



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



ARE CASH RENTS STICKY? ANALYSIS OF COUNTY LEVEL DATA

LAWSON CONNOR, LOUISIANA STATE UNIVERSITY

ANA CLAUDIA SANT'ANNA, WEST VIRGINIA UNIVERSITY



NC-1177 2020 Virtual Annual Meeting, October 22nd, 2020

THE LITERATURE HAS IDENTIFIED MULTIPLE CASH RENT DRIVERS. THEIR EFFECTS LIKELY VARIES ACROSS REGIONS

Driver	Effect	Source
Government subsidies	positive	Kirwan (2009)
Farmland concentration	negative	
Contract length	negative	Taylor and Featherstone (2018)
Government subsidies	positive	Zhang et al. (2020)
Location		
Growing Season (e.g. Corn Prices)	positive	Schnitkey and Sherrick (2018)
Agricultural profitability	positive	Kuethé and Bigelow (2018)
Market competition		
Tariffs	negative	Yu, Villoria and Hendricks (2020)

OBJECTIVES AND DATA

Objectives

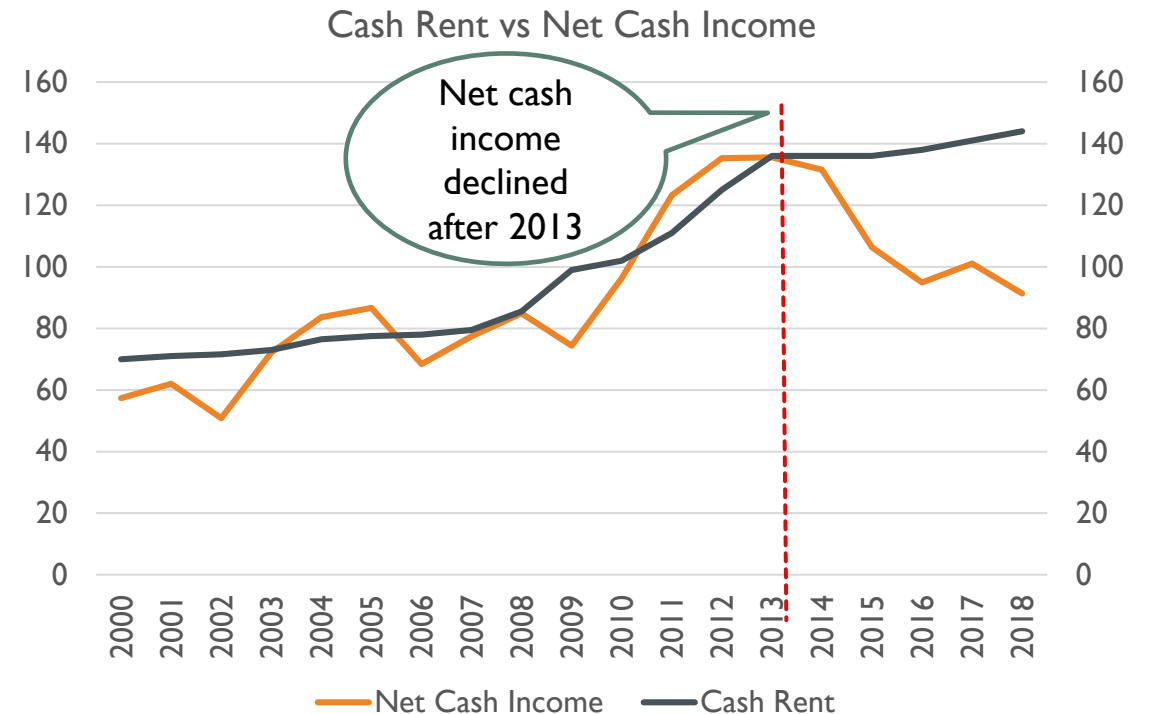
- To investigate the existence of asymmetric response of cash rental rates to economic drivers

Data

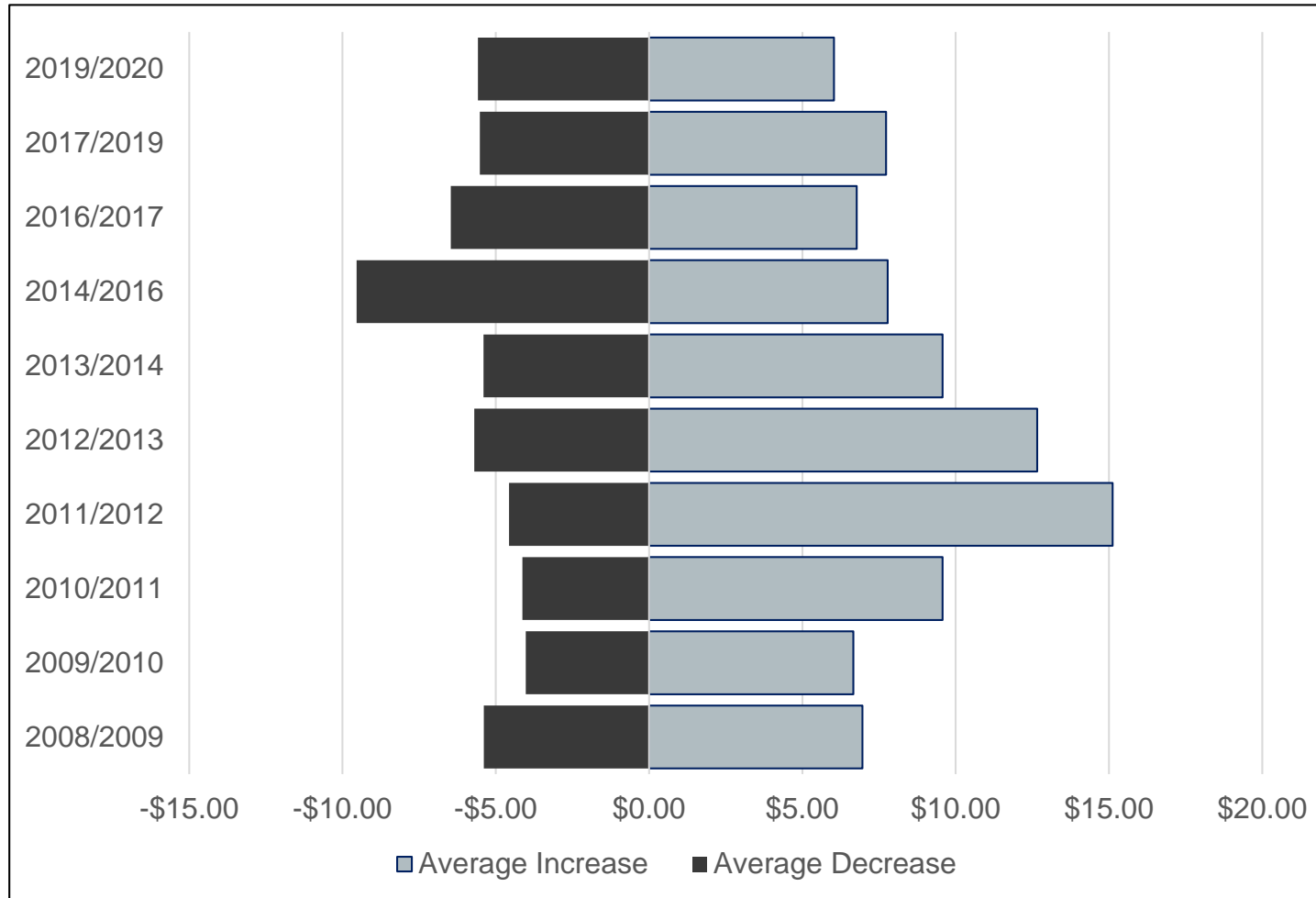
- USDA county level cash rent data for non-irrigated crop land.
- Data spans 2008 to 2020
- Data missing 2015 and 2018

Methods

- We use descriptive analysis, national mapping and frequency analysis common in the sticky price literature



ON AVERAGE RENT DECREASES ARE SMALLER THAN INCREASES



INCREASES IN CASH RENTS ARE MORE FREQUENT EVEN IN TIMES OF LOW INFLATION AND FARM INCOME DOWNTURN

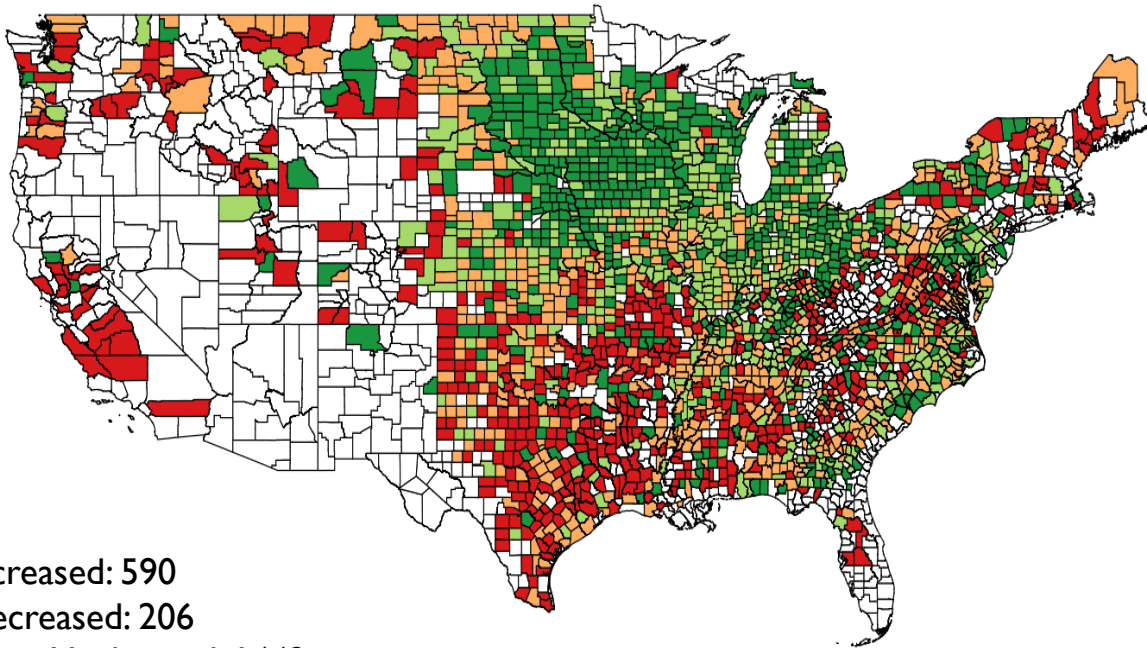
	Year							
	2009	2010	2011	2012	2013	2014	2016	2017
Inflation (% , average annual rate)	-0.4	1.6	3.2	2.1	1.5	1.6	1.3	2.1
Mean Size of Changes (%)	2.2	3.6	5.7	8.9	6.8	5.6	1.9	1.8
Frequency+ / Frequency-:								
Cash Rent	2.7	2.3	2.0	2.5	2.2	1.9	1.0	1.1
Farm Earnings	0.5	1.1	2.0	0.9	2.6	0.5	0.4	1.2
Government Payments	0.8	1.3	0.5	1.7	1.2	0.6	2.0	0.9

INCREASES IN CASH RENTS ARE MORE FREQUENT EVEN IN TIMES OF LOW INFLATION AND FARM INCOME DOWNTURN

	Year							
	2009	2010	2011	2012	2013	2014	2016	2017
Inflation (% , average annual rate)	-0.4	1.6	3.2	2.1	1.5	1.6	1.3	2.1
Mean Size of Changes (%)	2.2	3.6	5.7	8.9	6.8	5.6	1.9	1.8
Frequency+ / Frequency-:								
Cash Rent	2.7	2.3	2.0	2.5	2.2	1.9	1.0	1.1
Farm Earnings	0.5	1.1	2.0	0.9	2.6	0.5	0.4	1.2
Government Payments	0.8	1.3	0.5	1.7	1.2	0.6	2.0	0.9

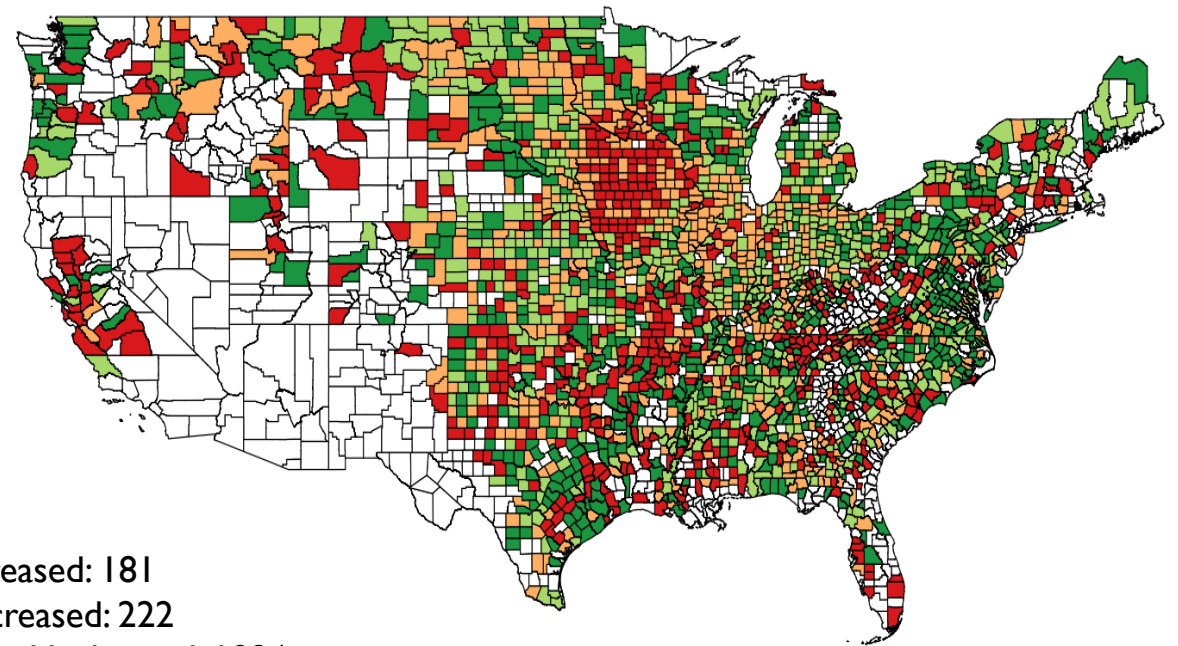
CASH RENTS MORE RESPONSIVE IN THE MIDWEST. NATIONAL CASH RENT STICKINESS PARTIALLY DRIVEN BY REGIONAL COUNTERCYCLICAL RESPONSES

Average Cash Rent Growth 2011 - 2013



Increased: 590
Decreased: 206
Near Unchanged: 1442
N: 2238

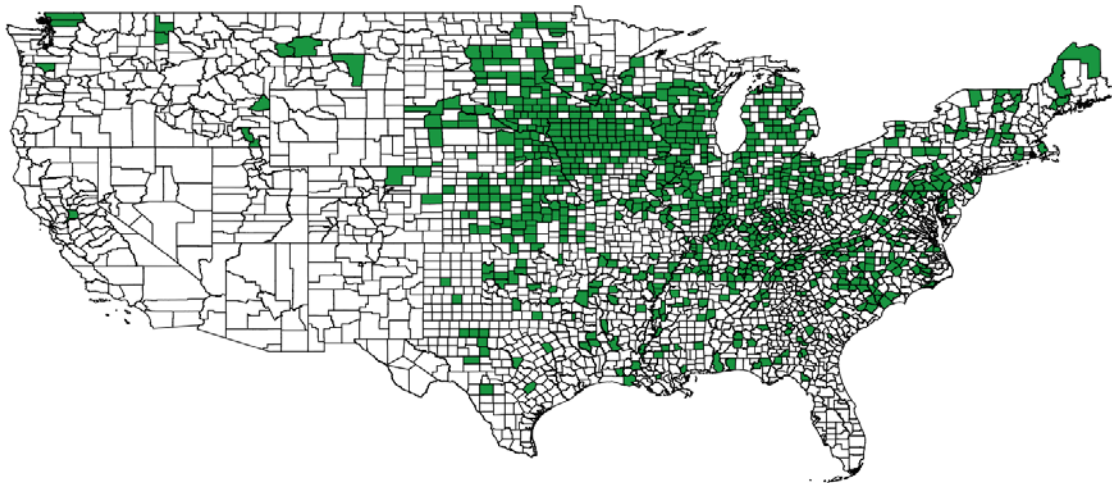
Average Cash Rent Growth 2014 - 2017



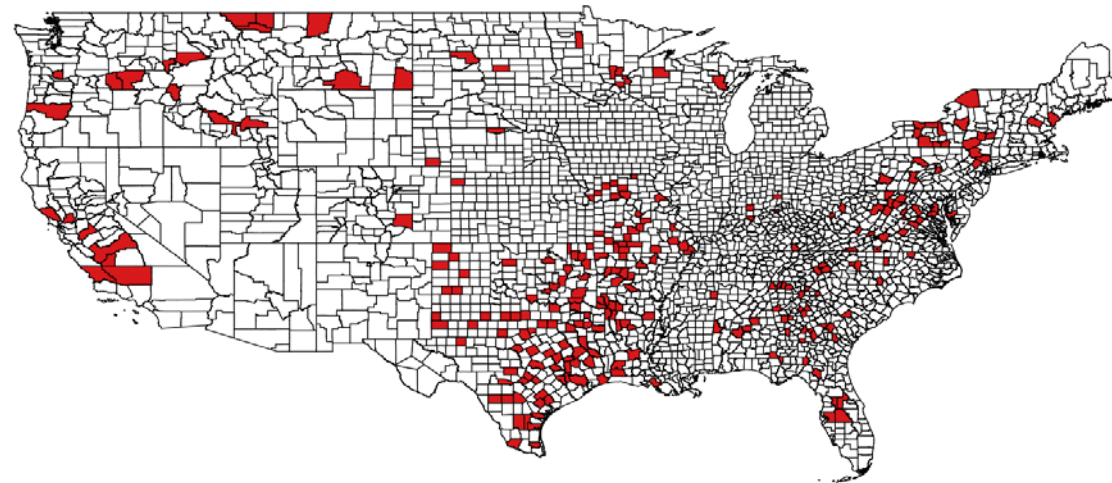
Increased: 181
Decreased: 222
Near Unchanged: 1884
N: 2287

CASH RENTS IN THE MIDWEST APPEAR PRO-CYCLICAL WITH THE WIDER FARM ECONOMY. SOUTHWEST SAW CONCENTRATION OF DECREASING RENTS AS FARM ECONOMY EXPANDED

Counties with cash rent growth rates above 0.1% between 2012 and 2013

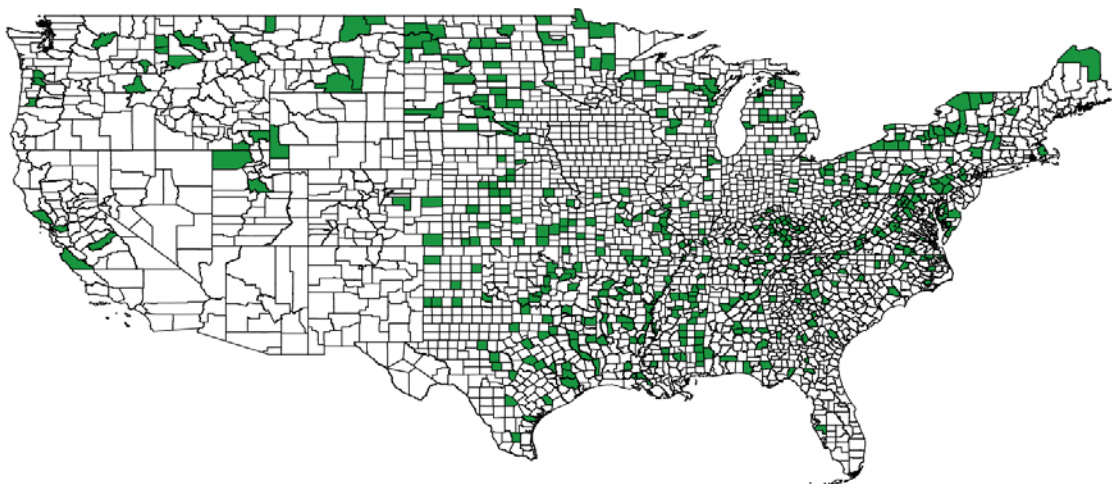


Counties with cash rent growth rates below -0.1% between 2012 and 2013

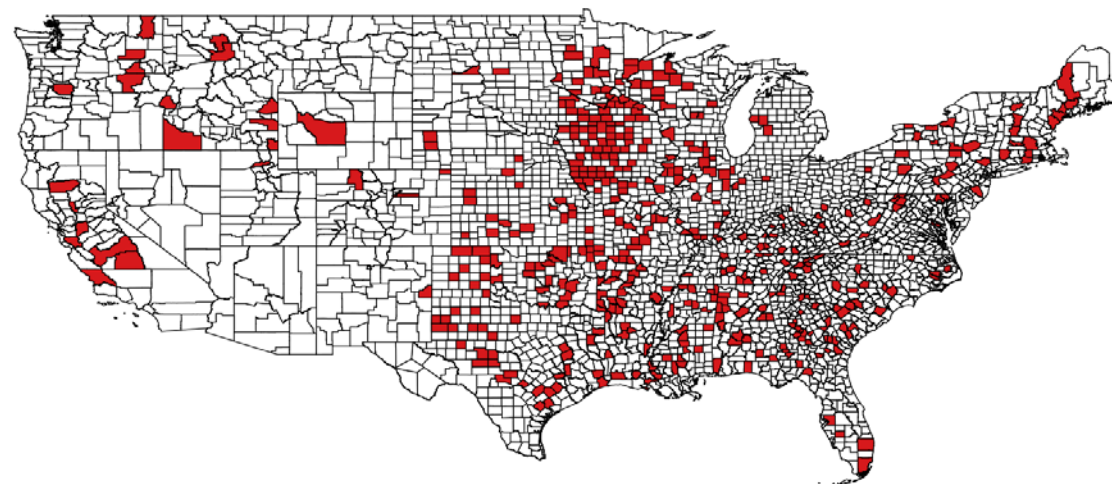


AS FARM ECONOMY CONTRACTED CASH RENTAL RATES DECLINED IN THE MIDWEST BUT INCREASED IN SOME AREAS MOSTLY OUTSIDE OF THE MIDWEST

Counties with cash rent growth rates above 0.1% between 2014 and 2016

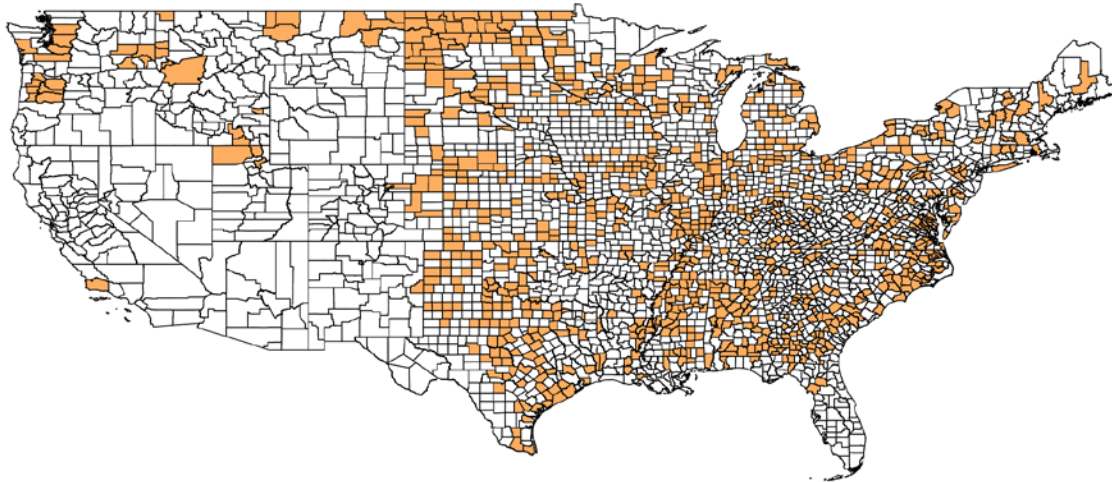


Counties with cash rent growth rates below -0.1% between 2014 and 2016

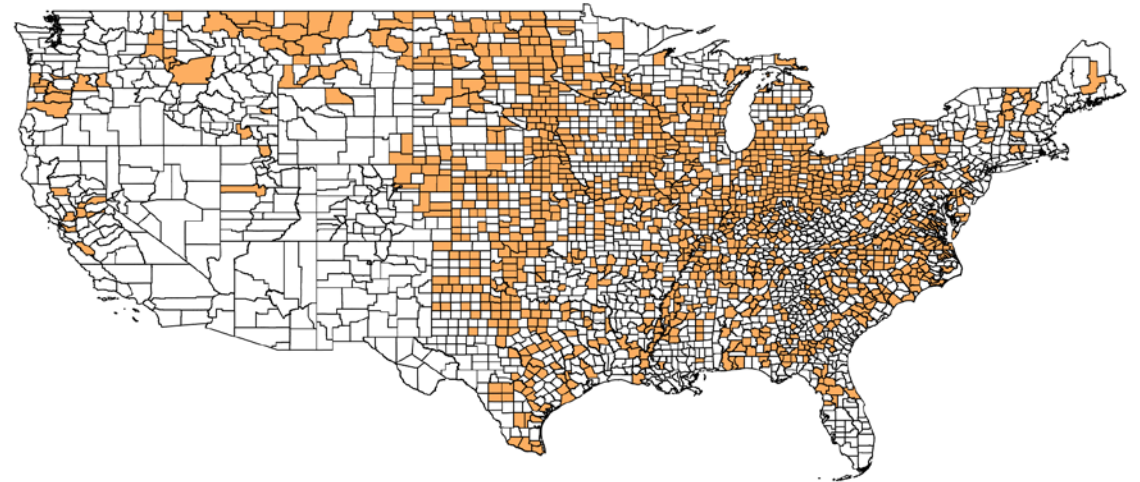


MANY MORE COUNTIES NATIONALLY SAW CASH RENTS REMAIN STABLE DURING THE FARM ECONOMY DOWNTURN THAN PRIOR TO IT

Counties with cash rent growth rates between -0.1% and 0.1%: 2012 - 2013



Counties with cash rent growth rates between -0.1% and 0.1%: 2014 - 2016



OBSERVATIONS FROM DRIVERS

- Asymmetric behavior of cash rent
- Cash rents decrease in times of downturn but proportionately less than other economics indicators
- National level cash rent stickiness partially driven by regional heterogeneity
- Regional variation to cash rent responsiveness is heterogeneous:
 - Midwest acres mostly follow the general farm economy
 - Southwest acres are generally countercyclical with the farm economy



THANK YOU

"SUPPORTED BY MULTI-STATE HATCH WVA 00731"

