

# Impacts of Agricultural Downturn on Farms and Communities

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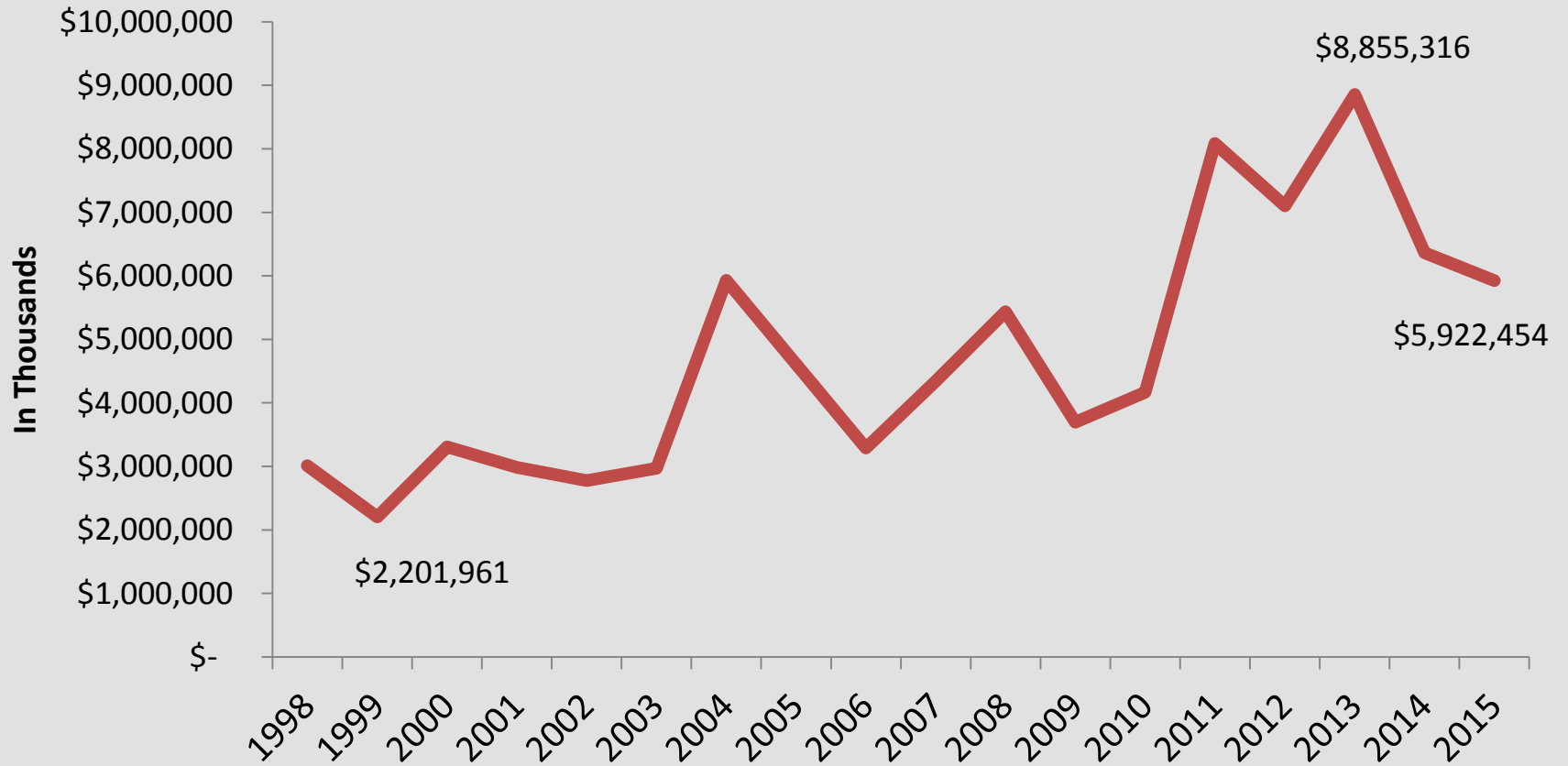
# Context

- Midwest has had sharp swings in ag sector profitability over the years
- Many farmers in the Midwest are currently struggling due to low commodity prices
- The role of the federal government in addressing ag stress has evolved, and there are offsets to reduced profitability
- The consequences of ag booms and busts are felt differentially among the states
- Rural area economic health has other important structural hurdles to overcome

# **A Look Back**

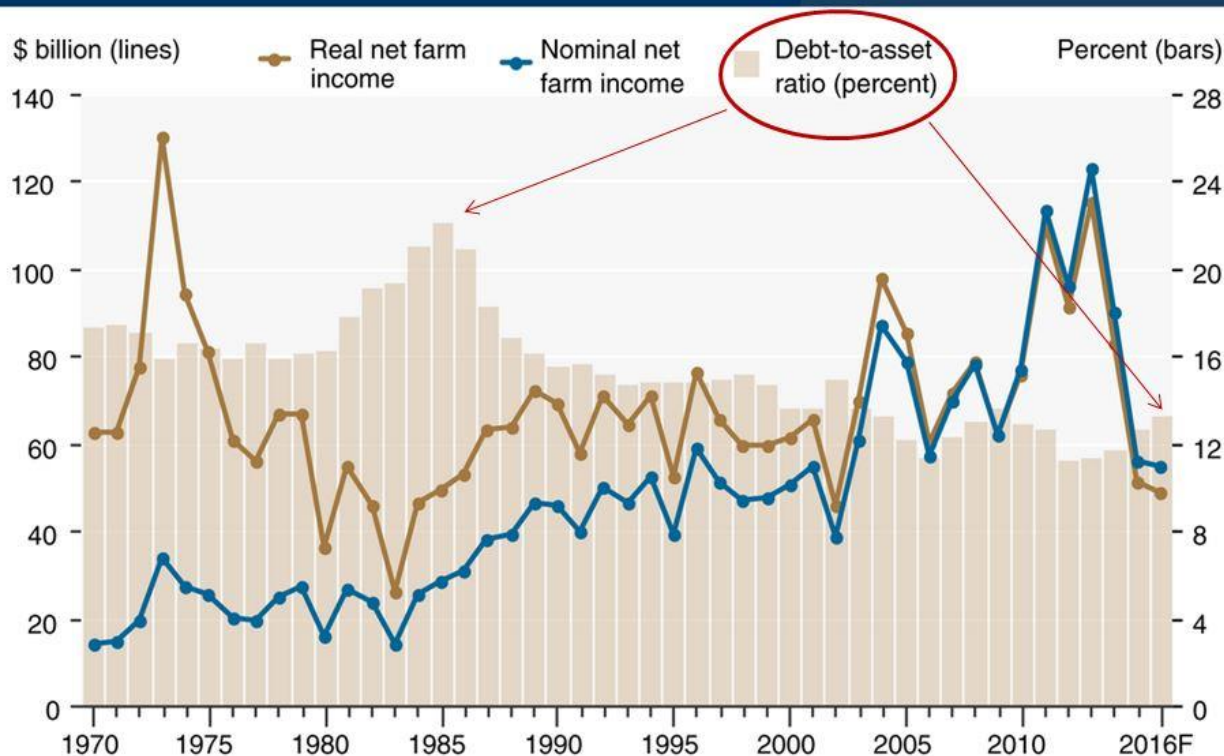
# Swing in Farm Earnings is Stark

Iowa Farm Earnings in Constant \$2015 Amounts



# Farmer financial conditions are not what they were in the 1980s

U.S. net farm income (nominal and real) and farm sector debt-to-asset ratios, 1970-2016F



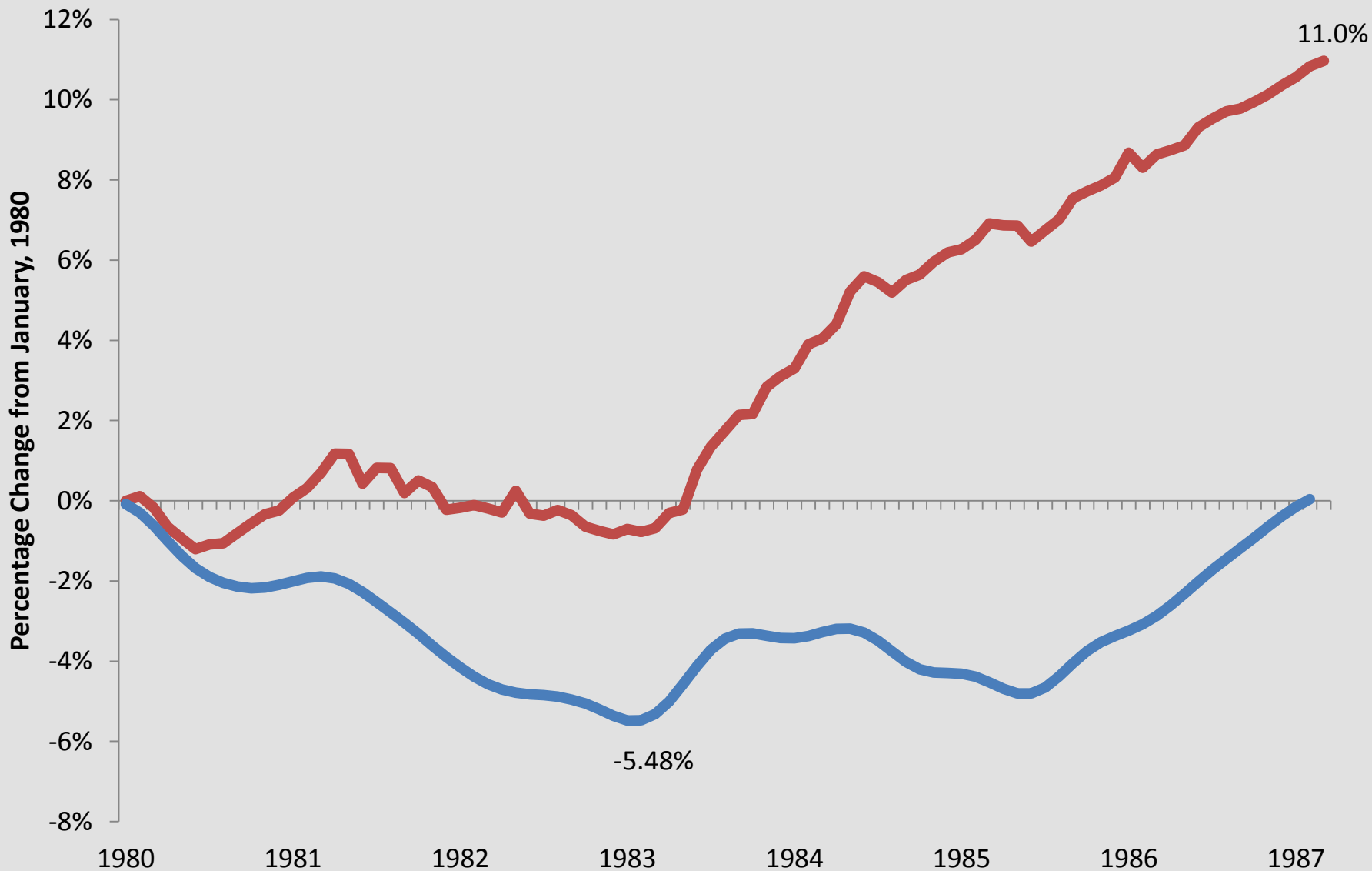
Note: F = Forecast. The gross domestic product (GDP) chain-type price index is used to convert the nominal (current-dollar) statistics to real (inflation-adjusted) amounts (2009=100).

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

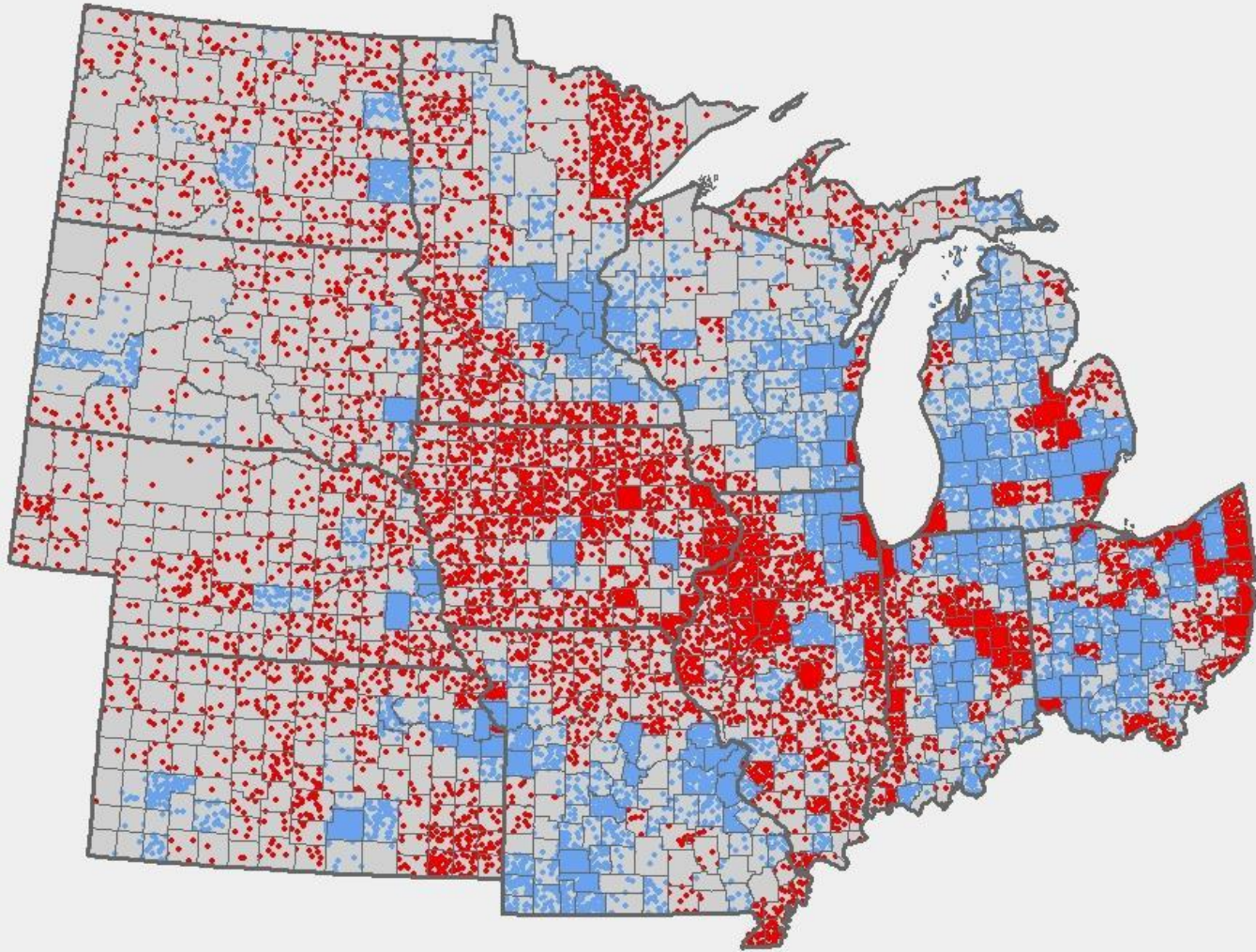
Data as of February 9, 2016.

# Cumulative Change in Employment: January 1980 = Baseline

U.S. Iowa



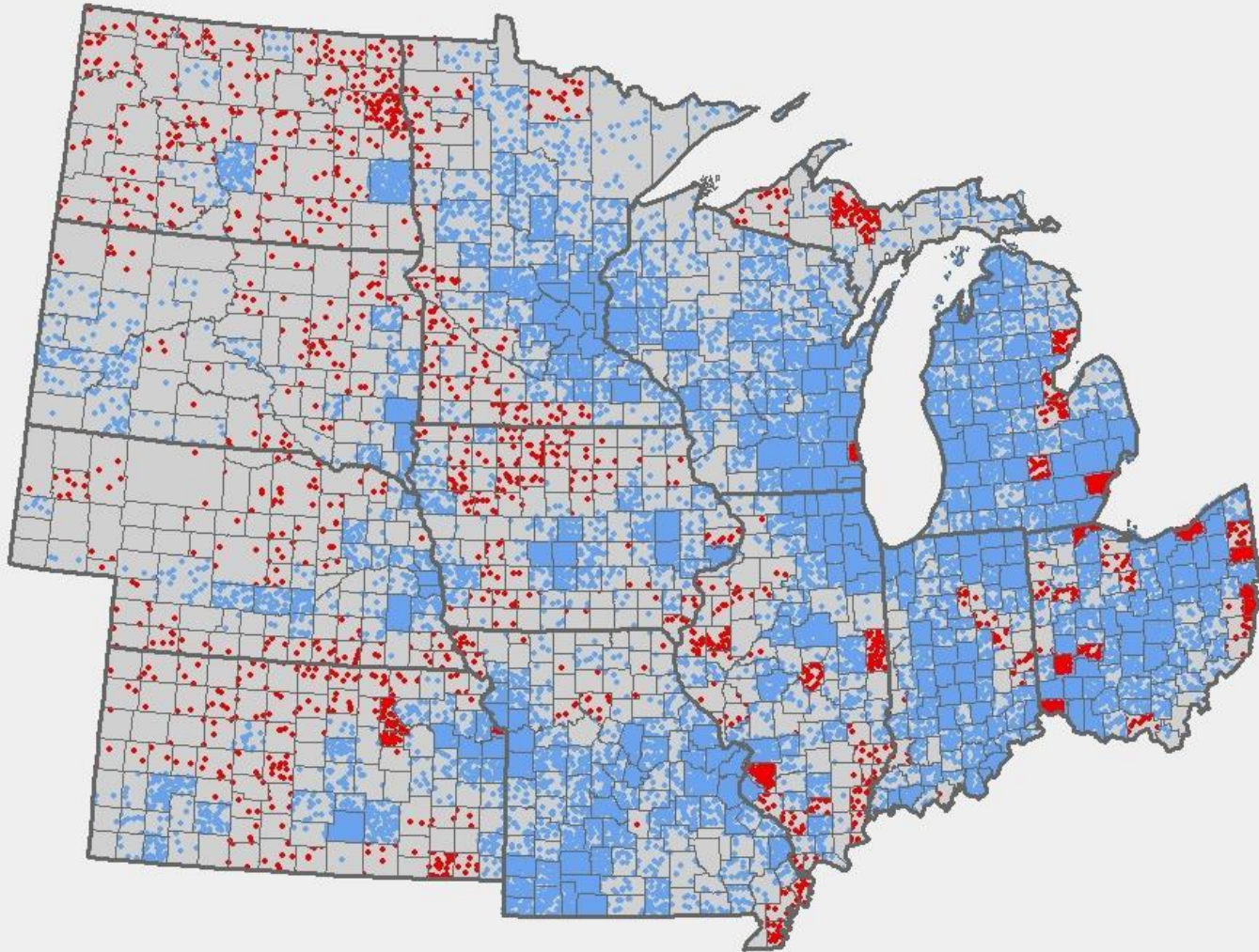
# County Population Change from 1980-1990



Each dot represents a gain (blue) or loss (red) of 100 residents



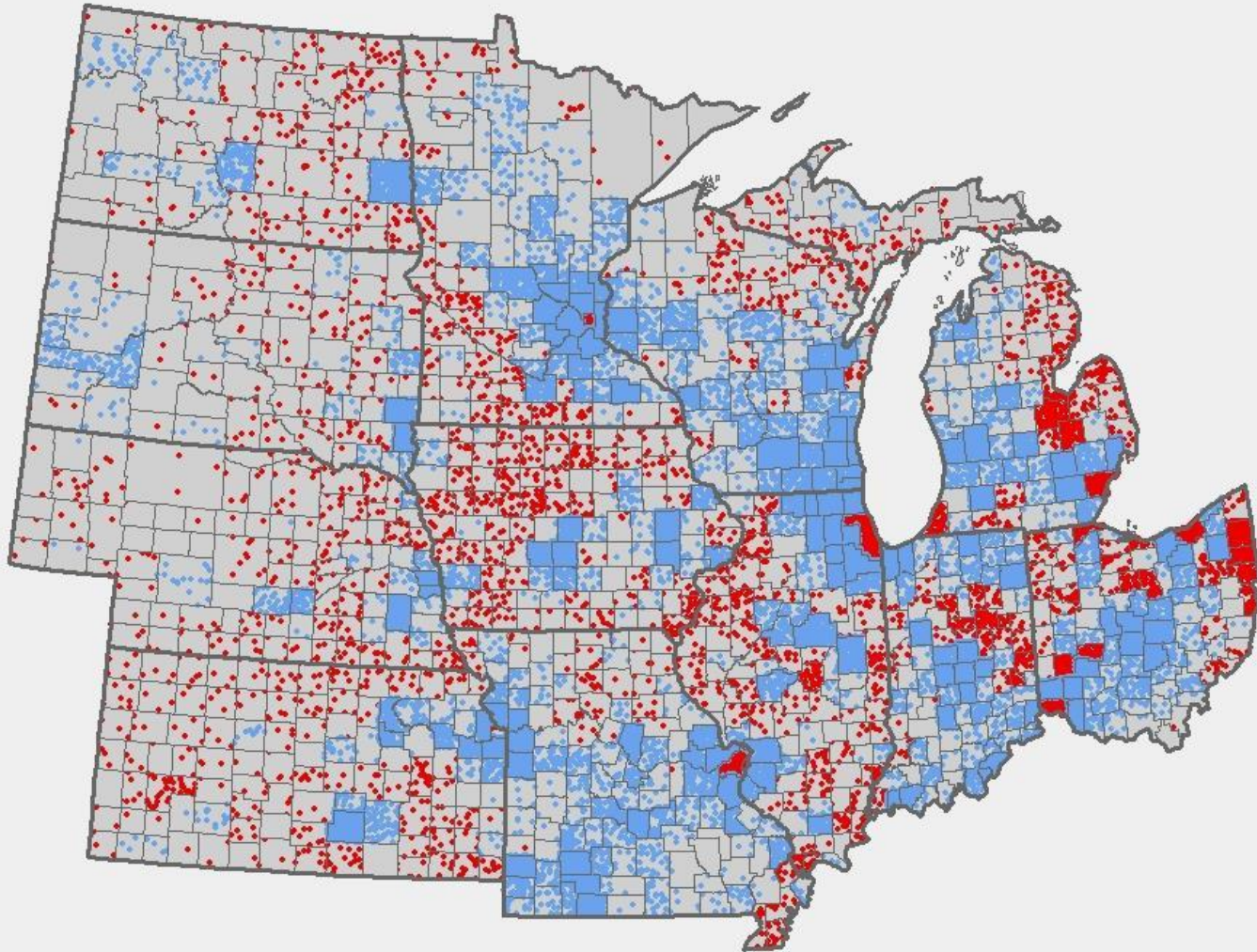
# County Population Change from 1990-2000



Each dot represents a gain (blue) or loss (red) of 100 residents



# County Population Change from 2000-2010

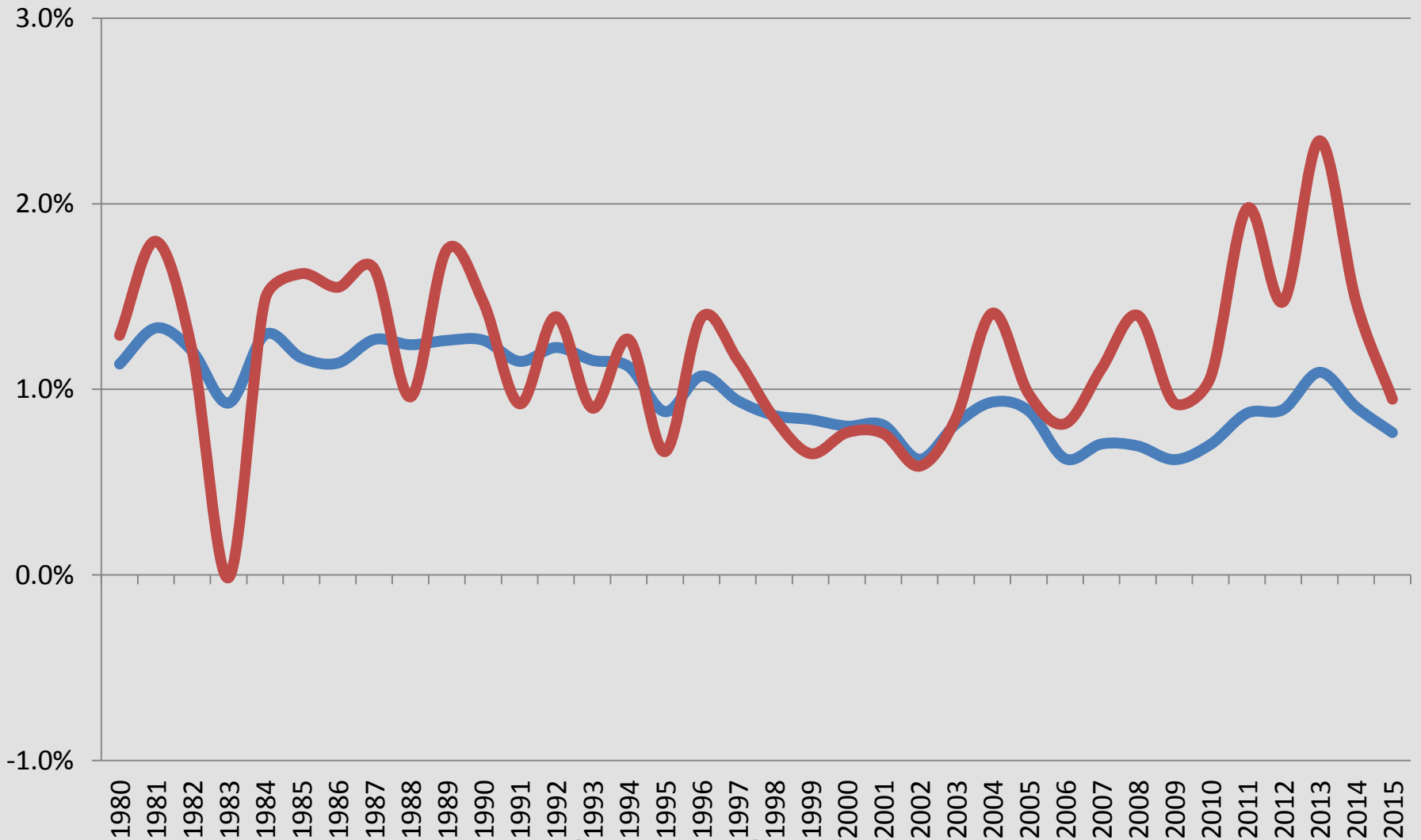


Each dot represents a gain (blue) or loss (red) of 100 residents

# Farm Earnings In Comparison

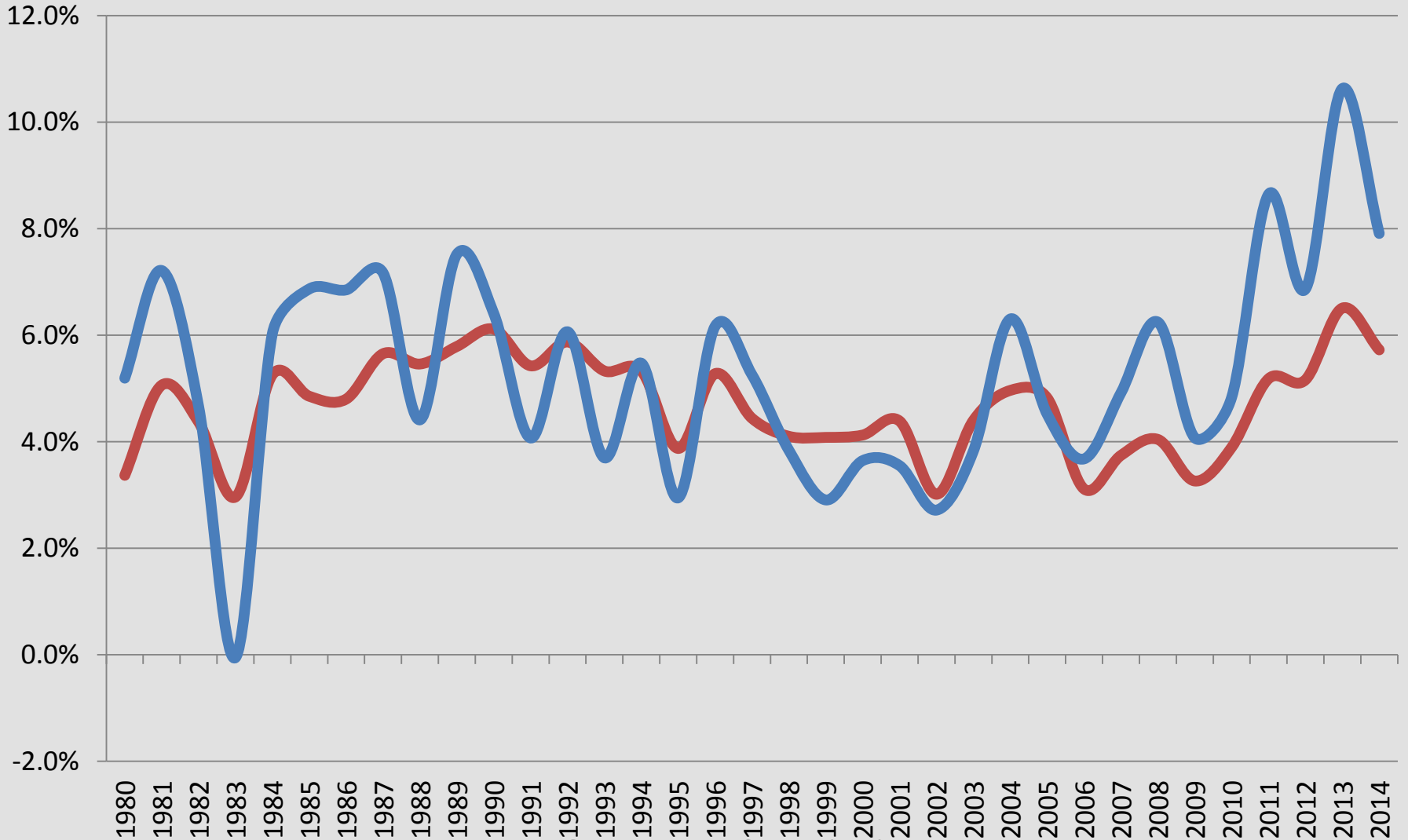
# Farm Earnings as Percentages of Total Earnings for Chicago Fed States and the Rest of the U.S.

Rest of U.S. Region



# NonMetropolitan Area Farm Earnings as Percentages of Total Earnings for Chicago Fed States and the Rest of the U.S.

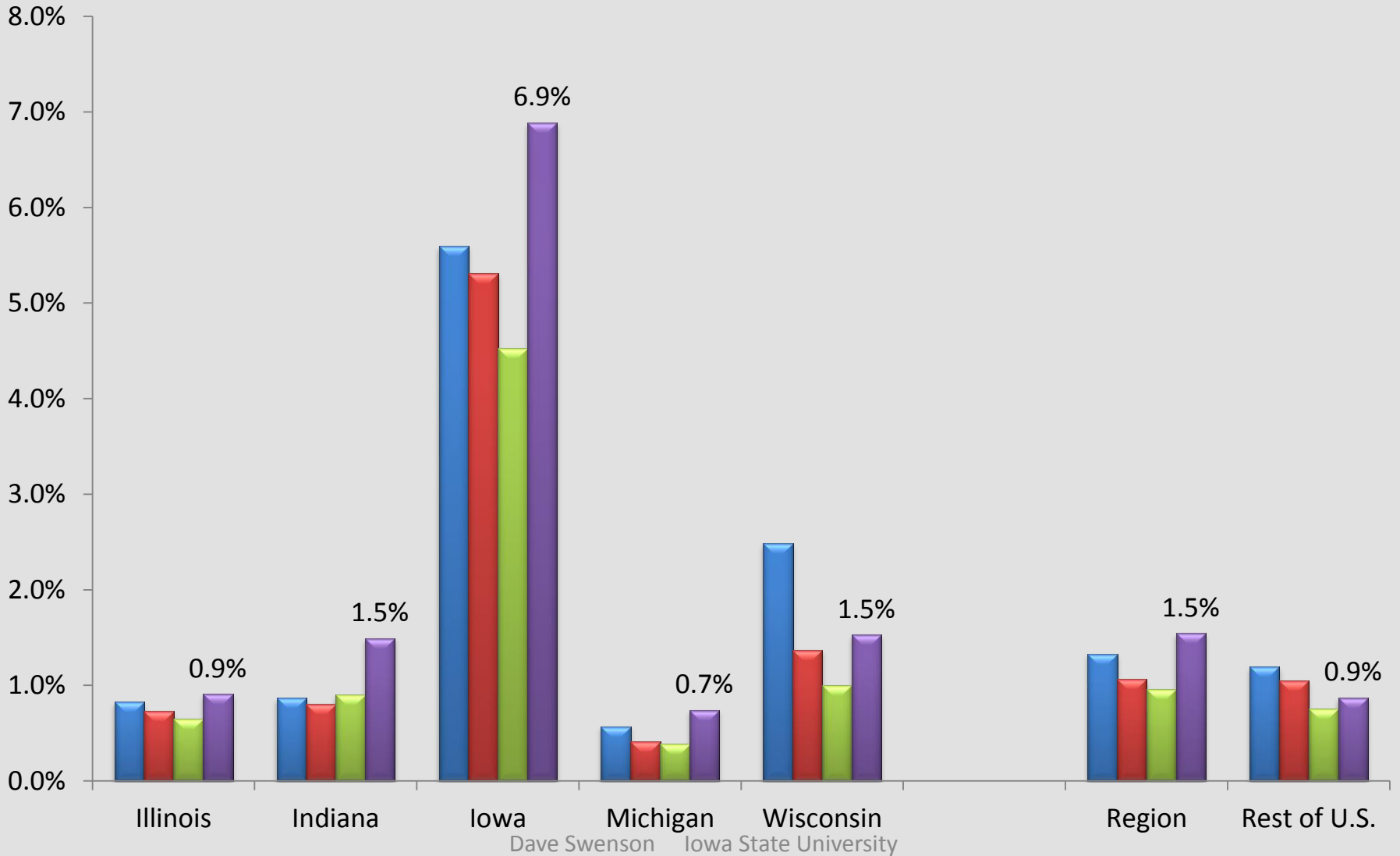
Rest of U.S. Region



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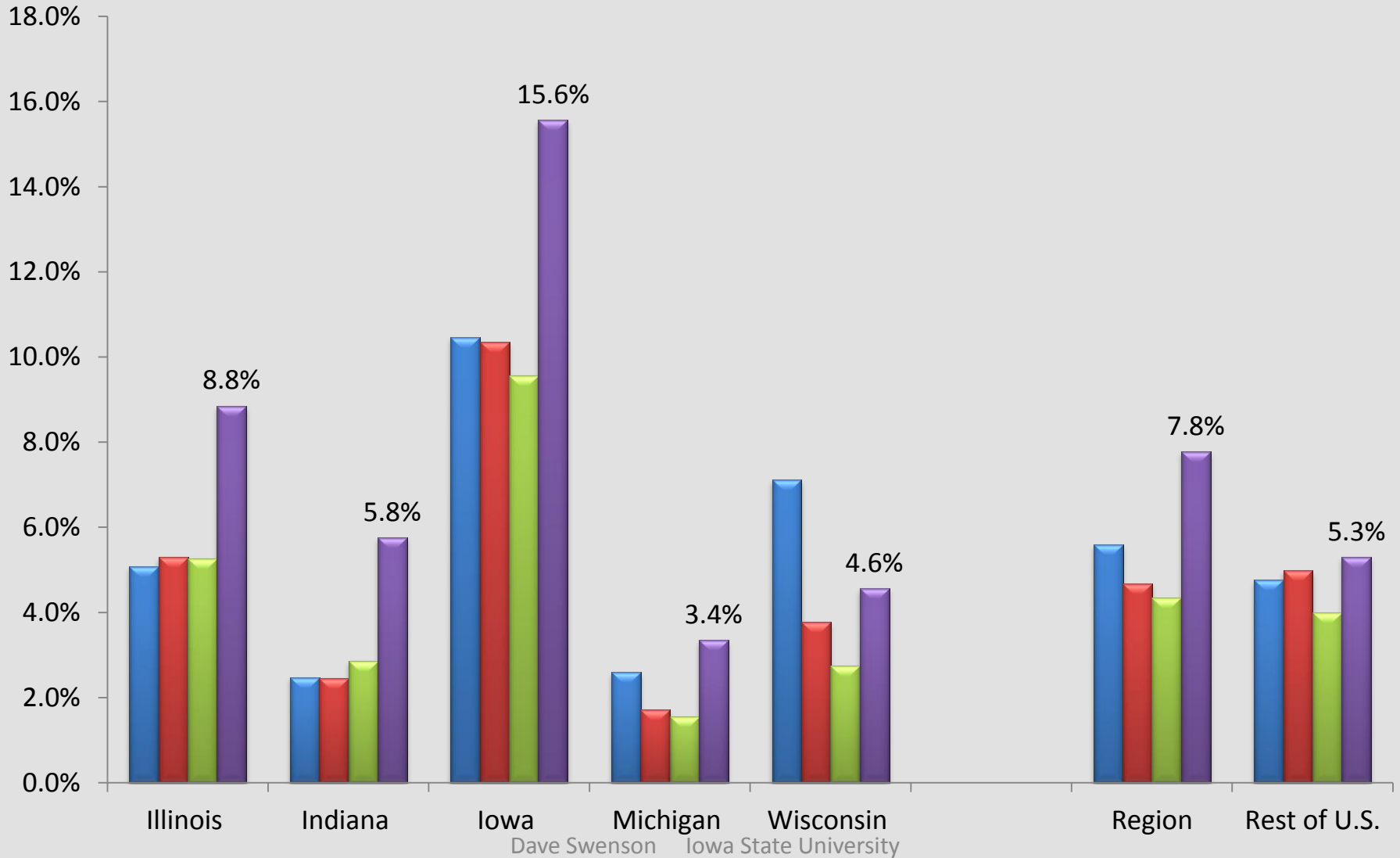
1980s 1990s 2000s 2010s





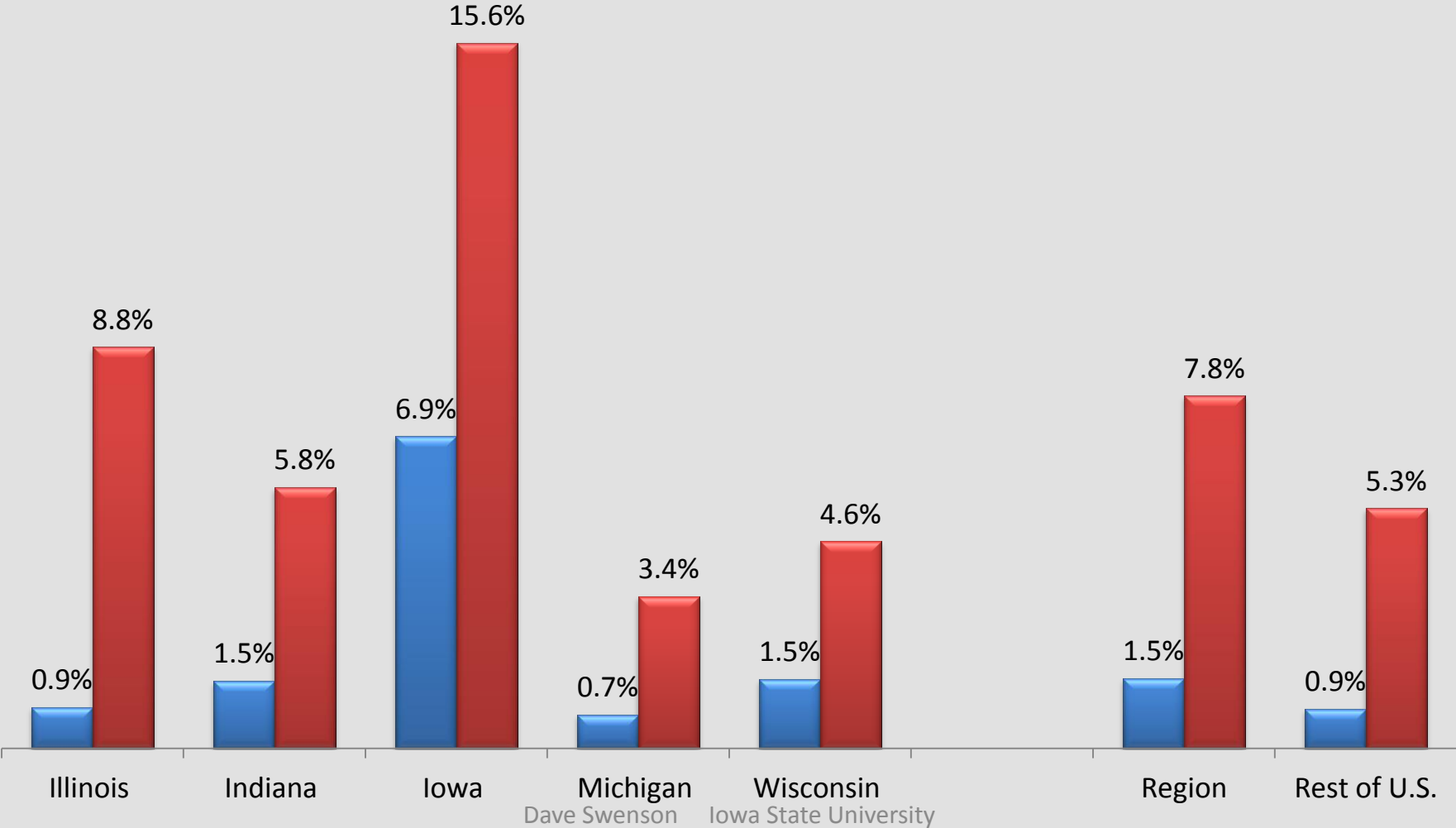
# NonMetropolitan Area Farm Earnings as Percentages of Total Earnings for Chicago Fed States and the Rest of the U.S.

■ 1980s ■ 1990s ■ 2000s ■ 2010s



# Statewide and NonMetropolitan Area Farm Earnings as Percentages of Total Earnings for Chicago Fed States and the Rest of the U.S.: 2010-2015

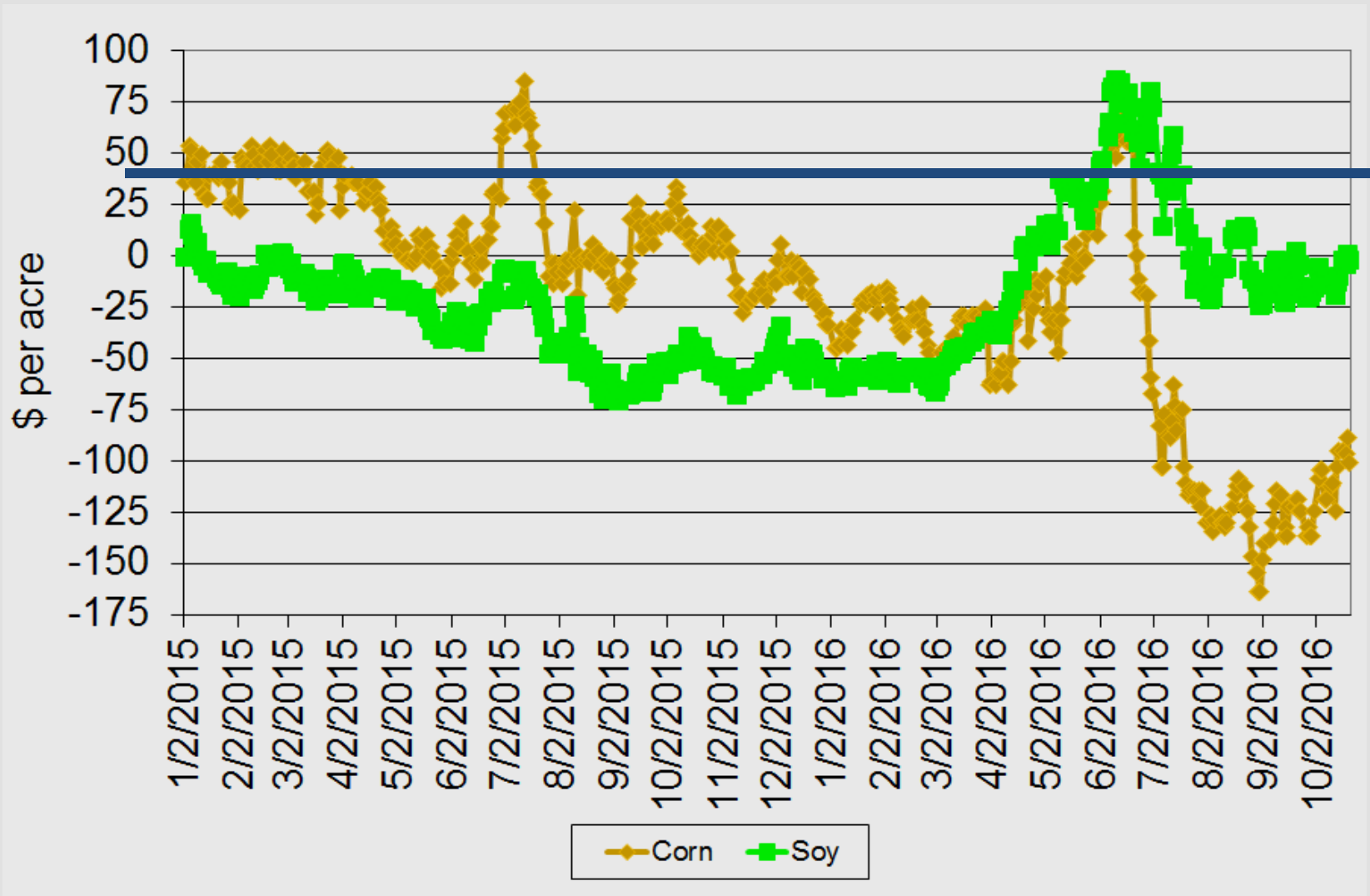
Statewide Nonmetro



# Current Stress

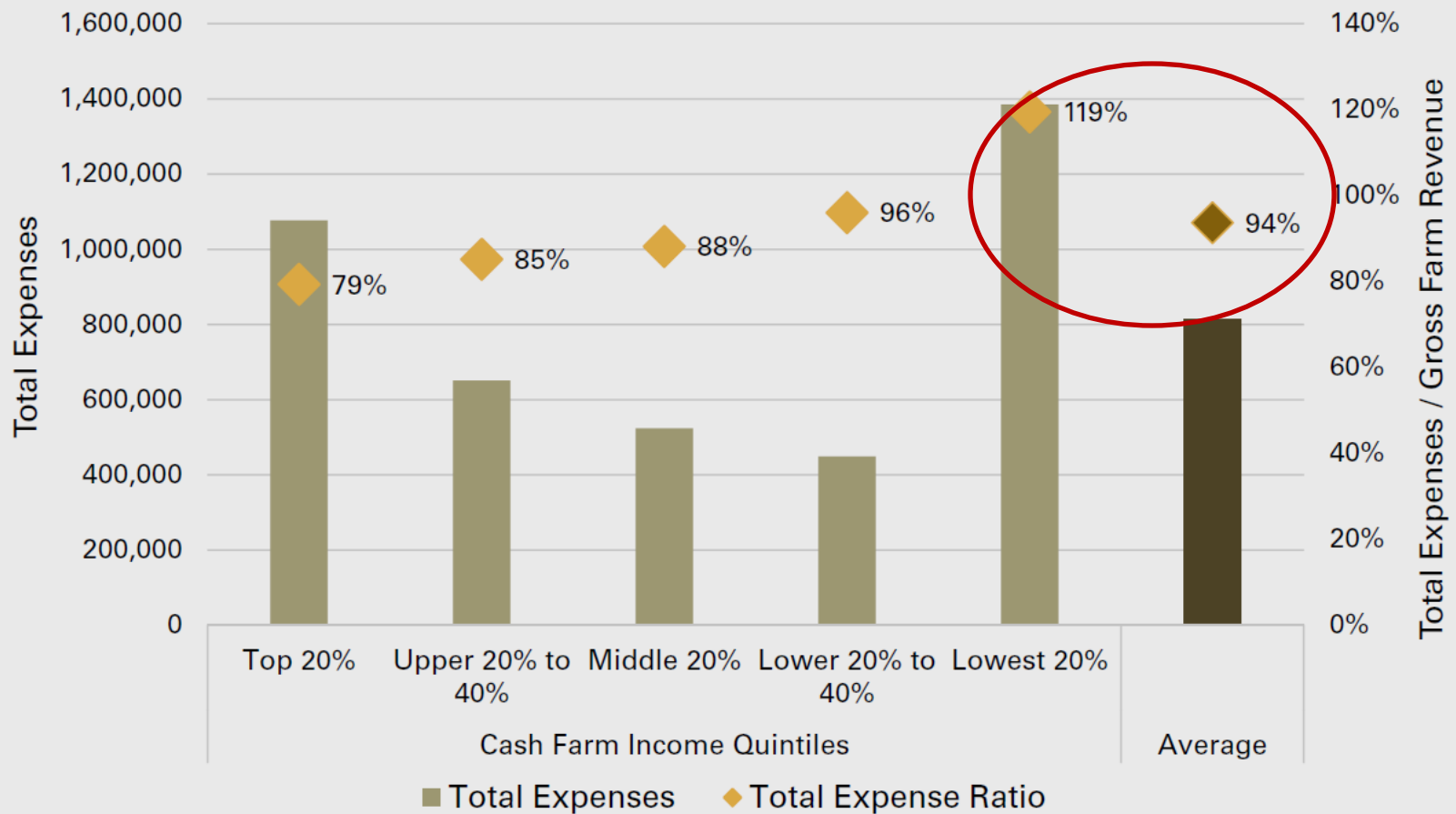
# Recent Crop Margin Estimates

(Via Chad Hart, Iowa State University)



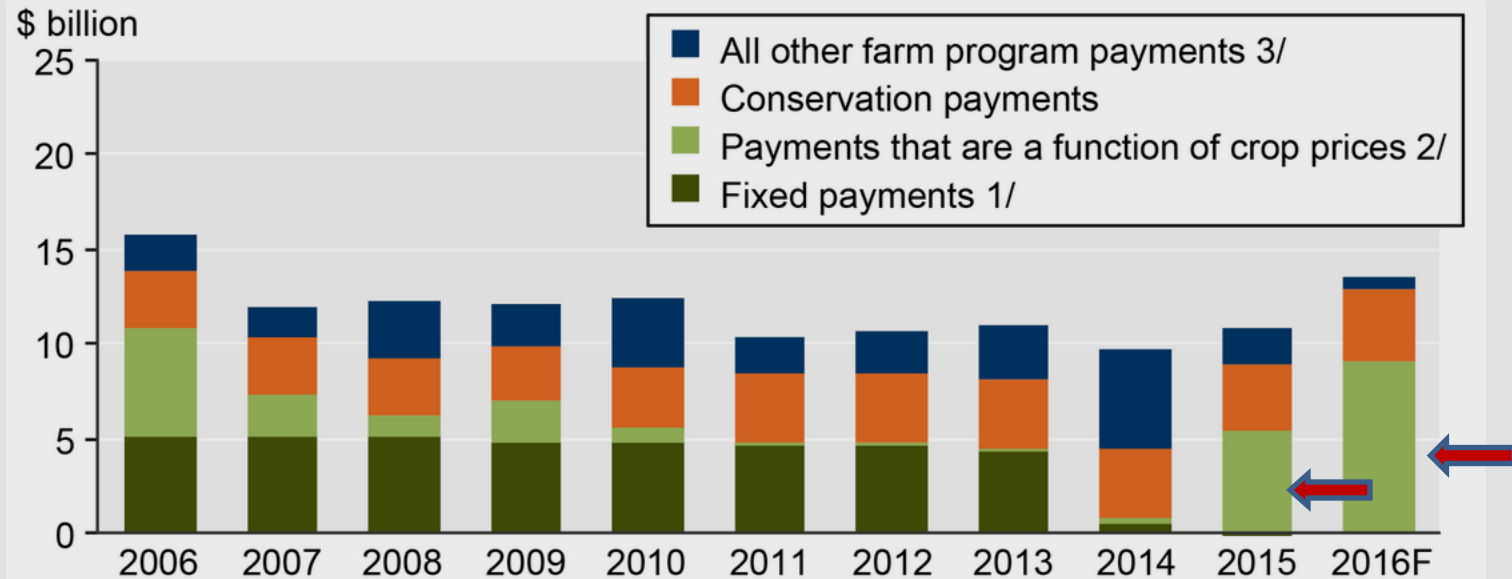
# Expenses to IA Gross Farm Income by Adjusted Farm Cash Income Quintile, 2015

Figure 4. Total expenses in dollars and as a percent of gross farm income, by AFCI Quintiles





## Government farm program payments to farm producers, 2006-2016F



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.

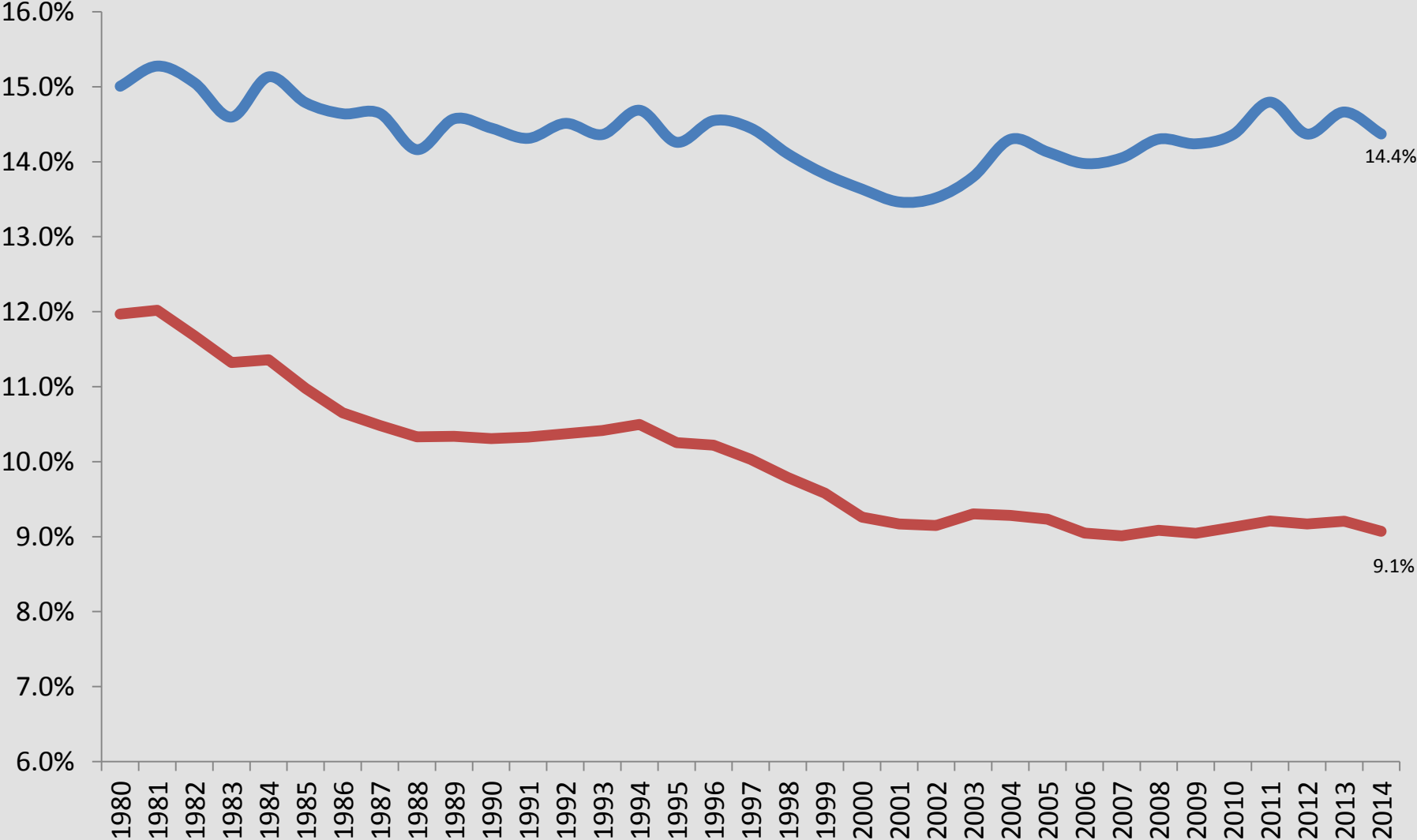
3/ All other payments include supplemental and ad hoc disaster assistance, tobacco transition, and dairy programs.

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

Data as of August 30, 2016.

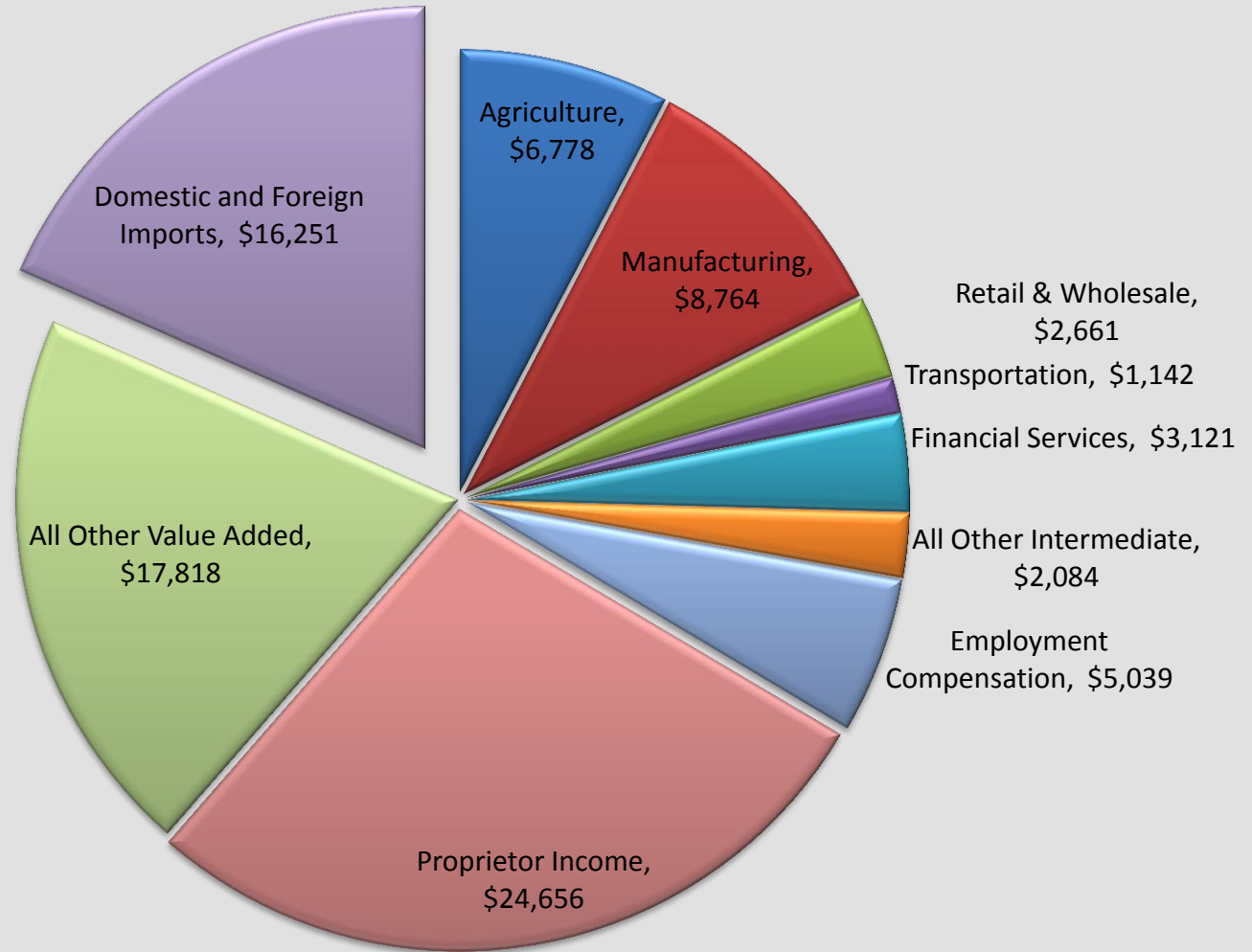
# Nonmetropolitan Earnings as Fractions of Total Earnings, Chicago Fed Region and the Rest of the U.S.

Rest of U.S. Region



**Ag-related  
Systems are  
Stable**

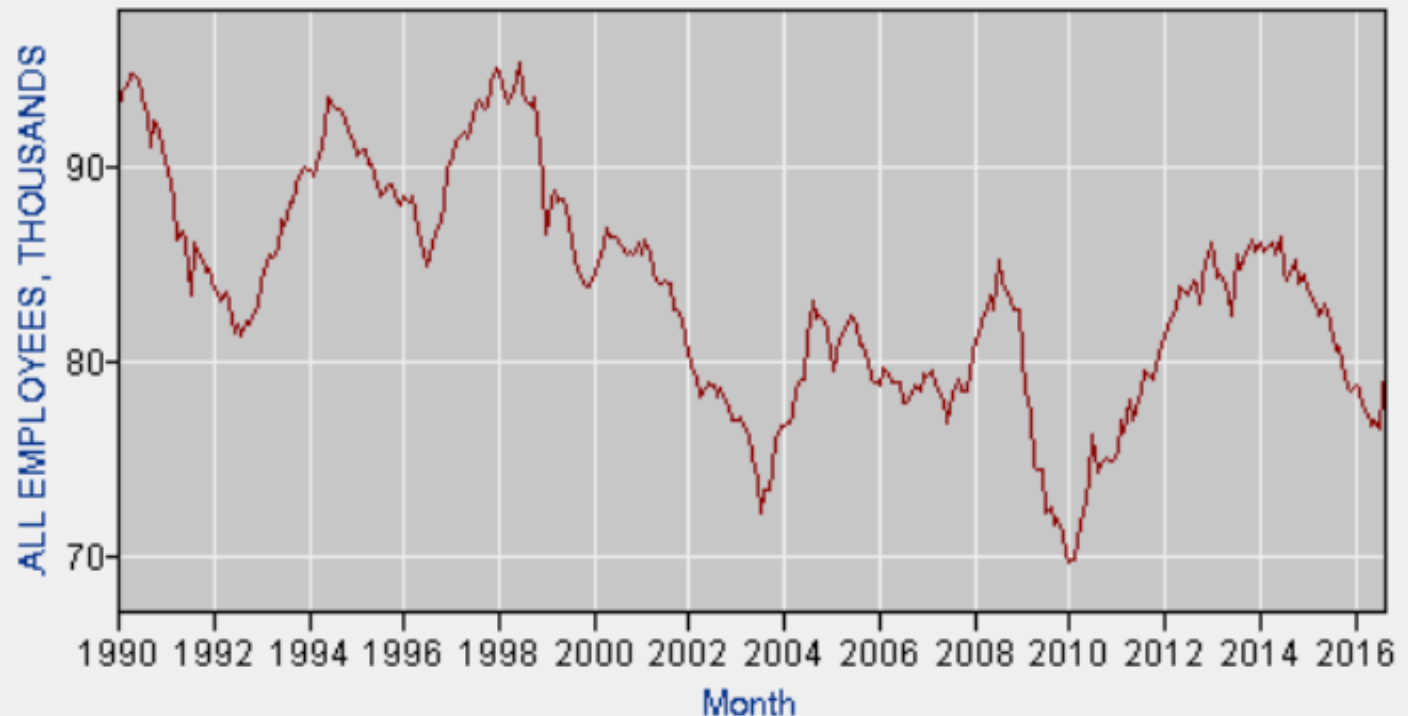
## Direct Requirements\* for Agriculture in Chicago Fed States (2014 Amounts in Millions)



\* Using IMPLAN-based direct requirements estimates for a five-state combined model

# We've had a bubble pop in the ag machinery sector

Industry: Agricultural implements  
NAICS Code: 33311  
Data Type: ALL EMPLOYEES, THOUSANDS



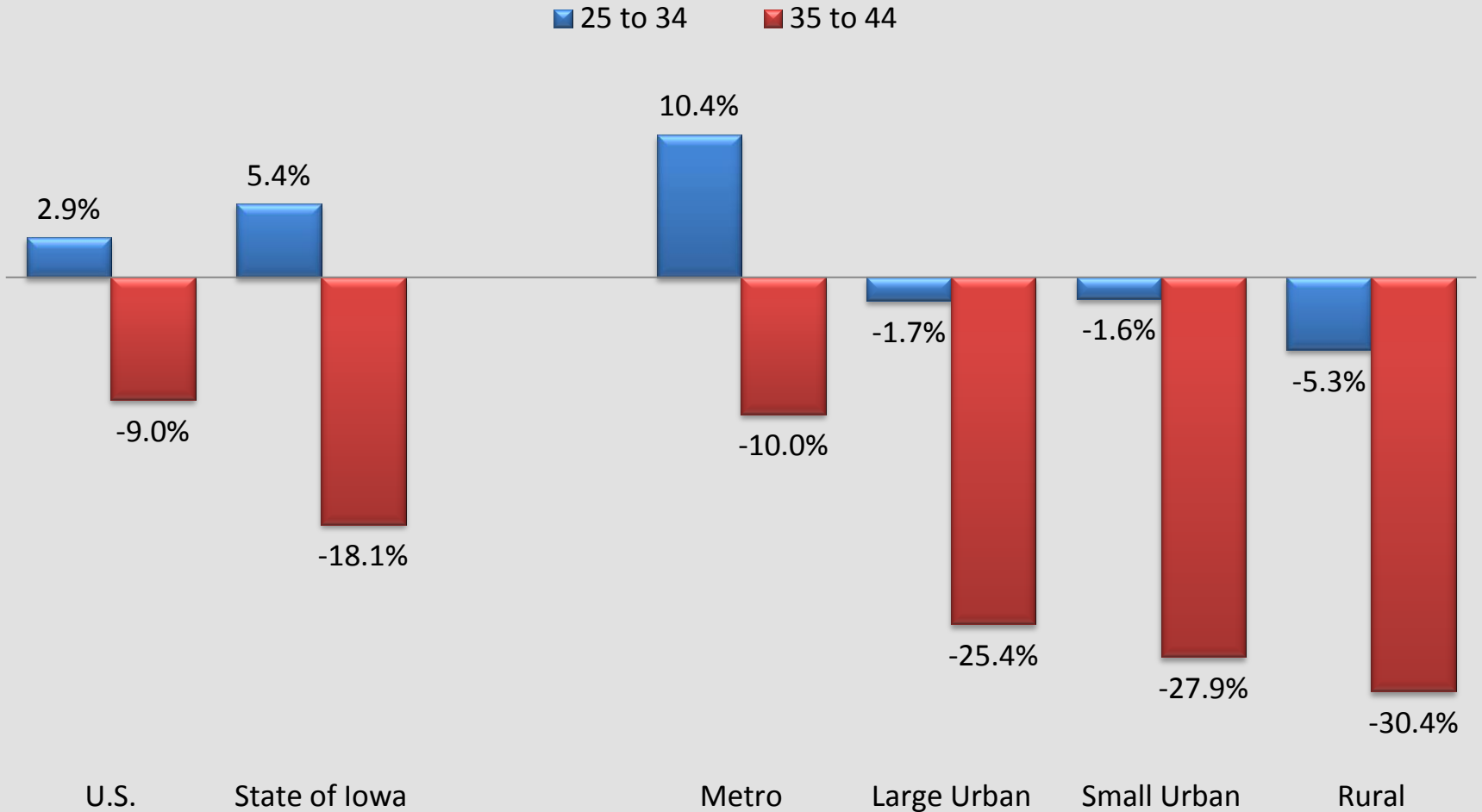


# Impact Analysis: Proprietor Spending Only

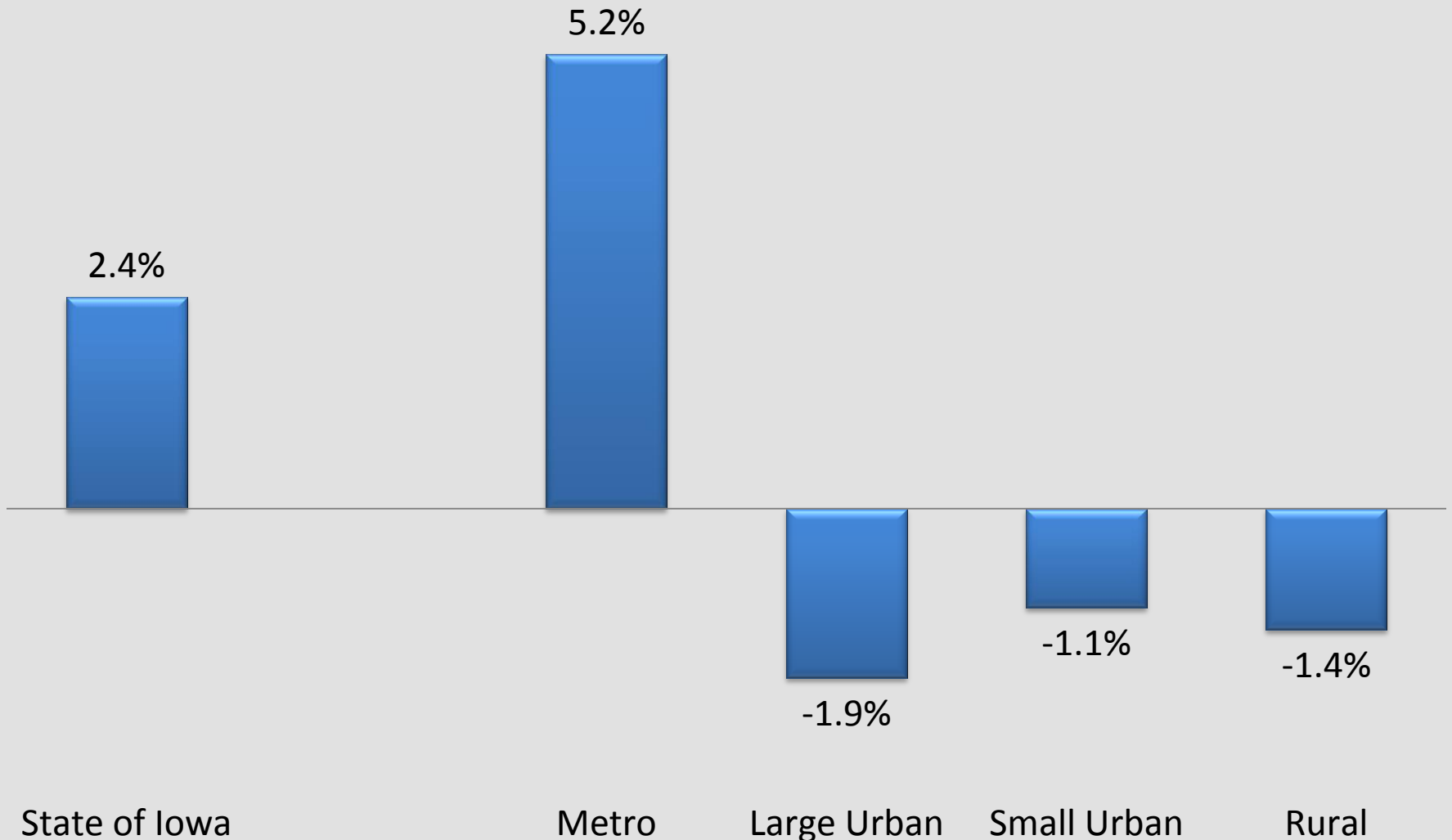
Per \$1 Billion in Reduced Spending of Proprietor Income in ...		
	The Five State Region	Iowa
Output (000)	\$ 1,069.62	\$ 727.33
Labor Income (000)	\$ 343.93	\$ 330.85
Value Added (000)	\$ 606.74	\$ 586.41
Jobs	7,575	5,918

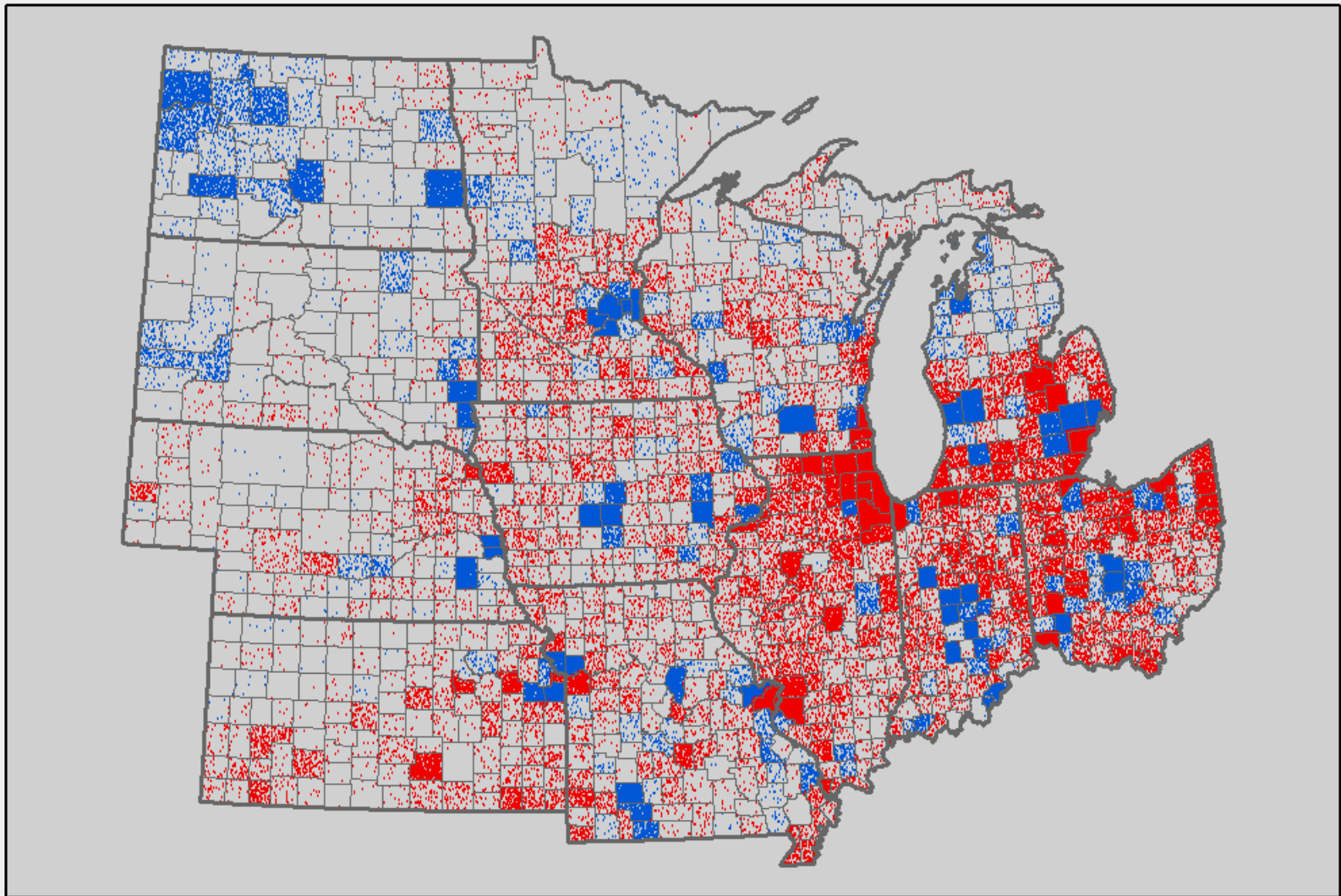
**Instability in Rural  
Areas Largely  
Unconnected to  
Current Ag Sector  
Stress**

## Percentage Change in Young Adults, 2000 to 2010, By Level of Urbanization



# Population Change in Iowa and Iowa Counties by Level of Urbanization, 2010 to 2015

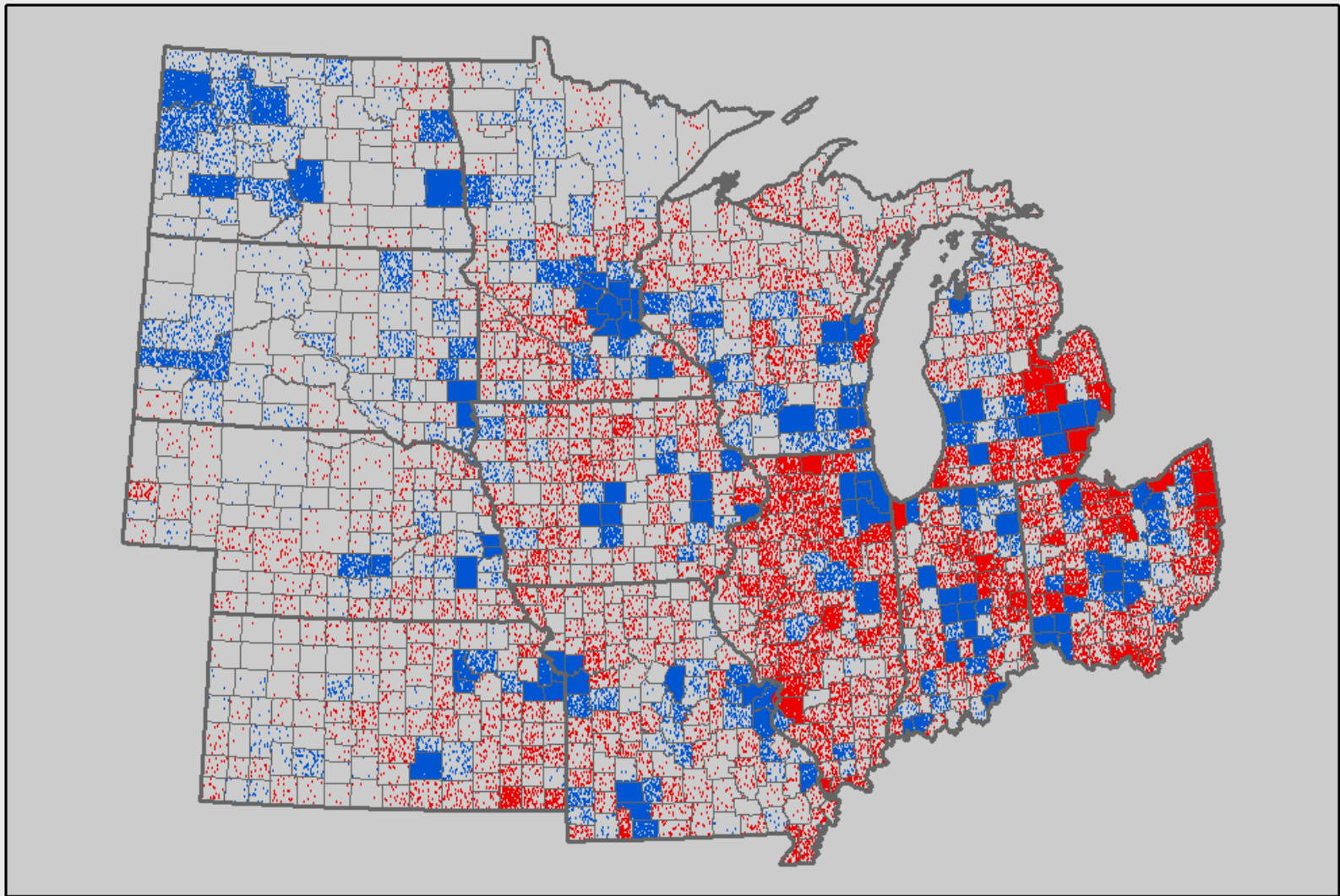




## Net Migration Change, 2010-15

Prepared by Liesl Eathington, Department of Economics, Iowa State University  
Source data: U.S. Census Bureau (March 2016)

- ◆ 1 Red Dot = Loss of 10
- ◆ 1 Blue Dot = Gain of 10



## Total Population Change, 2010-15

Prepared by Liesl Eathington, Department of Economics, Iowa State University  
Source data: U.S. Census Bureau (March 2016)

- ◆ 1 Red Dot = Loss of 10
- ◆ 1 Blue Dot = Gain of 10

**Thank You**

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