### U.S. Agricultural and Rural Outlook



May 8, 2018

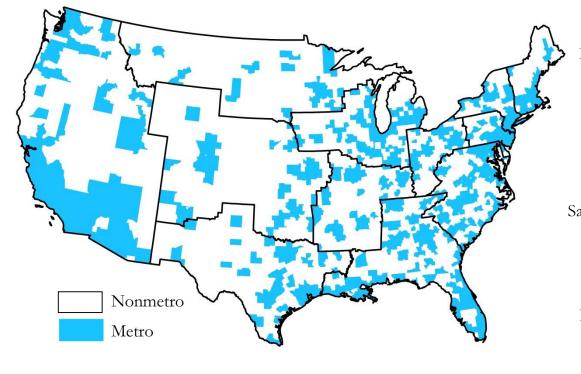
#### Nate Kauffman

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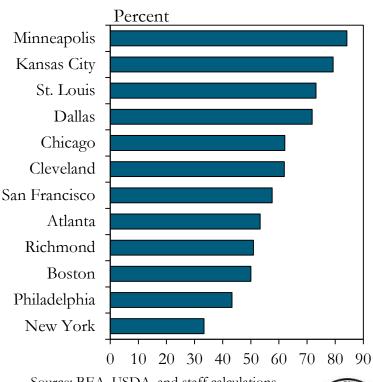
### The Kansas City Fed District is highly rural.

#### **Metro and Rural Counties**



Source: BEA and staff calculations.

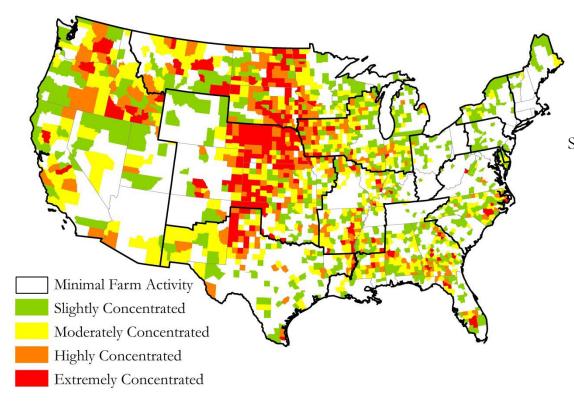
#### **Share of Counties** Classified as Rural



Source: BEA, USDA, and staff calculations

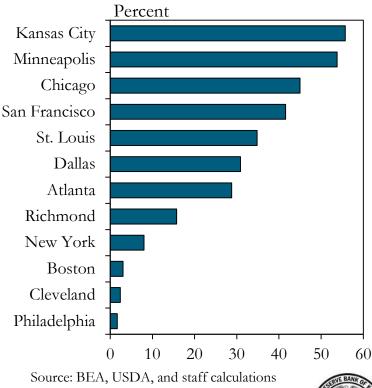
# Of the 12 Fed Districts, the KC District is also the most concentrated in agriculture by some measures.





Source: BEA and staff calculations.

### Share of Counties with Moderate Farm Concentration or Higher



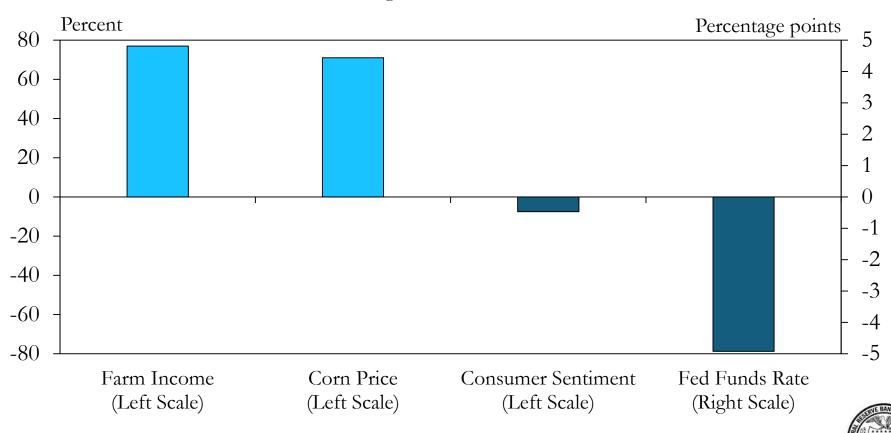
### Outlook Themes

- The U.S. economy has gained momentum in recent years, in contrast to the outlook for agriculture and the rural economy.
- The U.S. farm sector continues to adjust to lower commodity prices, which have also impacted rural areas.
- Unemployment is low in both rural and urban areas. In addition to lower commodity prices, though, rural areas also face ongoing demographic and workforce challenges.

# From 2007 to 2013, the ag economy outperformed the broader U.S. economy.

### Indicators for Ag Economy and Broader U.S. Economy

Change from 2007 to 2013

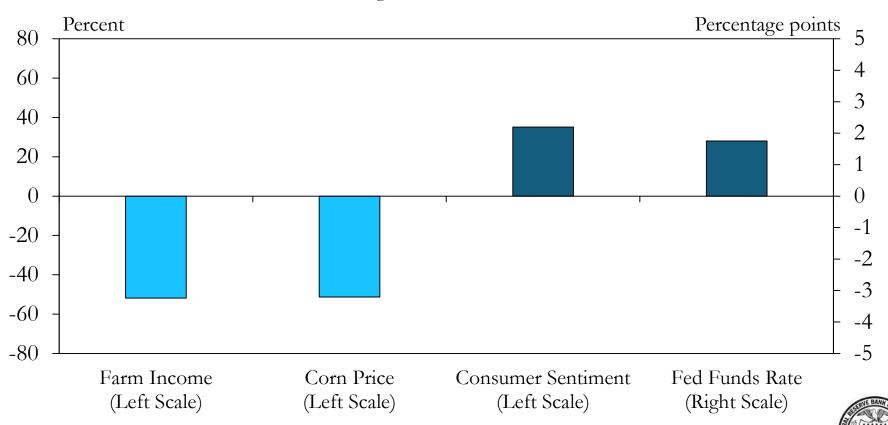


Source: USDA, University of Michigan, Federal Reserve Board, and Haver Analytics. FEDERAL RESERVE BANK OF KANSAS CITY

### Since 2013, the outlooks have reversed.

### Indicators for Ag Economy and Broader U.S. Economy

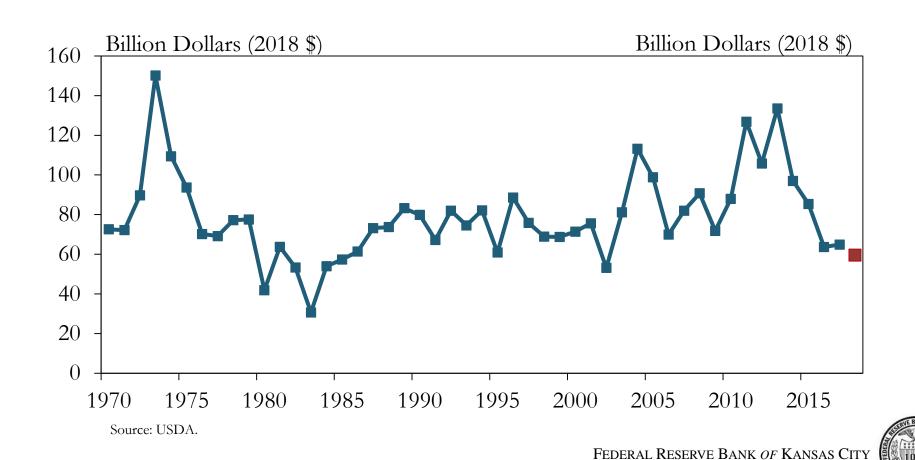
Change from 2013 - 2018



Source: USDA, University of Michigan, Federal Reserve Board, and Haver Analytics. FEDERAL RESERVE BANK OF KANSAS CITY

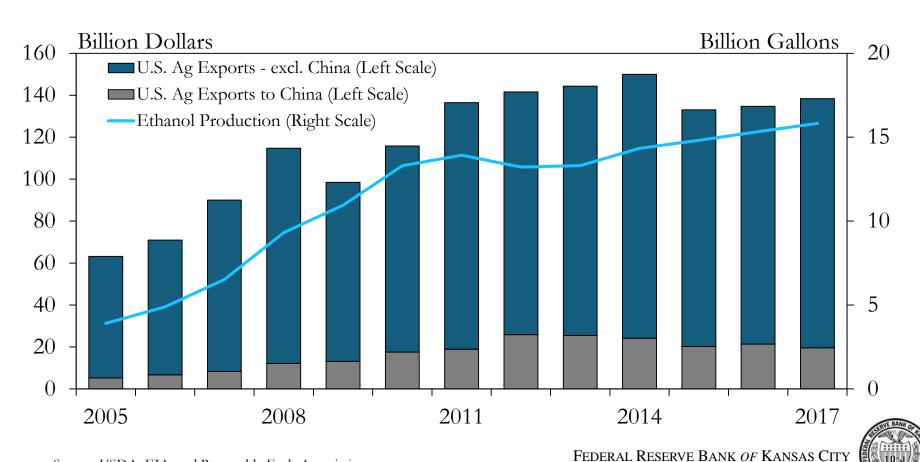
# Farm income has dropped from recent highs and is expected to decline again in 2018.

#### U.S. Farm Income



# Demand for agricultural products has been steady, and has even increased recently.

### U.S. Agricultural Exports and Ethanol Production

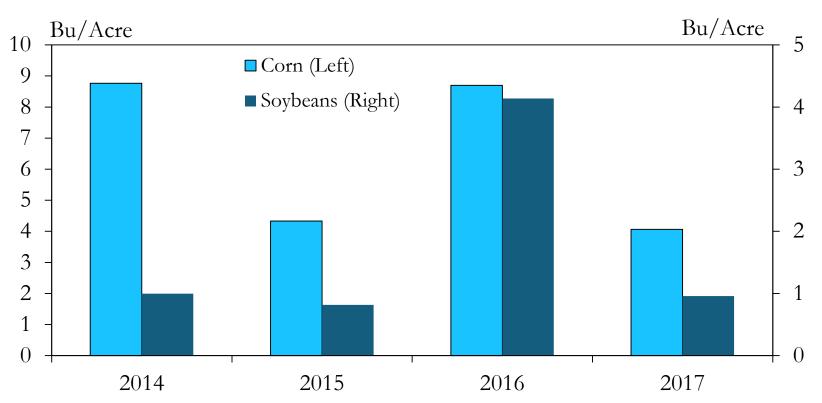


Source: USDA, EIA, and Renewable Fuels Association.

# But production of major ag commodities has been significantly higher than expected the last few years.

U.S. Corn and Soybean Yields

Deviation from Trend

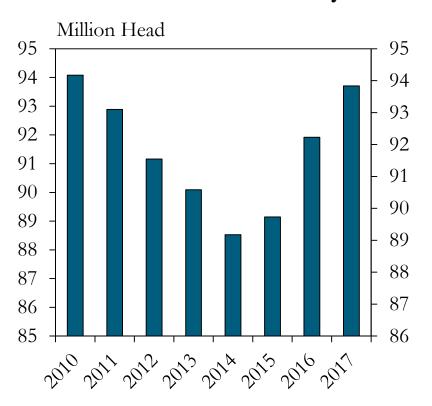


Source: USDA and staff calculations.

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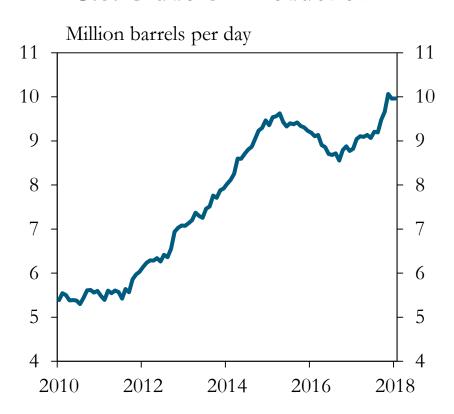
# U.S. production of commodities especially relevant in Wyoming has also increased.

U.S. Cattle Inventory



Source: USDA.

U.S. Crude Oil Production

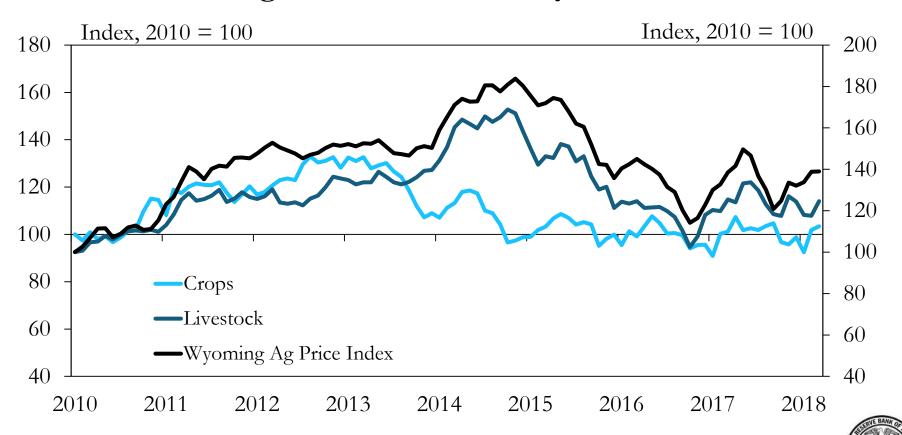


Source: Energy Information Administration.

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As a result, agricultural commodity prices generally remain low and are a primary concern for the sector.

### **Agricultural Commodity Prices**

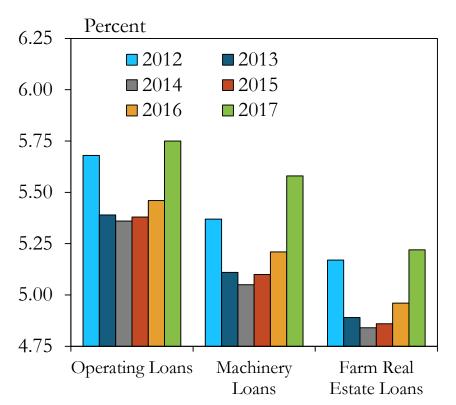


Source: USDA and staff calculations.

# Rising interest rates are an additional headwind for some producers.

#### Variable Interest Rates

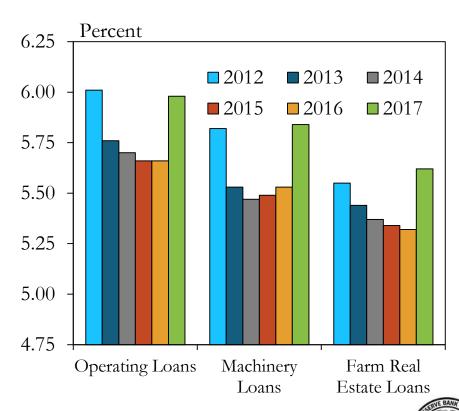
KC Fed District



Source: Federal Reserve Bank of Kansas City.

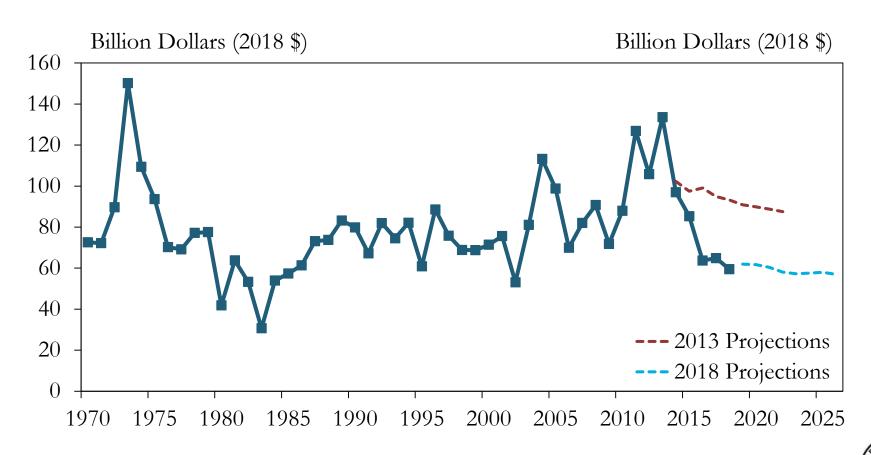
#### **Fixed Interest Rates**

KC Fed District



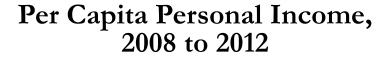
# Farm income is projected to remain low in the coming years.

#### U.S. Farm Income

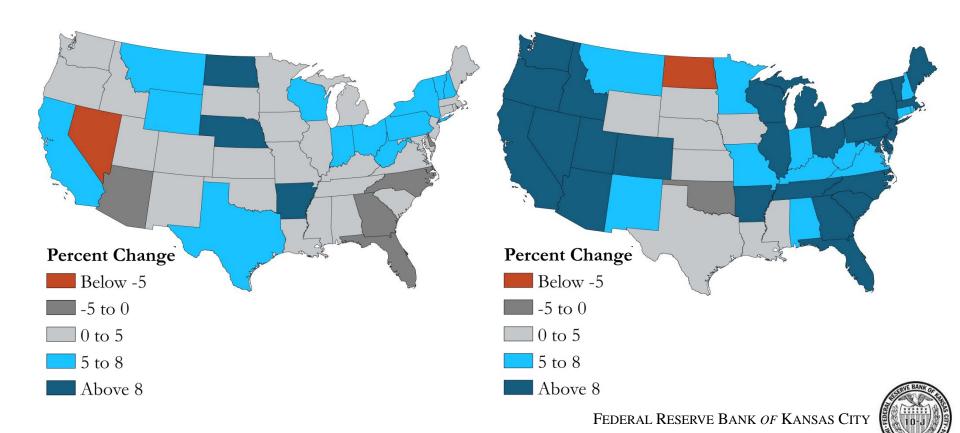


Source: USDA.

### Changes in commodity prices have been a significant driver of incomes in rural areas.

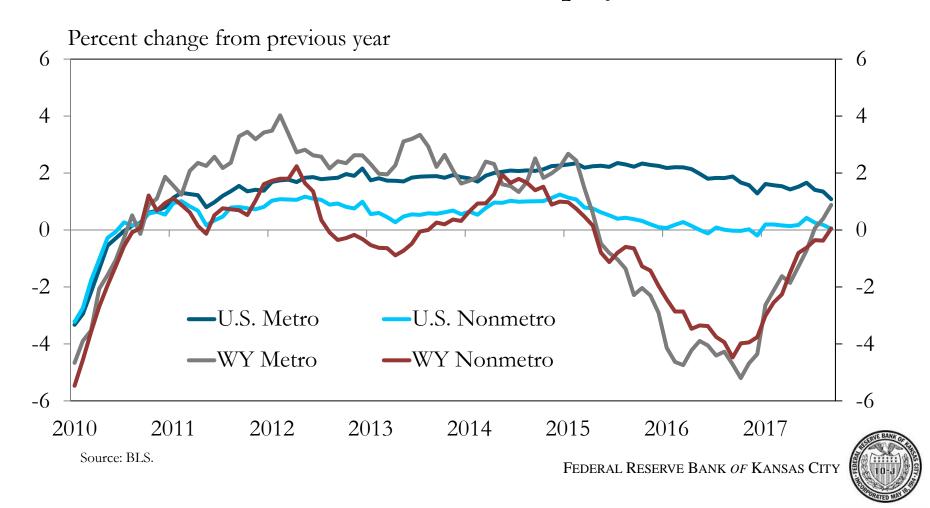


### Per Capita Personal Income, 2013 to 2017



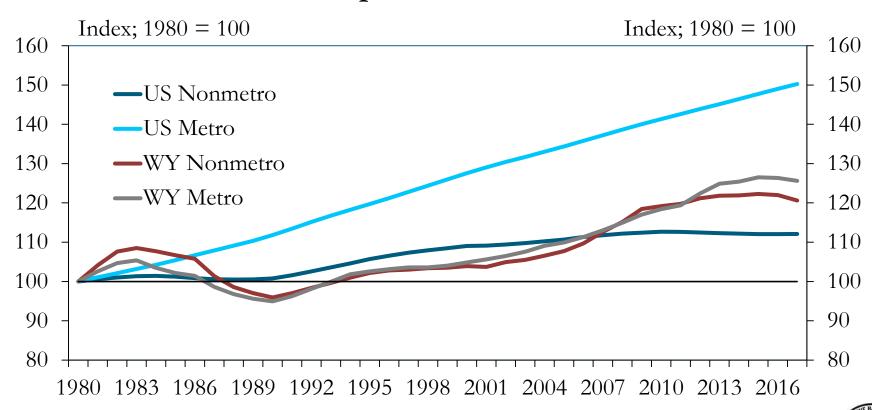
### Over the past few years, employment growth in rural areas has been sluggish.

### Metro and Nonmetro Employment



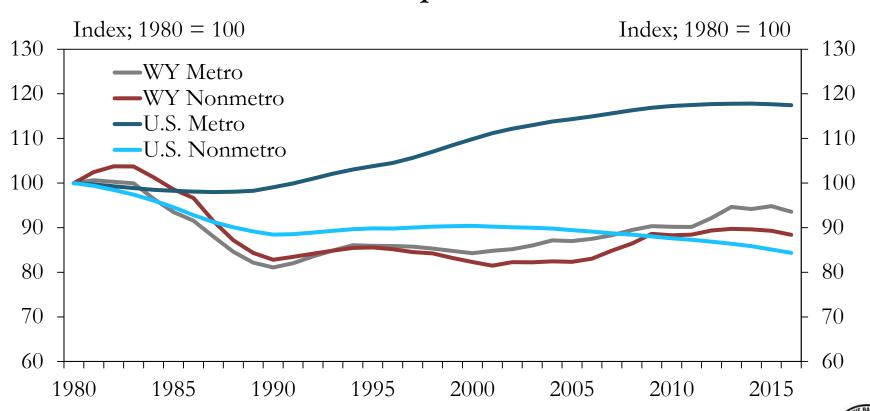
# A significant part of the economic challenges in rural areas is workforce availability.

### **Population Trends**



### The number of youth living in rural areas has diminished relative to urban locations.

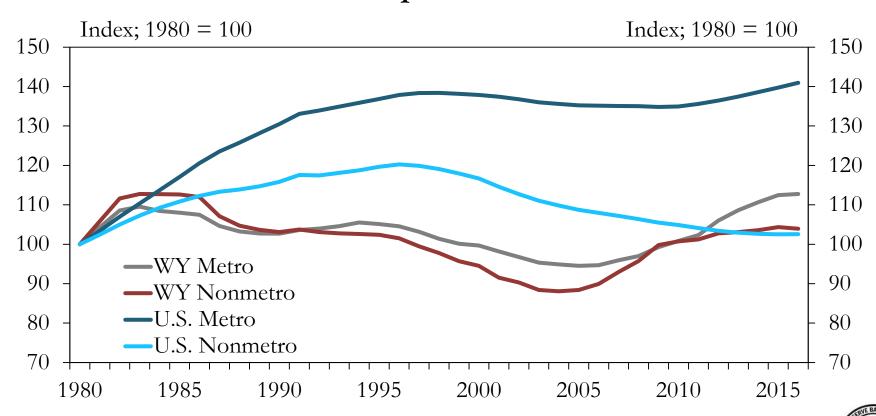
#### **Under 25 Population Trends**



Source: Census Bureau, Haver Analytics.

# Young to mid-career individuals have also continued to take up residence in metropolitan areas.

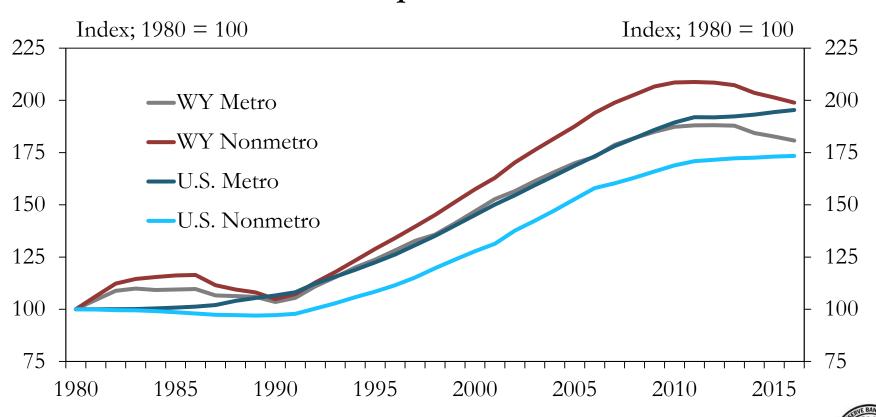
#### 25-44 Population Trends



Source: Census Bureau, Haver Analytics.

### Meanwhile, the workforce in rural areas is ageing.

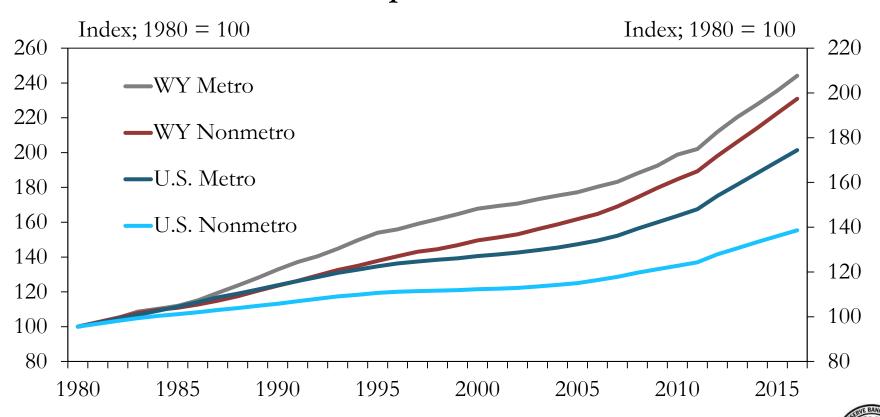
#### **45-64 Population Trends**



Source: Census Bureau, Haver Analytics.

# And the strongest population growth in rural areas is at retirement age.

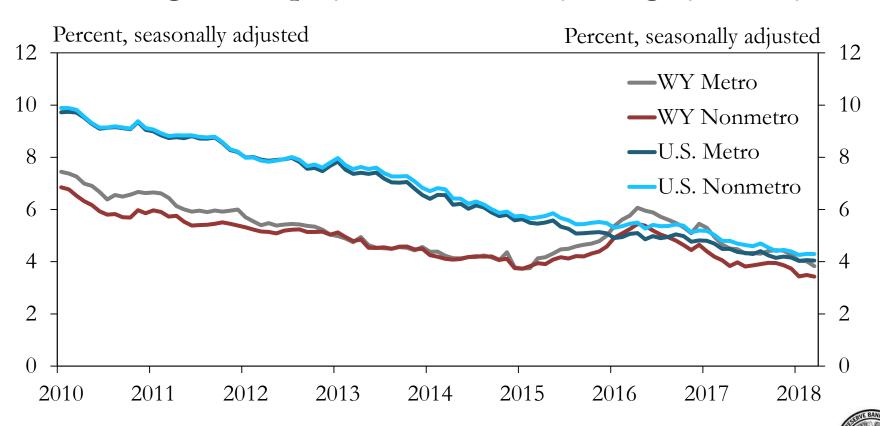
#### 65+ Population Trends



Source: Census Bureau, Haver Analytics.

# Along with job growth, demographics are an important component to labor market tightness.

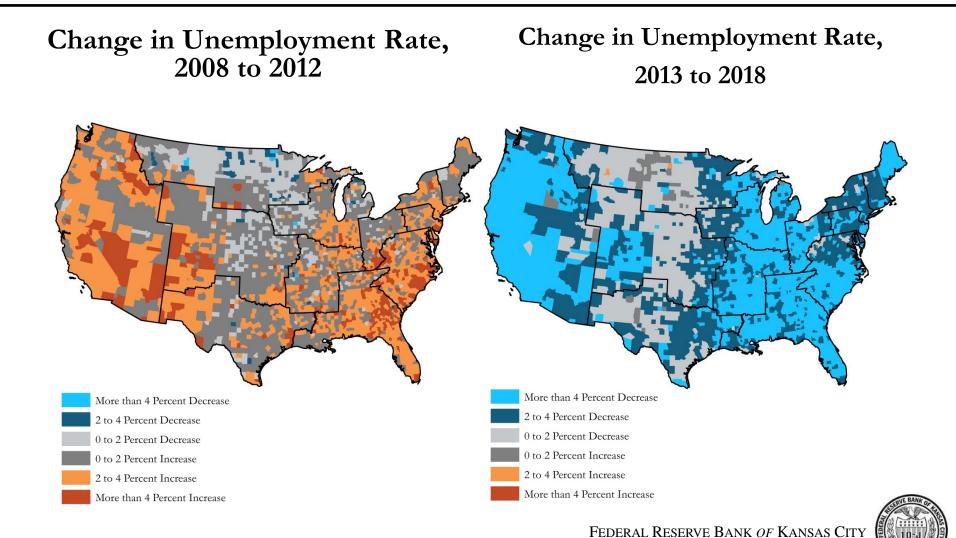
### Average Unemployment Rate in Wyoming by County



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Source: BLS, Haver Analytics.

# It is also important to note significant regional variation during national recessions and expansions.



### Concluding Remarks

- Following a period of extraordinary profits, the U.S. agricultural economy has been in a prolonged downturn that has affected the outlook for rural communities in the region.
- Some rural challenges, connected to commodity markets and their cycles, are not new.
- Increasingly, though, a challenge for rural areas of the KC Fed District is population decline and workforce availability.

### Questions?

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