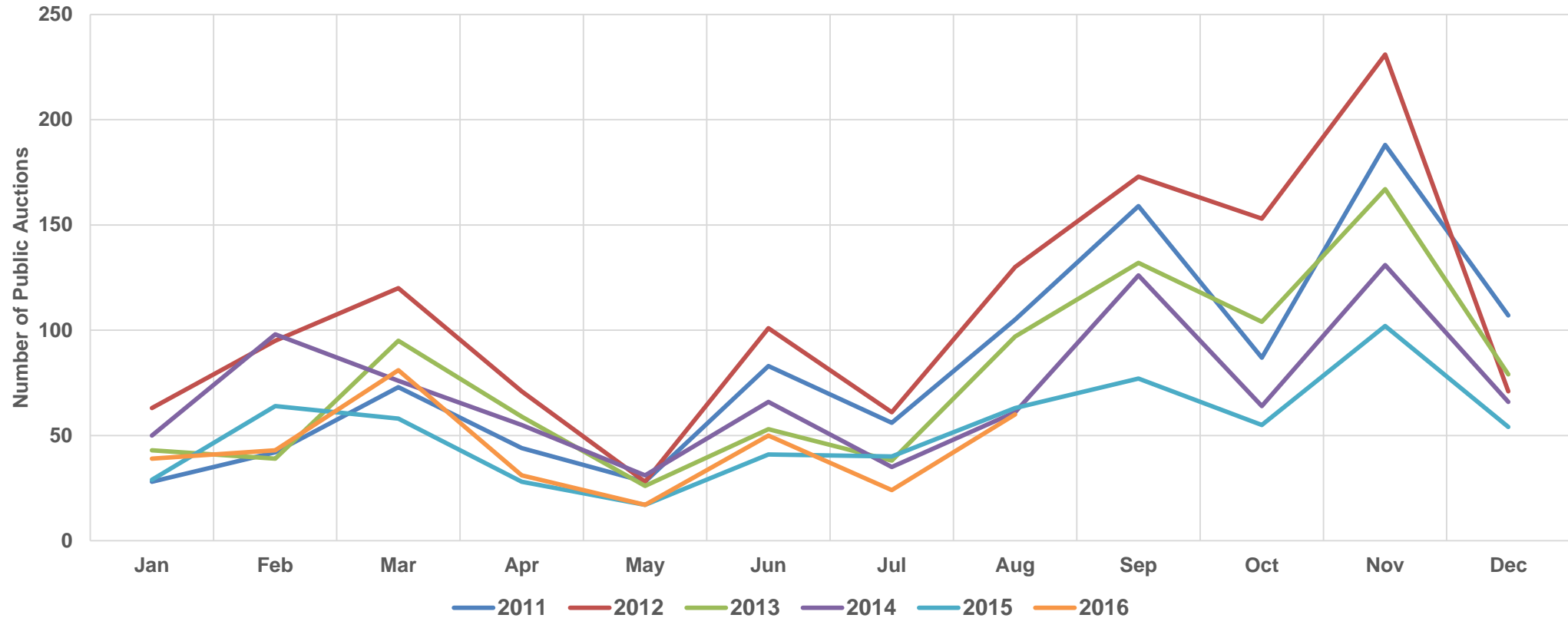
Farmland supply tends to be tighter in down years

ISU sale activity index and percent change in
Iowa land value, 1986-2016
(% reported more sales - % reported less sales) + 100

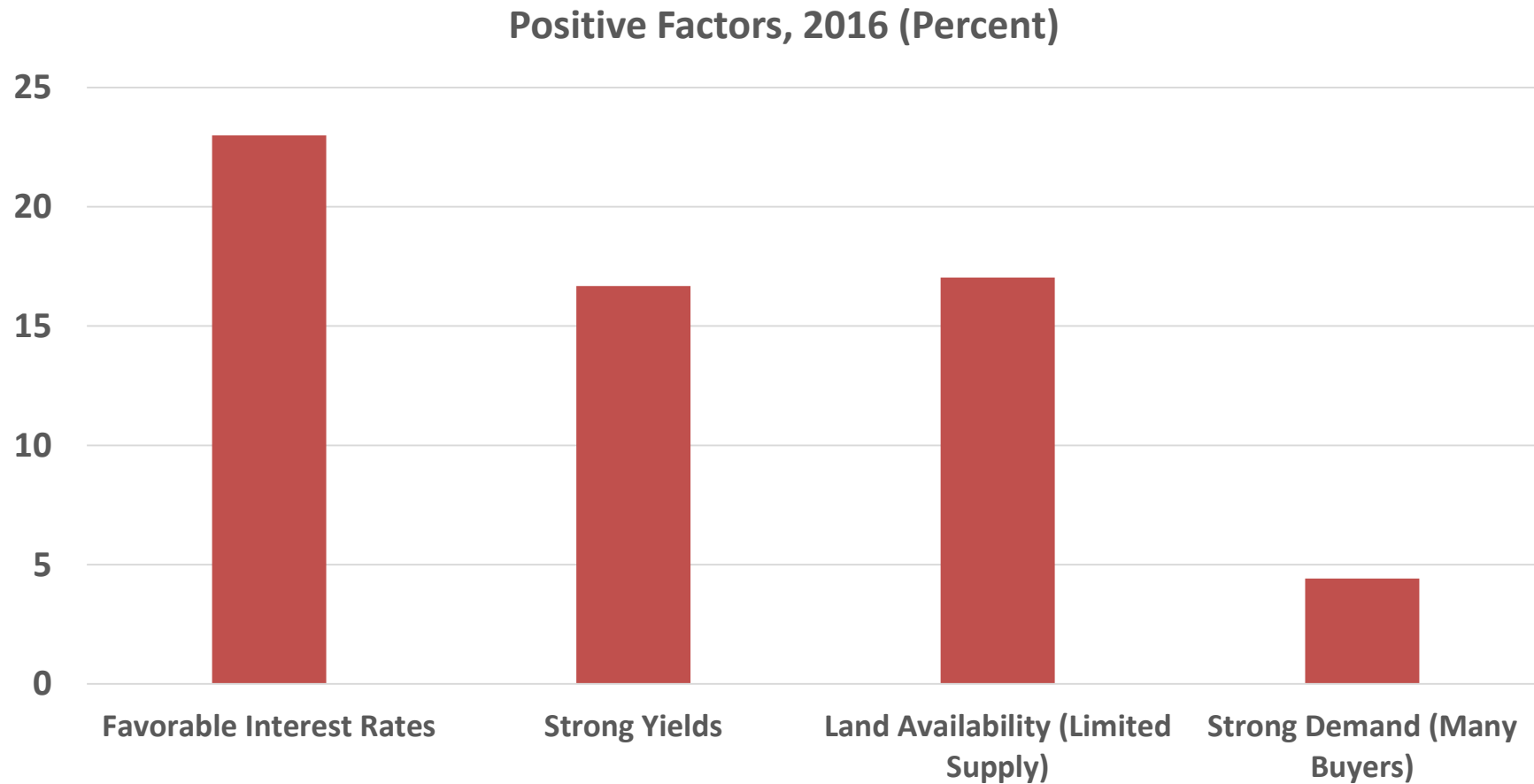


Limited farmland supply tends to bolster land values

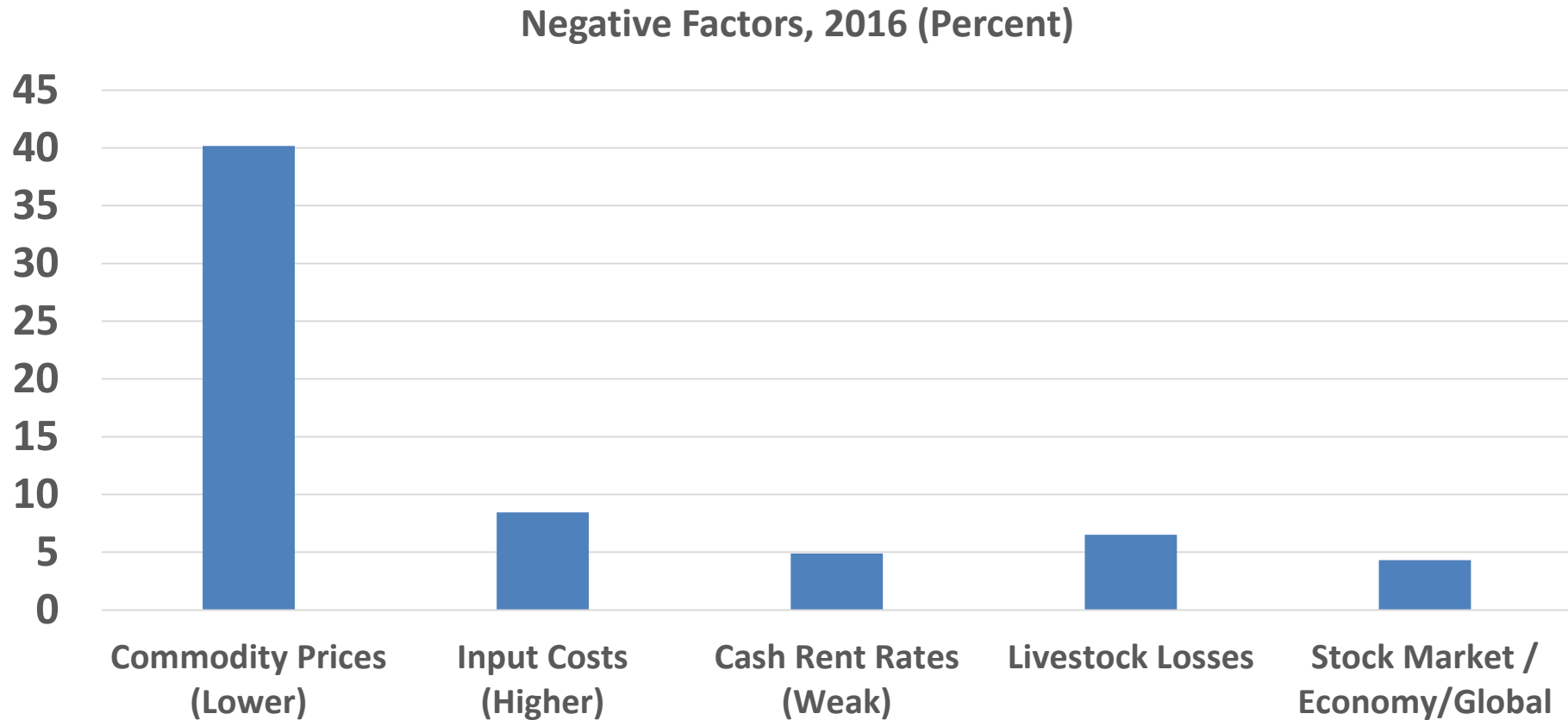
Number of Public Auctions by Month 2011-2016



Major Positive Factors Affecting Iowa Farmland Market, 2016



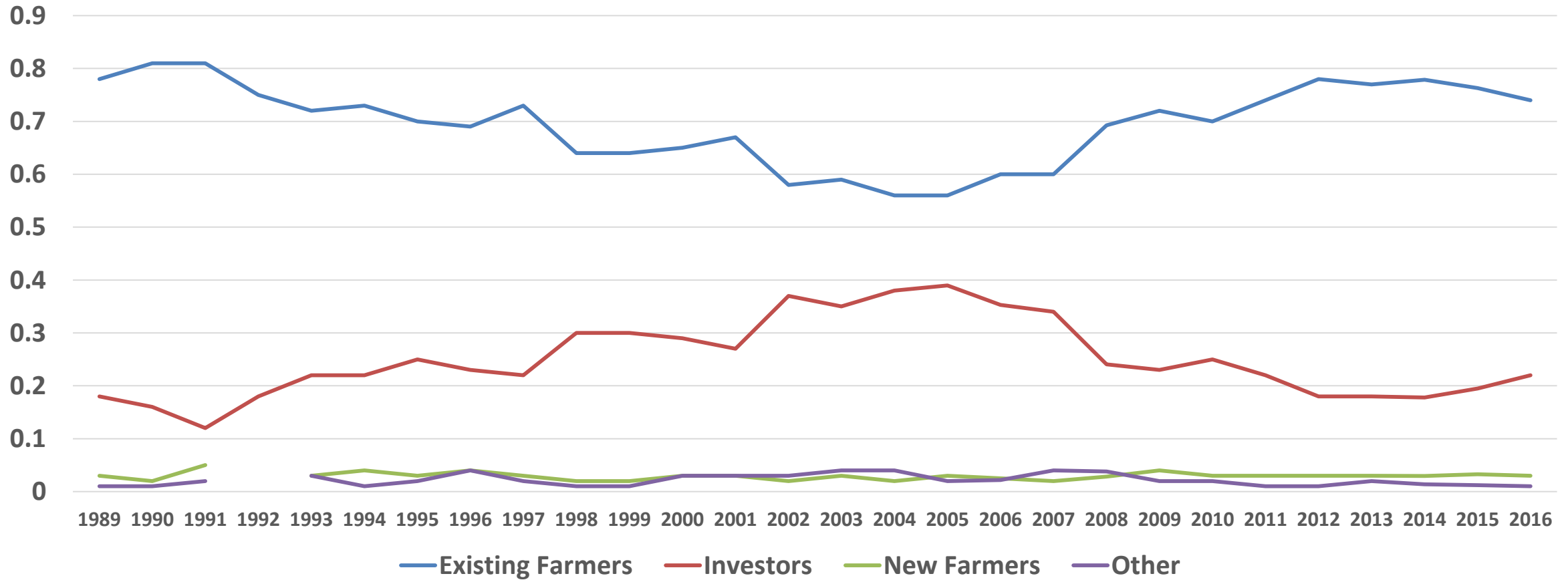
Major Negative Factors Affecting Iowa Farmland Market, 2016



Iowa Farmland Purchases by Buyer Types, 2016

	Existing Local Farmers	Existing Relocating Farmers	New Farmers	Investors	Other
	PERCENT				
Northwest	79	1	2	18	1
North Central	71	1	2	25	1
Northeast	77	2	4	15	2
West Central	77	1	2	18	2
Central	73	1	2	23	1
East Central	75	1	4	20	0
Southwest	65	3	4	28	1
South Central	57	4	4	33	3
Southeast	74	2	5	17	3
STATE	72	2	3	22	1

Iowa Farmland Purchases by Buyer Types 1989-2016



Iowa Farmland Purchases by Seller Types, 2016

	Active Farmers	Retired Farmers	Estate Sales	Investors	Other
	PERCENT				
Northwest	12	17	64	5	3
North Central	8	17	61	10	4
Northeast	14	34	43	6	5
West Central	12	25	57	5	2
Central	13	22	53	8	4
East Central	11	24	53	9	2
Southwest	15	24	47	13	1
South Central	17	24	37	19	3
Southeast	11	24	57	10	2
STATE	12	23	53	9	3

High land Quality has a local meaning!

	Reported Average CSR2			Reported Average Corn Yields		
	High Quality	Medium Quality	Low Quality	High Quality	Medium Quality	Low Quality
Northwest	87	79	66	214	191	165
North Central	84	74	62	208	187	163
Northeast	82	68	54	213	188	157
West Central	80	67	55	212	186	160
Central	85	73	61	209	182	155
East Central	84	70	54	219	193	161
Southwest	78	65	51	205	179	153
South Central	68	53	38	186	154	127
Southeast	81	65	47	201	175	145
STATE	81	69	55	208	182	155

Cash Crop Price Predictions for Nov 2017, 2018, 2020

	Cash Corn Prices			Cash Soybean Prices		
	2017	2018	2020	2017	2018	2020
Northwest	\$ 3.34	\$ 3.65	\$ 3.98	\$ 9.25	\$ 9.61	\$ 10.32
North Central	\$ 3.42	\$ 3.59	\$ 3.93	\$ 9.16	\$ 9.46	\$ 10.01
Northeast	\$ 3.41	\$ 3.59	\$ 3.95	\$ 9.19	\$ 9.28	\$ 9.76
West Central	\$ 3.34	\$ 3.59	\$ 4.02	\$ 9.12	\$ 9.33	\$ 10.06
Central	\$ 3.36	\$ 3.50	\$ 3.77	\$ 9.17	\$ 9.40	\$ 9.86
East Central	\$ 3.42	\$ 3.58	\$ 3.89	\$ 9.26	\$ 9.51	\$ 10.00
Southwest	\$ 3.31	\$ 3.56	\$ 3.94	\$ 9.15	\$ 9.42	\$ 10.09
South Central	\$ 3.36	\$ 3.59	\$ 3.90	\$ 9.51	\$ 9.76	\$ 10.35
Southeast	\$ 3.50	\$ 3.83	\$ 4.17	\$ 9.49	\$ 9.59	\$ 10.08
STATE	\$ 3.38	\$ 3.60	\$ 3.94	\$ 9.24	\$ 9.48	\$ 10.06

Farmland Values Predictions for Nov 2017, 2018, 2020

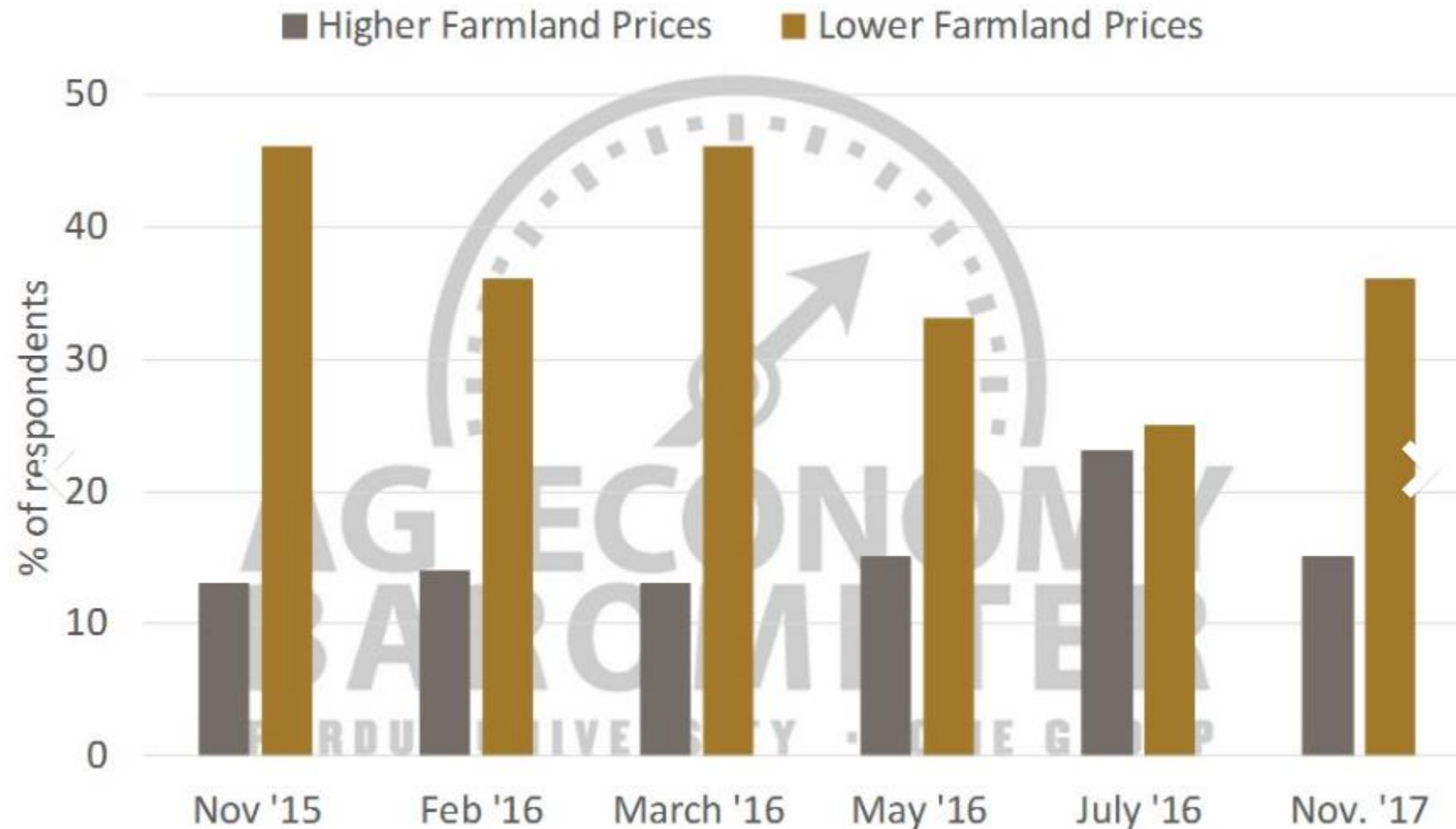
	Reported Average Values as	Land Value Predictions		
	of Nov 2016	Nov 2017	Nov 2018	Nov 2020
Northwest	\$9,912	\$10,085	\$9,786	\$9,983
North Central	\$8,089	\$7,908	\$7,765	\$7,966
Northeast	\$7,582	\$7,799	\$7,624	\$7,704
West Central	\$7,628	\$7,689	\$7,501	\$8,058
Central	\$8,156	\$8,623	\$8,396	\$8,593
East Central	\$7,976	\$8,188	\$7,943	\$8,057
Southwest	\$6,452	\$6,376	\$6,189	\$6,560
South Central	\$4,497	\$4,958	\$4,796	\$4,917
Southeast	\$7,297	\$7,470	\$7,451	\$7,530
STATE	\$7,700	\$7,858	\$7,662	\$7,877

Soil Mgmt Land Valuation Conf

May 17th, 2017

2016 Estimated Land and Commodity Prices					
	AVG. Estimate				
LAND:					
	NW	NE	SW	SE	STATE
Nov 2016	\$ 8,358	\$ 8,191	\$ 6,958	\$ 7,320	\$ 7,776
Nov 2017	\$ 8,137	\$ 7,991	\$ 6,991	\$ 6,869	\$ 7,572
Nov 2020	\$ 8,884	\$ 8,758	\$ 7,698	\$ 7,614	\$ 8,303
Nov 2025	\$ 10,199	\$ 9,756	\$ 8,834	\$ 8,681	\$ 9,446
Nov 2040	\$ 14,487	\$ 12,818	\$ 11,833	\$ 11,988	\$ 12,866
Commodity Prices					
	CORN		SOYBEAN		
Nov 2016	\$	3.75	\$	9.44	
Nov 2017	\$	3.73	\$	10.12	
Nov 2020	\$	4.32	\$	10.78	

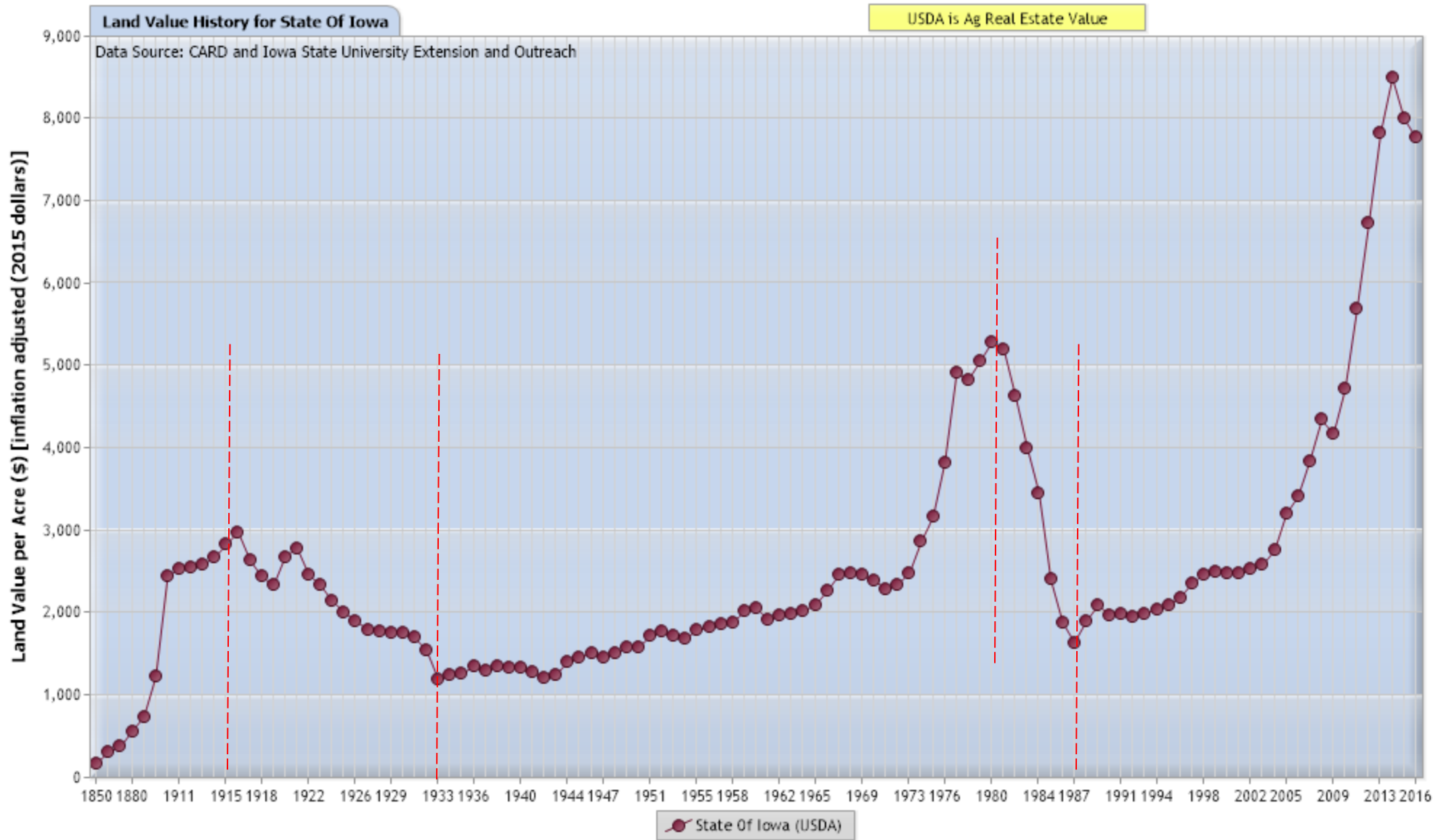
Farmland Price Expectations, 12 months from now



Most Recent Observation: Nov. 2016

Producer Survey

Iowa Ag Real Estate Values 1850- 2016



A replay of 1920s or 1980s farm crisis?

Average % change in inflation-adjusted values per year

Golden Eras

	<i>Land</i>	<i>Gross Income</i>	<i>Net Income</i>
1910-1920	1.2%	0.8%	0.2%
1973-1981	9.7%	0.9%	-3.2%
2003-2013	11.1%	4.5%	8.1%

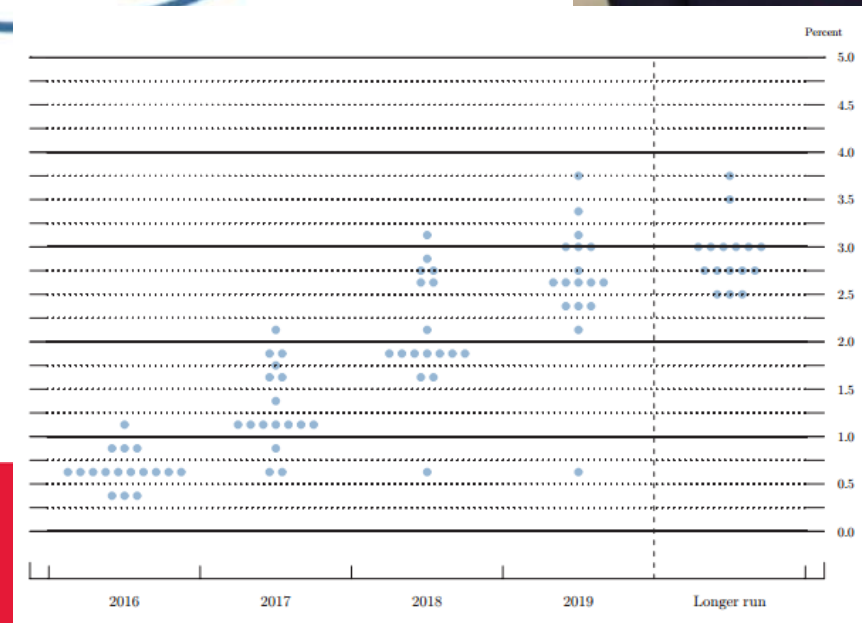
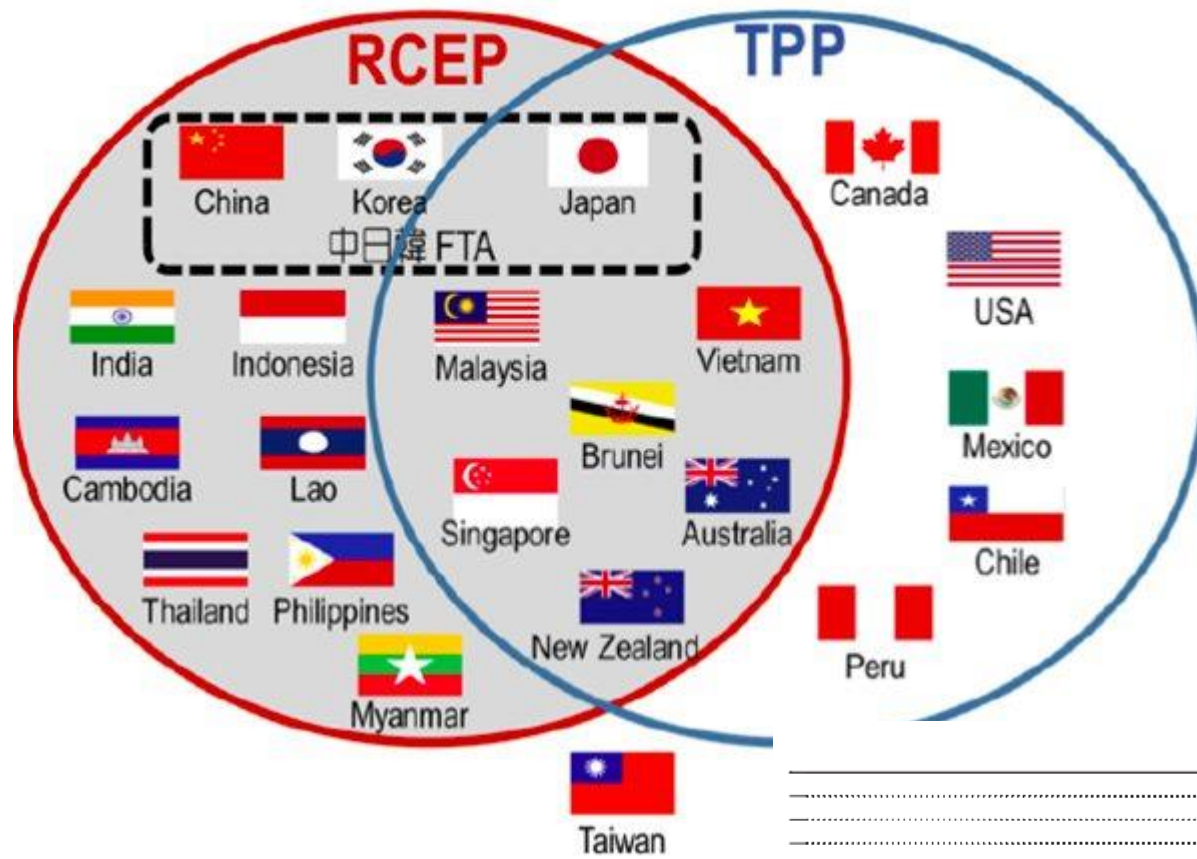
Crises and Declines

	<i>Land</i>	<i>Gross Income</i>	<i>Net Income</i>
1921-1933	-5.8%	-1.9%	-1.0%
1981-1987	-15.0%	-2.5%	2.6%
2013-2016	-6.0%*	-2.7%	-9.5%

Key Indicators to Watch

Land Value = net income / interest rate

- USDA Farm Income Forecast
 - Price Outlook
 - Ag Exports / Exchange Rate
 - China
 - Ethanol, E-85, RFS
- Fed's move on Interest Rate
- Ag Loan Delinquency; Vendor Credit



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Iowa Farmland Value Portal

<http://card.iastate.edu/farmland>



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Iowa Farmland Value Portal ^{BETA}

Your One-Stop Web-Portal for Everything You Need to Know about Iowa's Farmland Value

[2015 Results](#) [Charts](#) [Interactive County Maps](#) [Downloads](#) [Resources](#) [Archive](#)

Select a county or district:

Select result format: ☒ dollar value ☐ annual percentage change ☐ farmland value indexes (state only)

Select data sources: ☒ ISU Iowa Land Value Survey ☐ USDA National Agricultural Statistics Service
☐ REALTORS Land Institute ☐ Federal Reserve Bank of Chicago

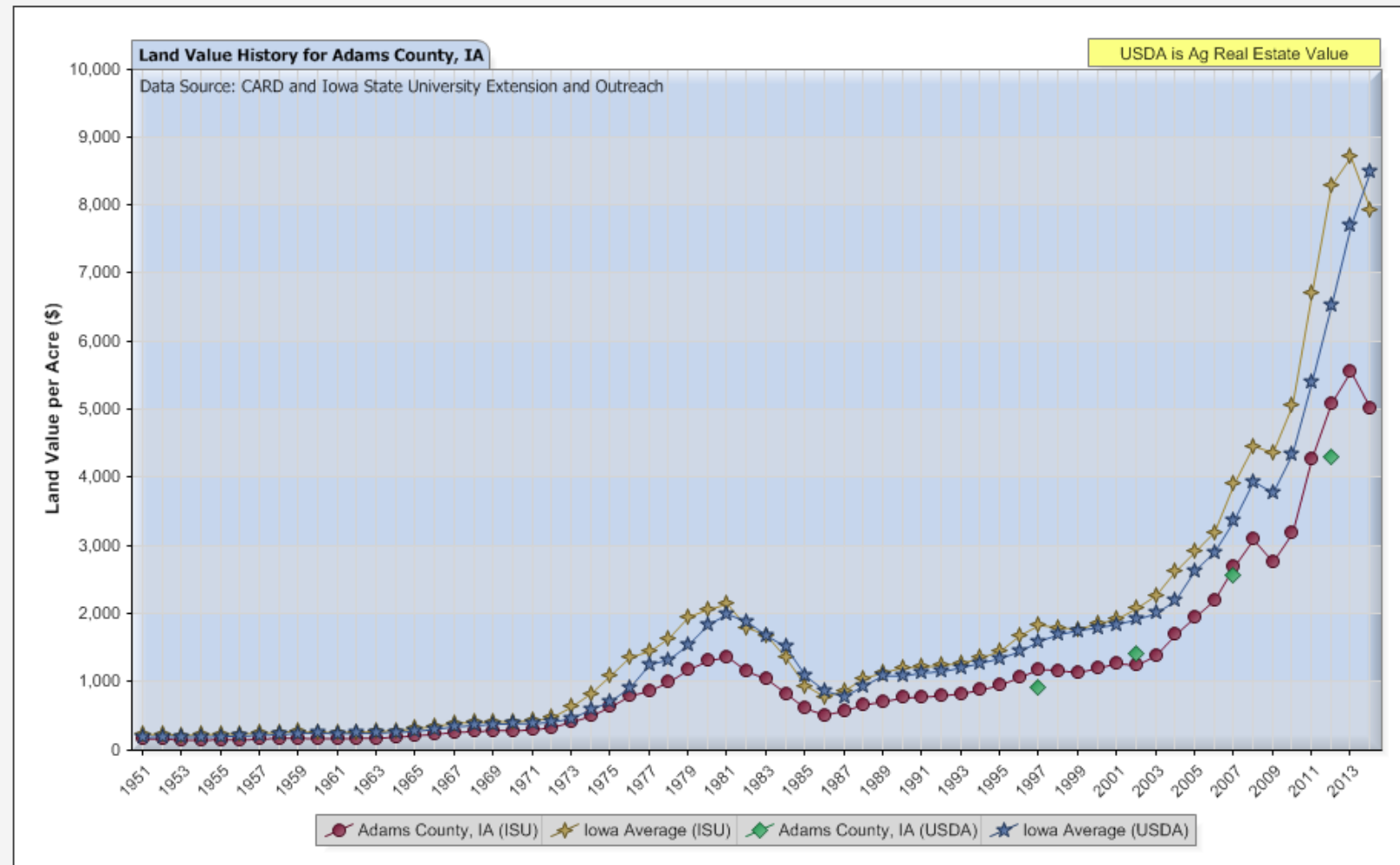
Years: through

☐ Show Values

☐ Show Iowa Average ☐ Show District Average

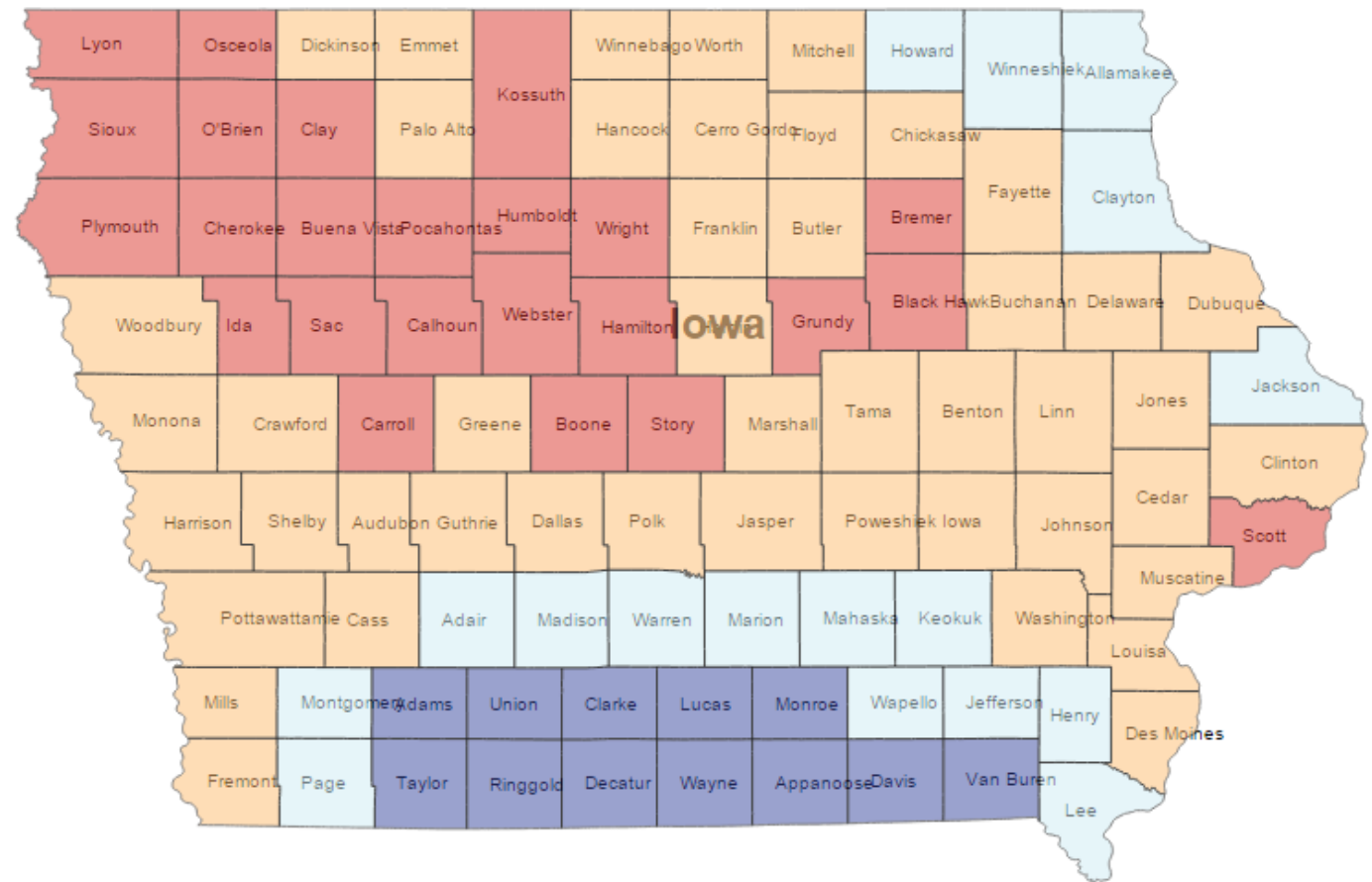
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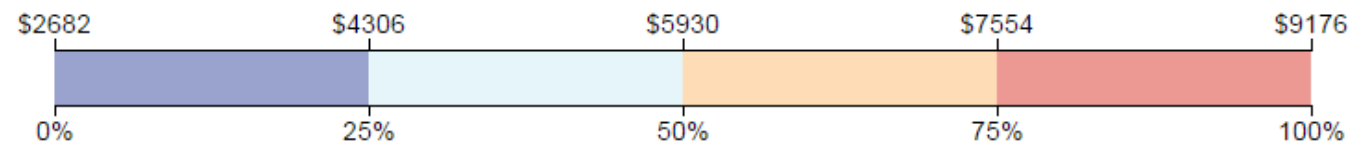


Iowa Farmland Value Portal

[http://card.iastate.edu/
farmland](http://card.iastate.edu/farmland)



Farmland Values 2014





Thank You!

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