

1. Kansas Land Values and Rental Rates

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Mykel Taylor is an Associate Professor in the Department of Agricultural Economics at Kansas State University. Dr. Taylor's research and extension programs are focused in the area of farm management. She attended Montana State University majoring in Agribusiness Management. Her PhD in Economics is from North Carolina State University. She has worked in extension positions at both Kansas State University and Washington State University. Some of her current research areas include measuring basis risk for commodity grains, and analyzing trends in Kansas agricultural land values, rental rates, evaluation of commodity programs in the 2014 Farm Bill, and leasing arrangements.

Abstract/Summary

With a down farm economy and lingering uncertainty about future profitability, the land purchase and rental markets are in a state of flux. We will look at current trends in land values and where they are headed, followed by a discussion of the strength of the rental market for ag land in Kansas.

Kansas Land Values and Rental Rates

Mykel Taylor

Associate Professor

Risk and Profit Conference

Aug 17-18, 2017

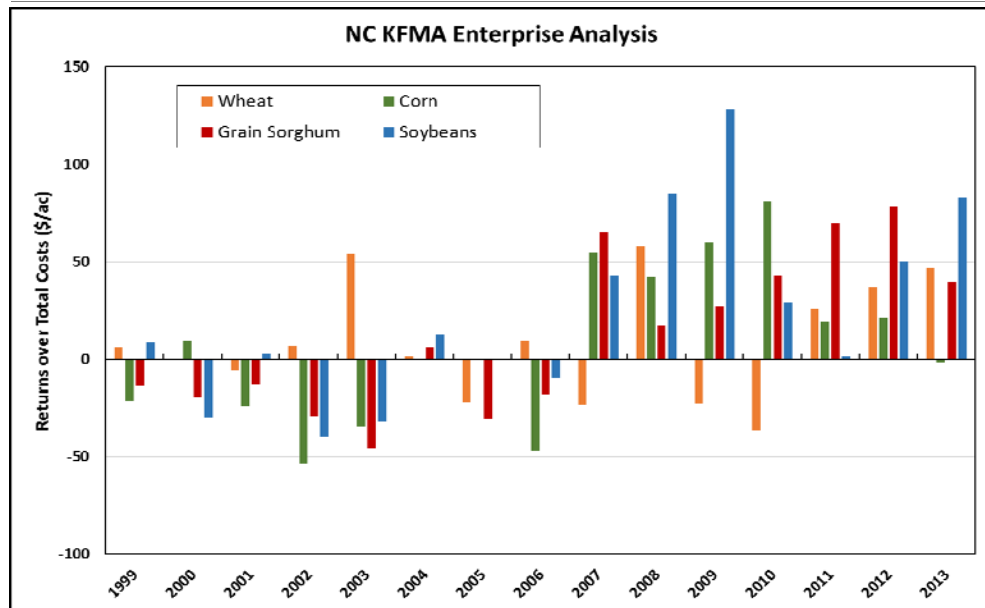
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Current Economic Conditions

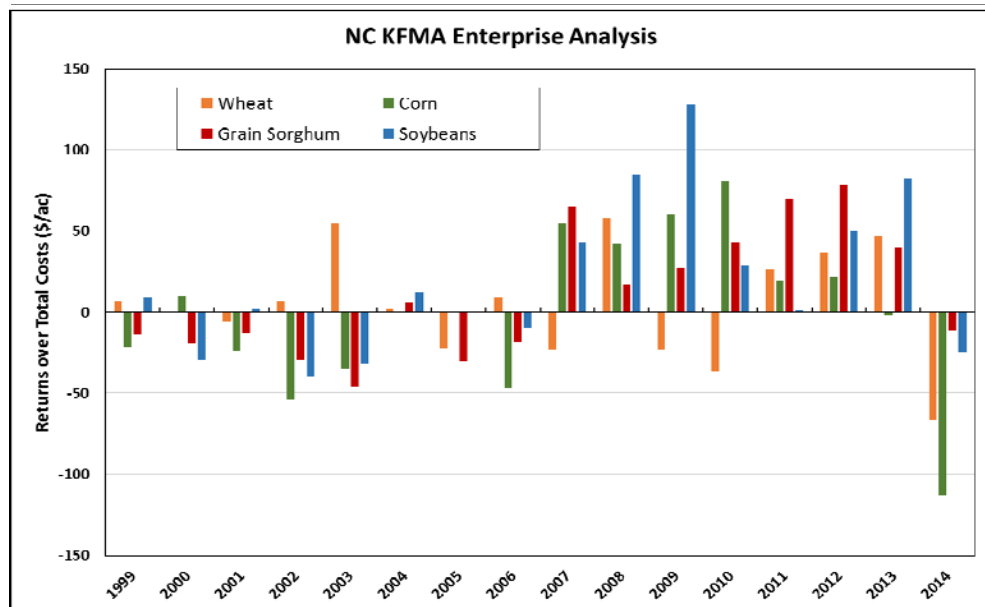


Returns to Farming



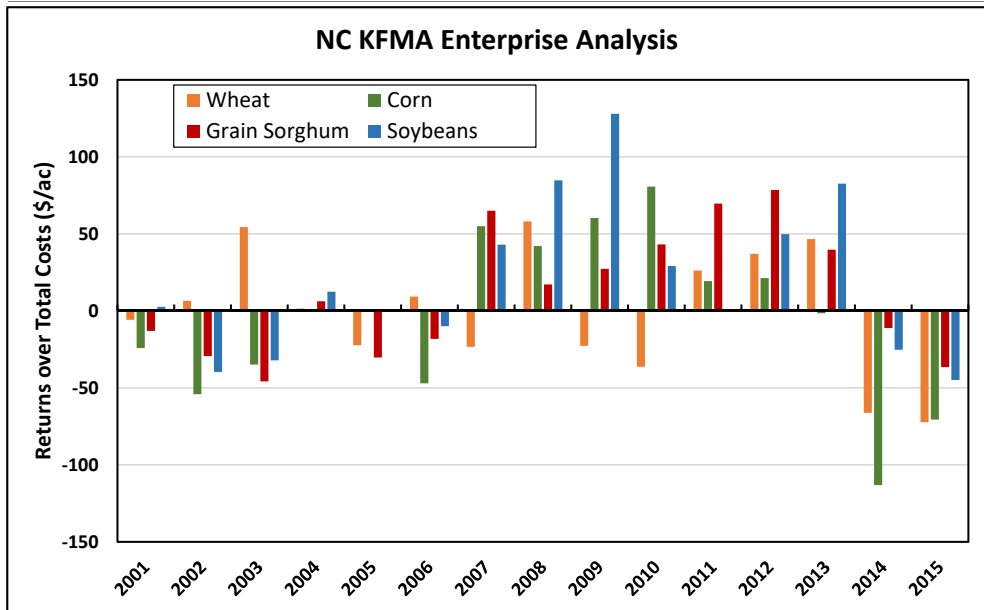
Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)

Returns to Farming



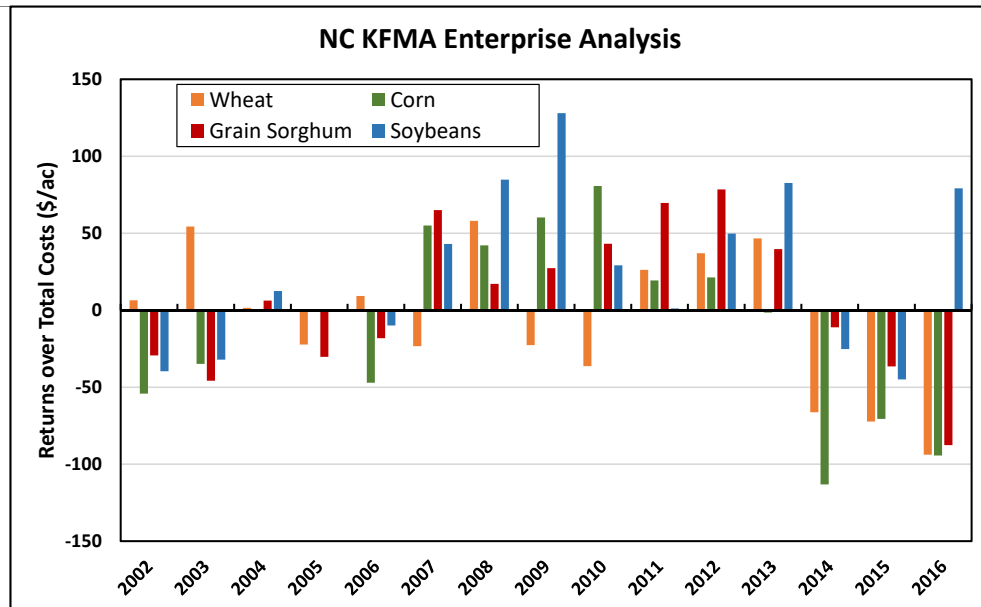
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Returns to Farming



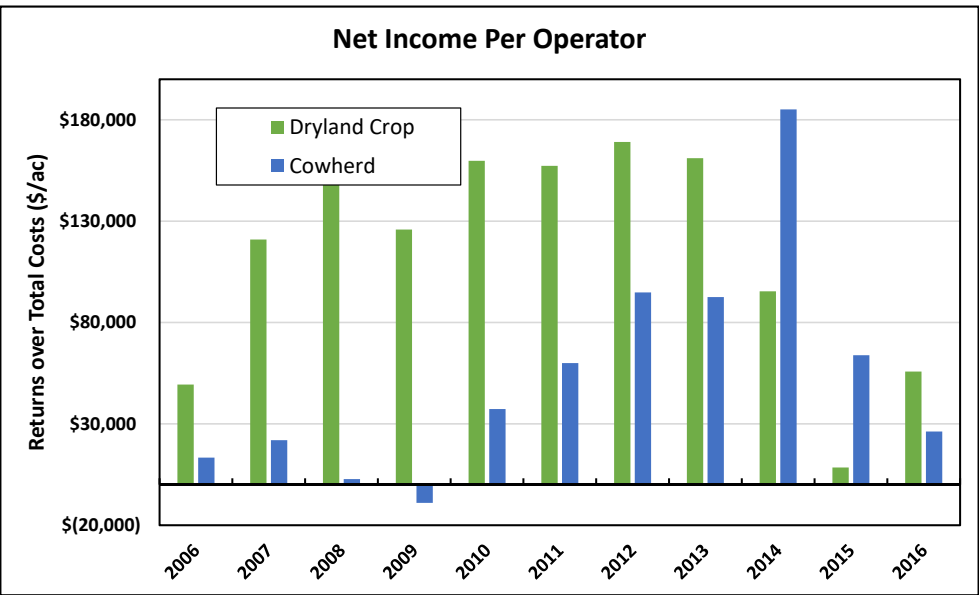
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Returns to Farming

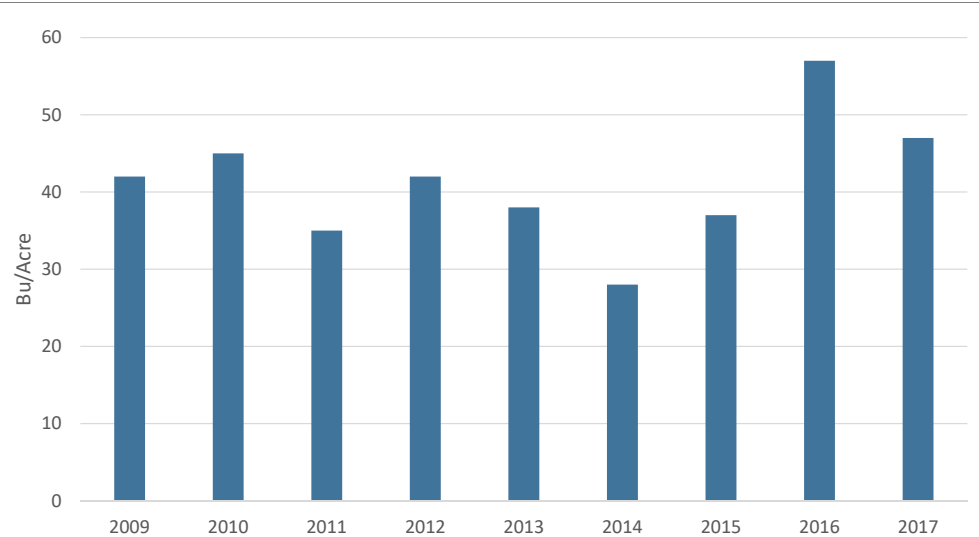


Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)

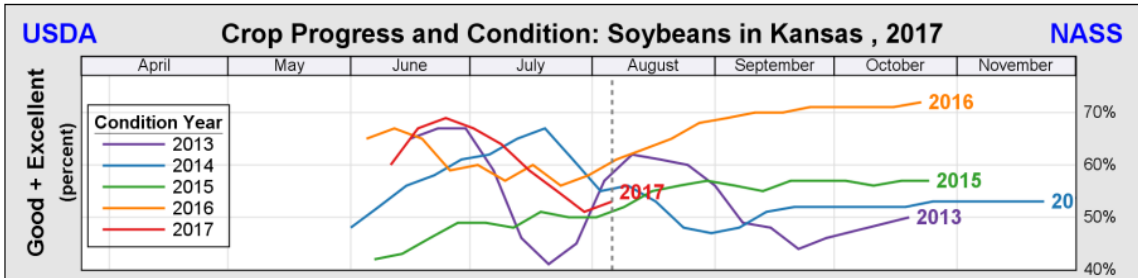
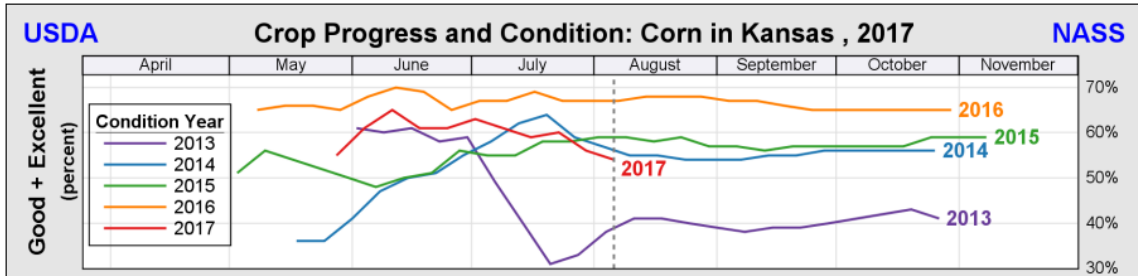
Net Farm and Ranch Income



Kansas Wheat Yield



Kansas Crop Conditions



Land Value Trends



Land Values

Affected by profitability in ag sector

But land values do not adjust as quickly as profitability to changes in commodity prices

Adjustment period due to

- Long-run reasons for buying and holding land
- Expectations of buyers/sellers



Land Values

Where do we get information on land values?

KS Ag Stats Service

- Annual survey series
- Dropped CRD-level estimates in 2013
- Only have a state value for irrigated, non-irrigated, and pasture land in Kansas



United States Department of Agriculture
National Agricultural Statistics Service



News Release

632 SW Van Buren, Room 200, Topeka, Kansas 66603
Media Contact: Jason Lamprecht (785) 233-2250

KANSAS FARM REAL ESTATE VALUE AND CROPLAND RENT HIGHER

TOPEKA, KS, August 2, 2013 -- Kansas's farm real estate value, a measurement of the value of all land and buildings on farms, increased from 2012, according to USDA's National Agricultural Statistics Service. Farm real estate value for 2013 averaged \$1,900 per acre. This is up \$290 per acre or 18 percent higher than last year's revised level.

Cropland value increased 19 percent from last year to \$2,100 per acre. Dryland cropland value averaged \$2,000 per acre, up \$300 from last year. Irrigated cropland value averaged \$3,000 per acre, up \$600 from a year ago. Pastureland, at \$1,250 per acre, increased \$250 from a year ago.

Cash rent paid to landfords in 2013 for cropland also increased from last year. Irrigated cropland rent averaged \$137 per acre, an increase of \$18. Dryland cropland rent averaged \$53 per acre, up slightly from a year earlier. Pasture rented for cash, which averaged \$17.50 per acre, is up \$1.00 from the previous year.

County level averages of 2013 cash rents paid to landfords will be released on September 6 and will be available through NASS Quick Stats. Quick Stats is located at <http://quickstats.nass.usda.gov>.

Access the National publication for this release at:
<http://nd401.library.cornell.edu/usda/current/Agril-andVa/Agril-andVa-08-02-2013.pdf>

Find agricultural statistics for your county, State, and the Nation at www.nass.usda.gov

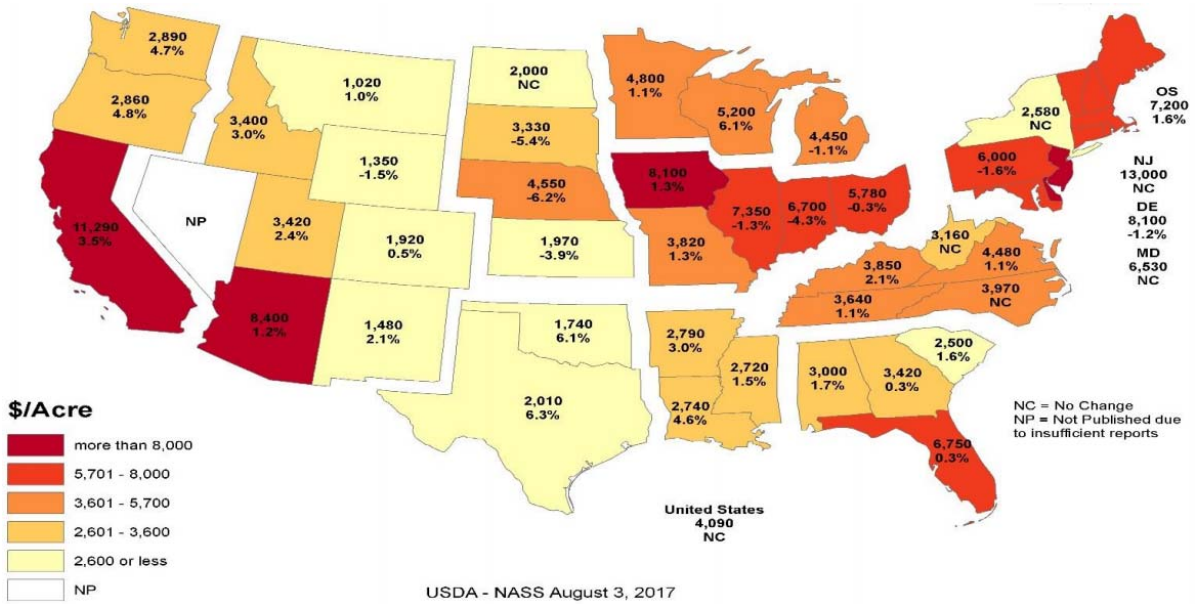
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NASS provides accurate, timely, useful and objective statistics in service to U.S. agriculture. The Agency invites you to express your thoughts and provide occasional feedback on our products and services by joining a data user community. To join, sign in at <http://usda.nassinfo.cornell.edu/yourgroups> and look for "NASS Data User Community".

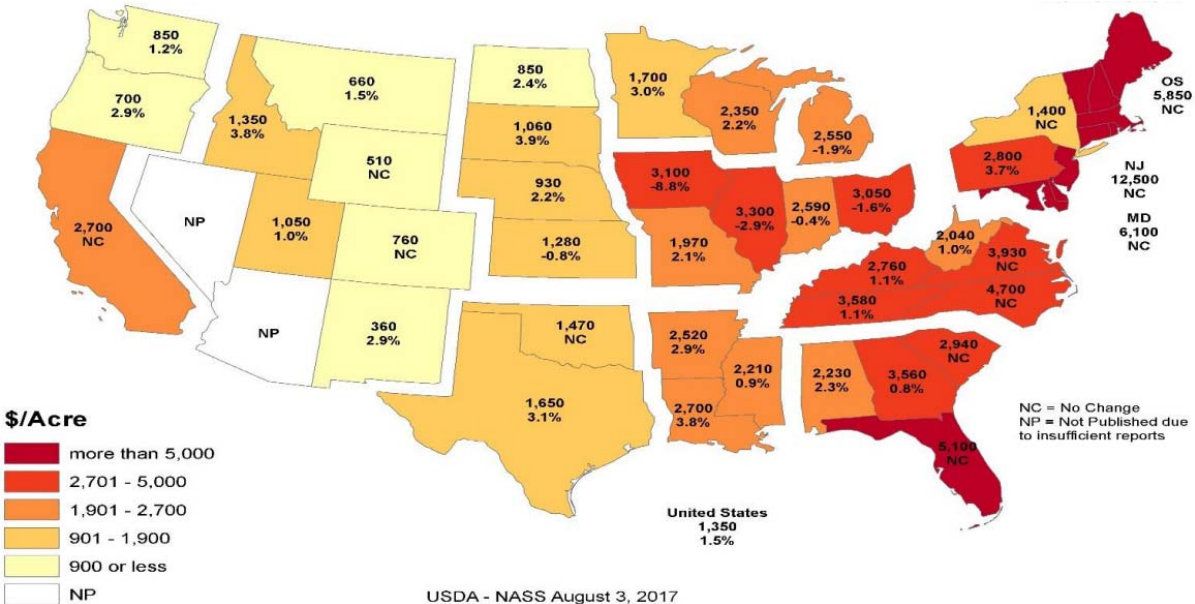
USDA is an equal opportunity provider and employer.



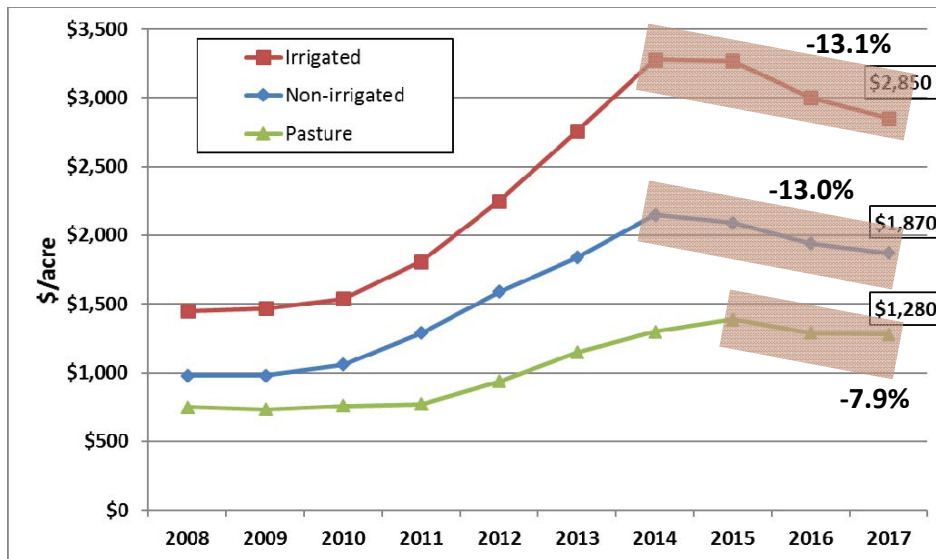
2016 Cropland Values



2016 Pasture Land Values



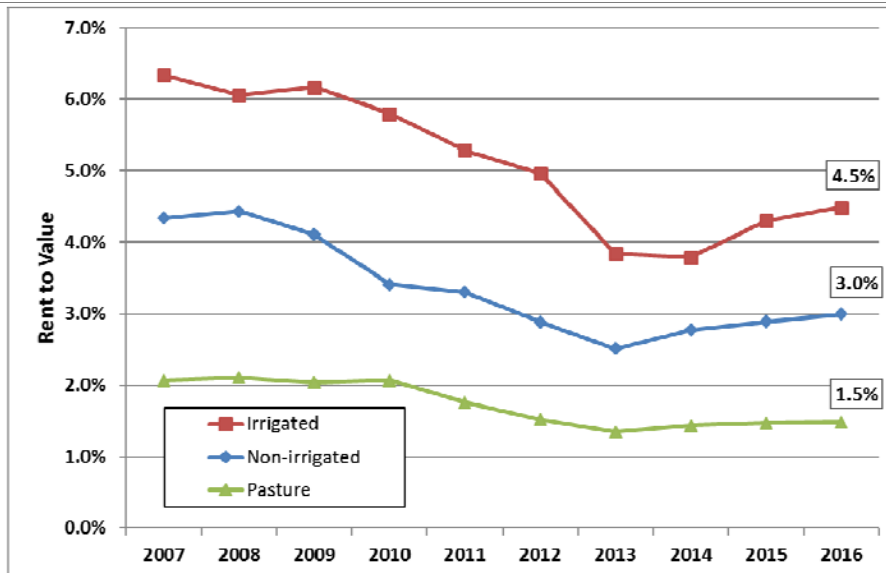
Kansas Land Values



Source: USDA-NASS



Rent-to-Land Value Ratio



Source: USDA-NASS



Kansas Land Values

Potential problems with these data

- Surveys ask for an opinion (read: best guess)
- NOT a market-based estimate
- Don't know the spread, only the average
- Kansas' response rate is relatively low

Can we add to the available information and improve our estimates of land value trends?



Market-Based Land Values



Kansas Land Values

Source for market transaction data

- Property Valuation Department, Topeka

2014-16 sales data

- County location, population density
- Acres in sale
- Mixture of irrigated, non-irrigated and pasture in parcel
- 20-year average rainfall and water-holding capacity
- Enrollment in CRP
- Value of improvements is removed for bare land value
- Parcels under 40 acres are omitted
- Johnson and Wyandotte County parcels removed



PVD Sales Data 2014-2016

2016	Average
Acres in Sale	155.8
CRP Contracts	4.5%
Sales Per County	24.7
All Years	
Total Sales Transactions:	6,845
2016	2,117
2015	2,502
2014	2,333

18% drop in sales



Model-Predicted Sales Price (\$/ac)

Land Type	2016	2015	2014
Non-Irrigated	2,398	2,897	2,835
Irrigated	4,896	5,540	5,444
Pasture	1,726	1,871	1,684
All Cropland and Pasture	\$3,027	\$3,378	\$3,321

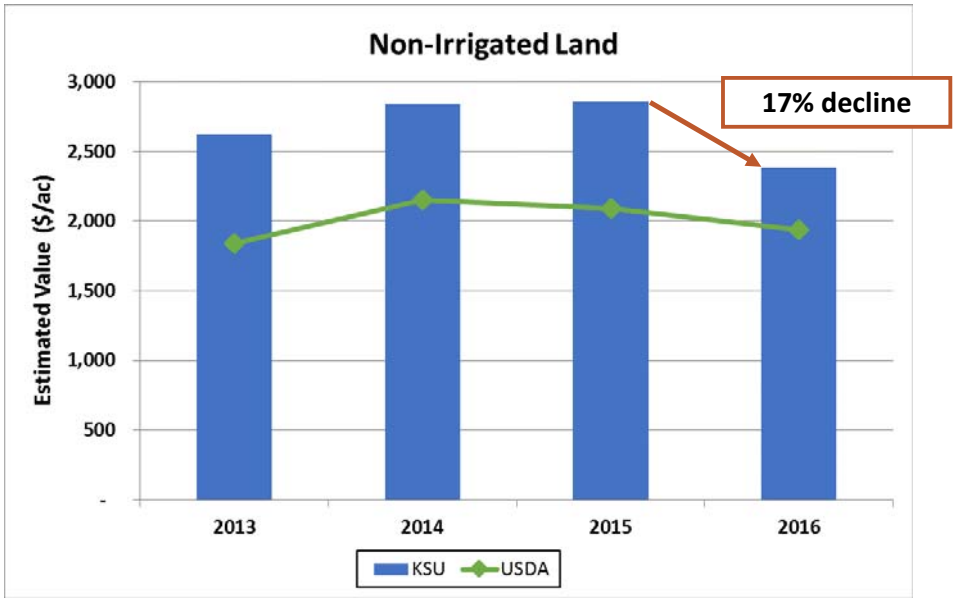
10.4% decline
from 2015



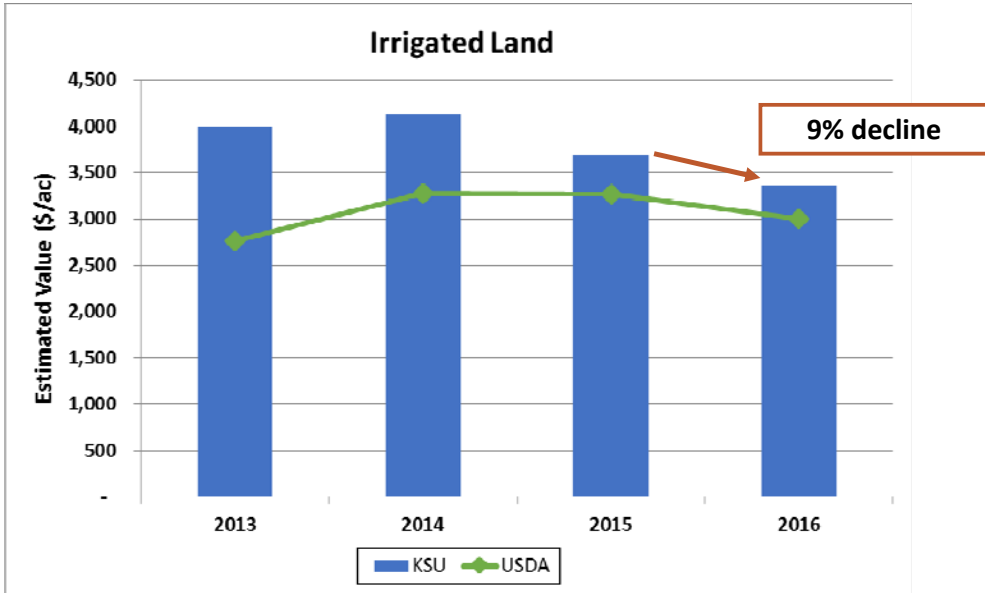
Land Model Results



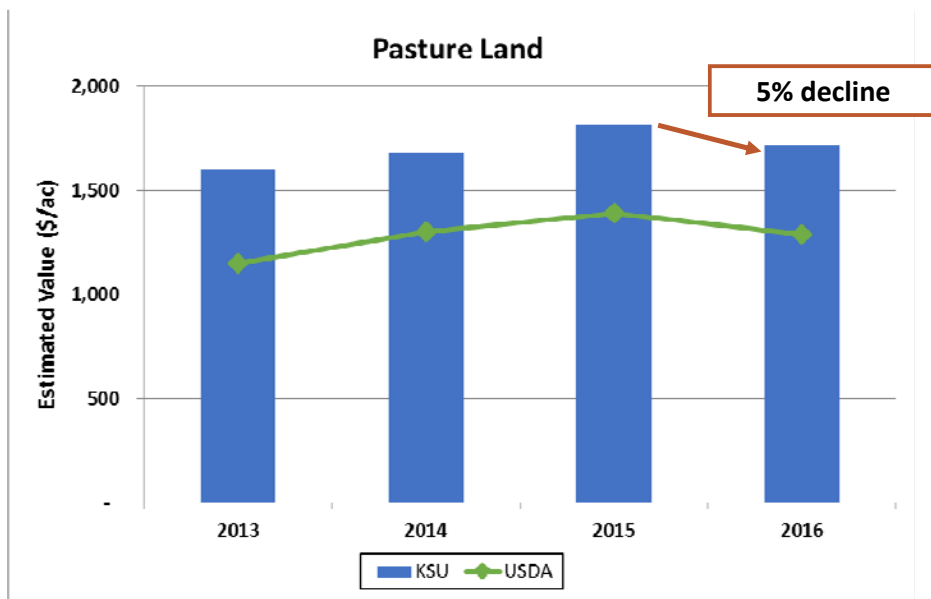
Land Model Results



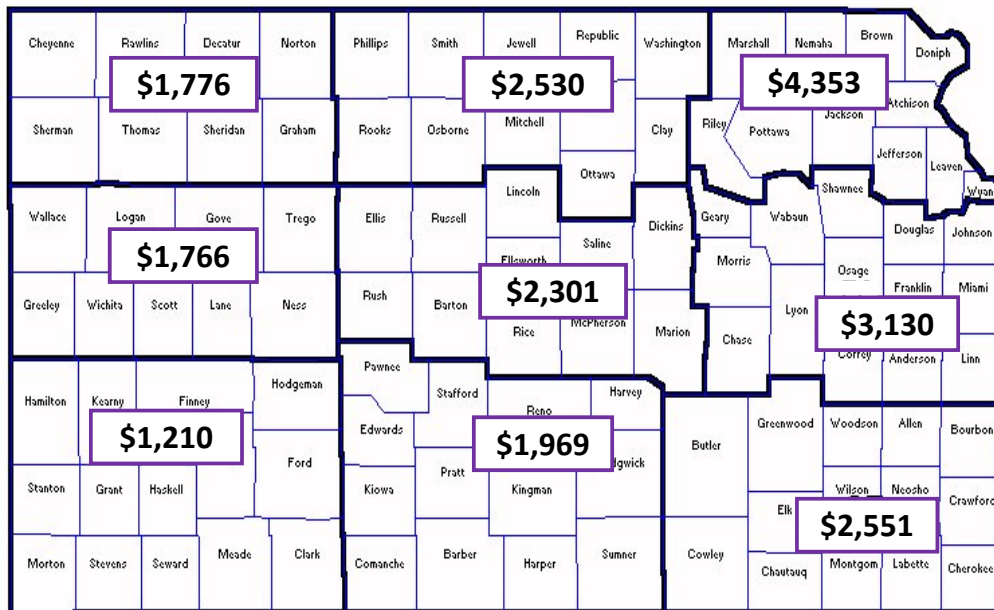
Land Model Results



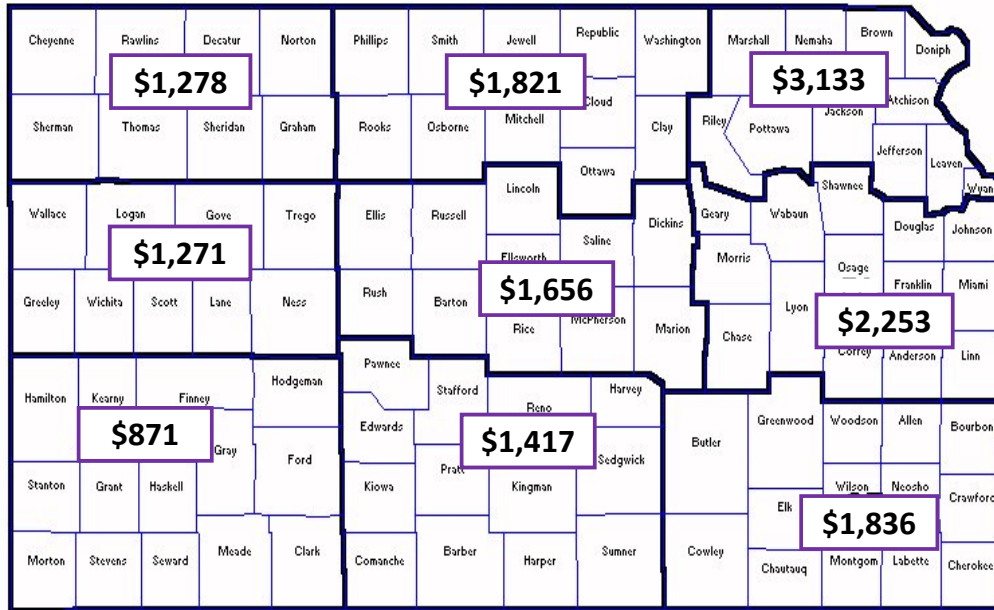
Land Model Results



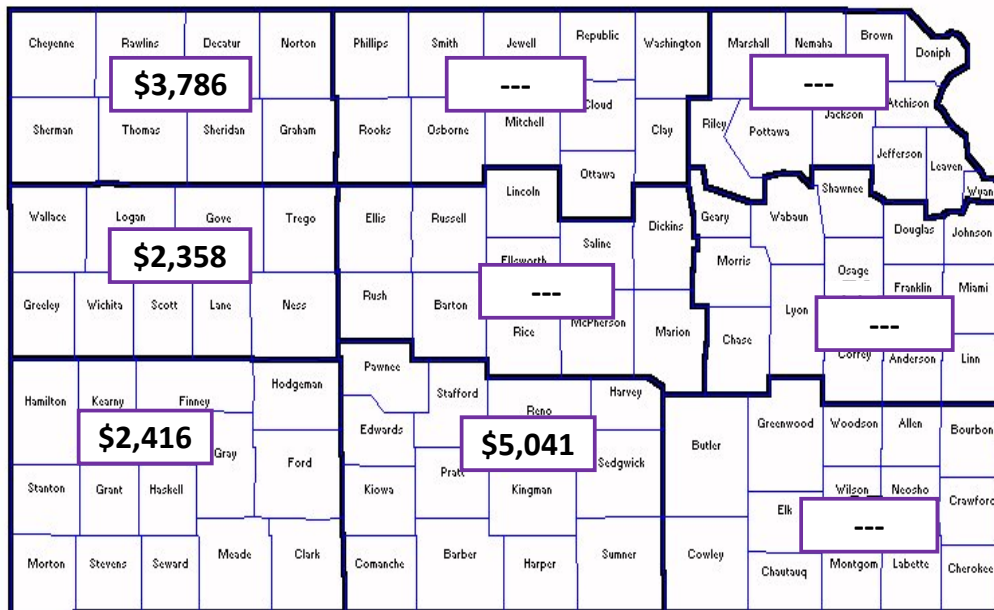
2016 Non-Irrigated Land Values



2016 Pasture Land Values



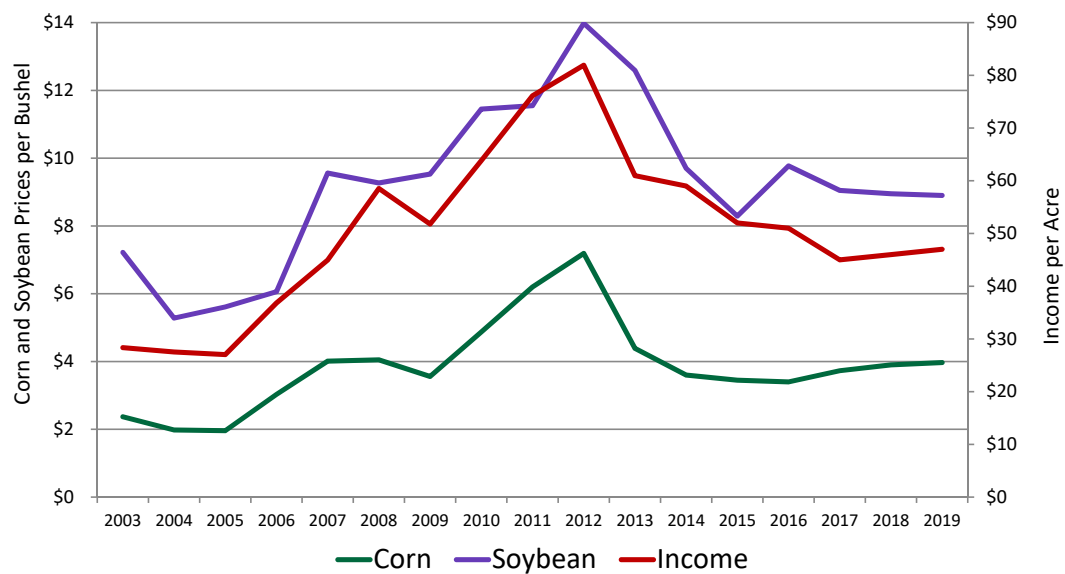
2016 Irrigated Land Values



Long-Run Growth



Projected Income Per Crop Acre



Land Value Impacts

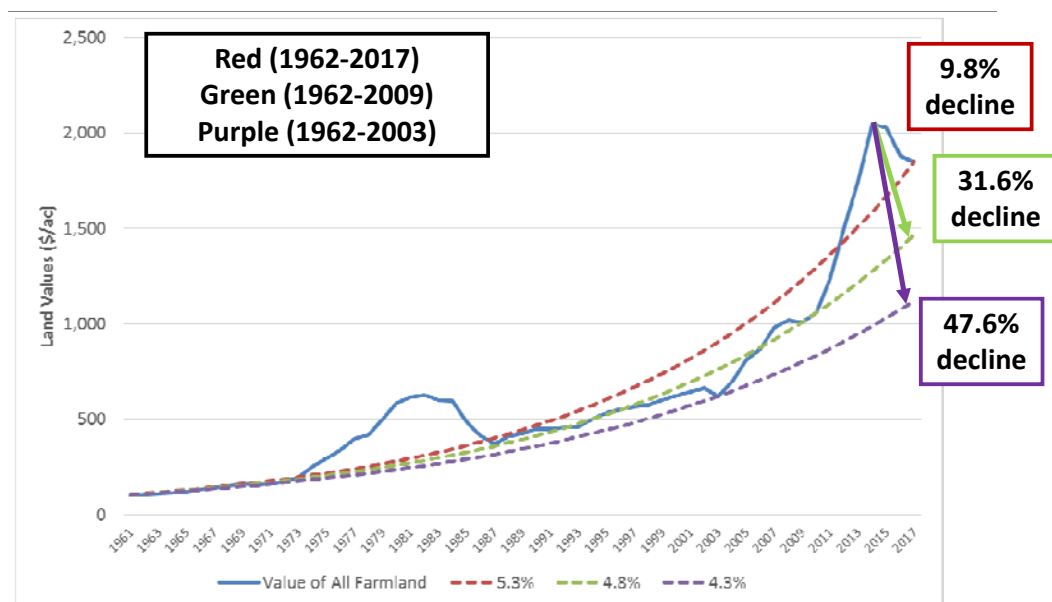
The long-run multiplier is 21.71 or an implied capitalization rate of 4.61%

- Long-run elasticity is 96.9%

At a net farm income per acre of \$46, the projected long-run Kansas (real) land price is \$999, a decline of about 50%



Kansas Land Values



Your Observations...



Your Observations

Responses to the survey from April webinar

- 114 people responded
- Majority of values for Kansas (other states: 6)

Responses by occupation

- Lender: 34%
- Farmer/Rancher: 32%
- Other: 33%



Your Observations

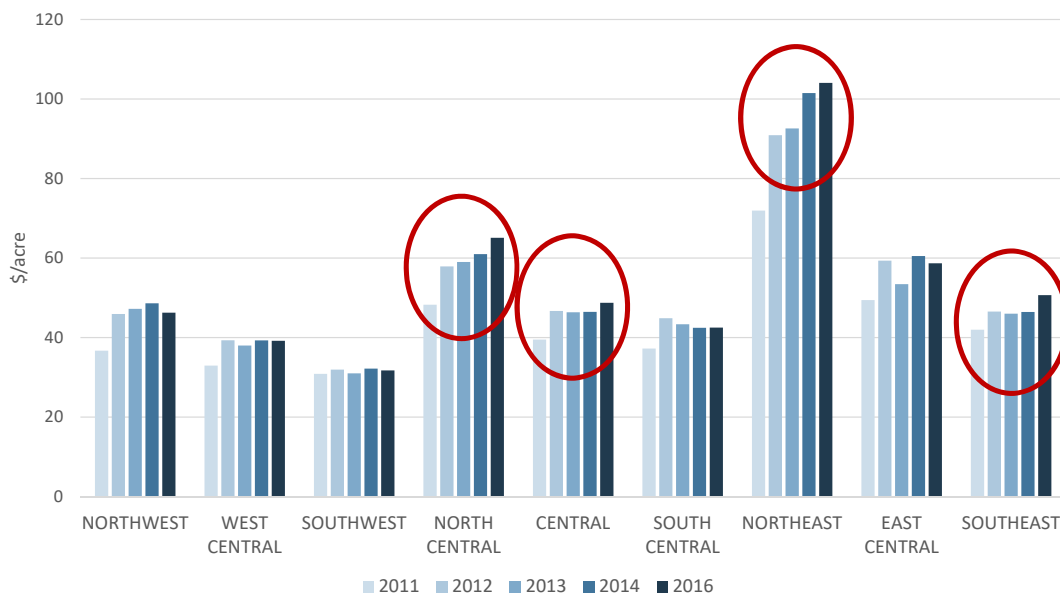
KS Region	Lender	Farmer/Rancher	Other
NE	-11%	-7%	-4%
SE	-5%	0%	0%
NC	-10%	-6%	-5%
SC	-9%	-3%	-7%
NW	-20%	-6%	-16%
SW	-13%	-9%	-14%
Average	-11.3%	-5.2%	-7.7%



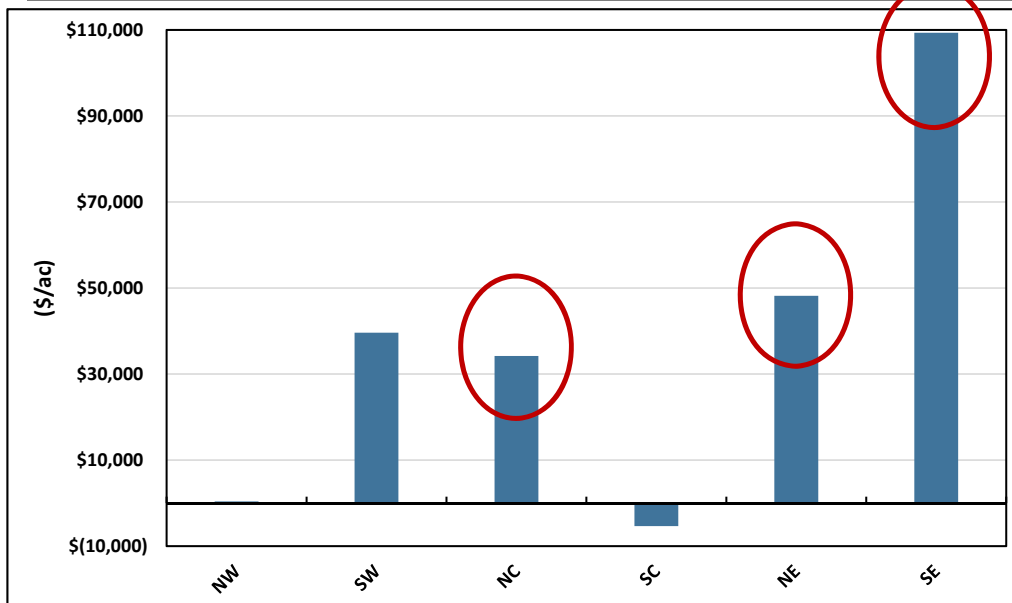
Rental Rates



Rental Rates



Average Net Farm Income



Summary



Summary

Land values have decreased since market high in 2015

- Non-irrigated cropland: -17%
- Irrigated cropland: -9%
- Pasture: -5%

Long-run trends indicate downward movement will continue into 2017 and possibly beyond

- Up to a 50% decline from highest value



Other Comments

Appraiser in Central Kansas

- “Attended 3 auctions in past 5 weeks. There only 12 people at one of them. At another, there were over 100 people, but only 3 bidders.”

Farmers are the biggest buyers of farmland

- When farmers are reluctant to buy, demand falls and isn't likely to be sufficiently supported by outside investment
- Turnaround will happen when projections for net farm income rebound



Current Research



Current Research

CRP impacts on land values

- Length of contract at time of sale affects land value
- Highest value land when contract about to expire

Value of social capital

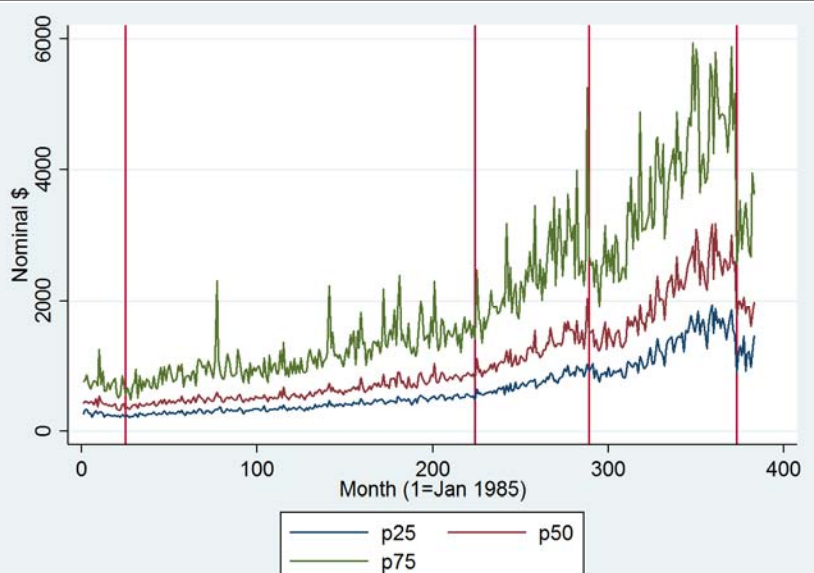
- As length of leasing relationship grows, rent declines (14%)
- Landlords living in same county ask less for rent (16%)

Rate of change of high versus low priced farmland

- High priced ground gains and loses value at a faster rate



Land values over time



Online Resources

2016 Kansas County-Level Ag Land Values

- www.agmanager.info/land-leasing/land-buying-valuing

2017 Rent Estimates: Non-Irr. & Irrigated Cropland

- www.agmanager.info/land-leasing/land-rental-rates

Pasture Rental Rate Tool

- www.agmanager.info/land-leasing/land-rental-rates/pasture-rental-rate-decision-tool

