



**Human Capital Investment
in Rural America –
a part of the
“Public and Private Investment
in Infrastructure” discussion?**



Roundtable Discussion
Bettendorf, Iowa
June 7, 2018

www.openprairie.com

The Hill– December 5, 2017



THE HILL

← STATE WATCH

December 05, 2017 - 05:29 PM EST

Rural poverty skyrockets as jobs move away



BY REID WILSON

1,471 SHARES

 OPENPRAIRIE

Wall Street Journal – February 25, 2018

COMMODITIES

To Stay on the Land, American Farmers Add Extra Jobs

A drop in agricultural income means side work in rural manufacturing and businesses takes on greater importance in funding food production



Craig Myhre used a skid loader to move feed for his cattle on his farm near Osseo, Wis., this month. He works several

Venture Beat –September 22, 2017

VB



HEARTLAND TECH

GUEST

Rural America needs partners, not pity

BRENT COMSTOCK, RURAL IMPACT HUB

@BRENTCOMSTOCK SEPTEMBER 22, 2017 9:40 AM



Image Credit: Shutterstock

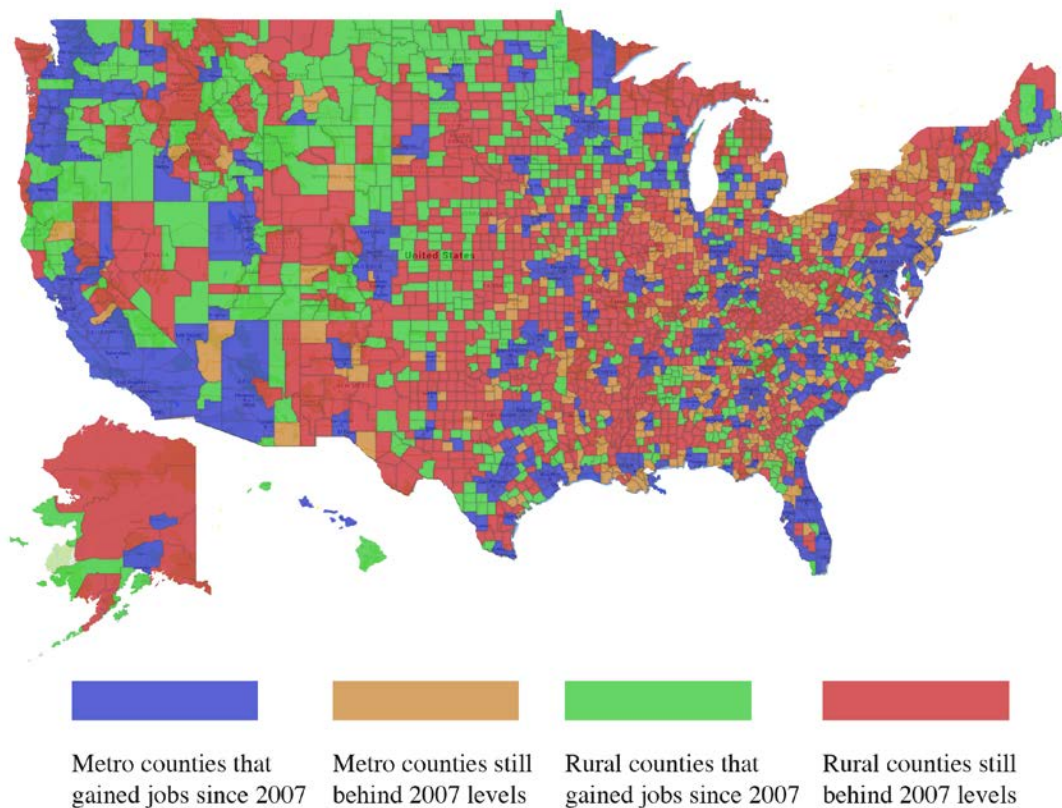
Rural America...our challenges

Rural America...our challenges

- Employment opportunities limited
- Ag Economy recession
- Global economy – NAFTA, TPP. Better trade deals are imperative!
- Broadband Access - limitations
- Infrastructure crumbling
- Opiate Crisis

Rural America challenge...underinvested and falling behind and, thus, providing fewer job opportunities

Job Growth 2007 - 2017



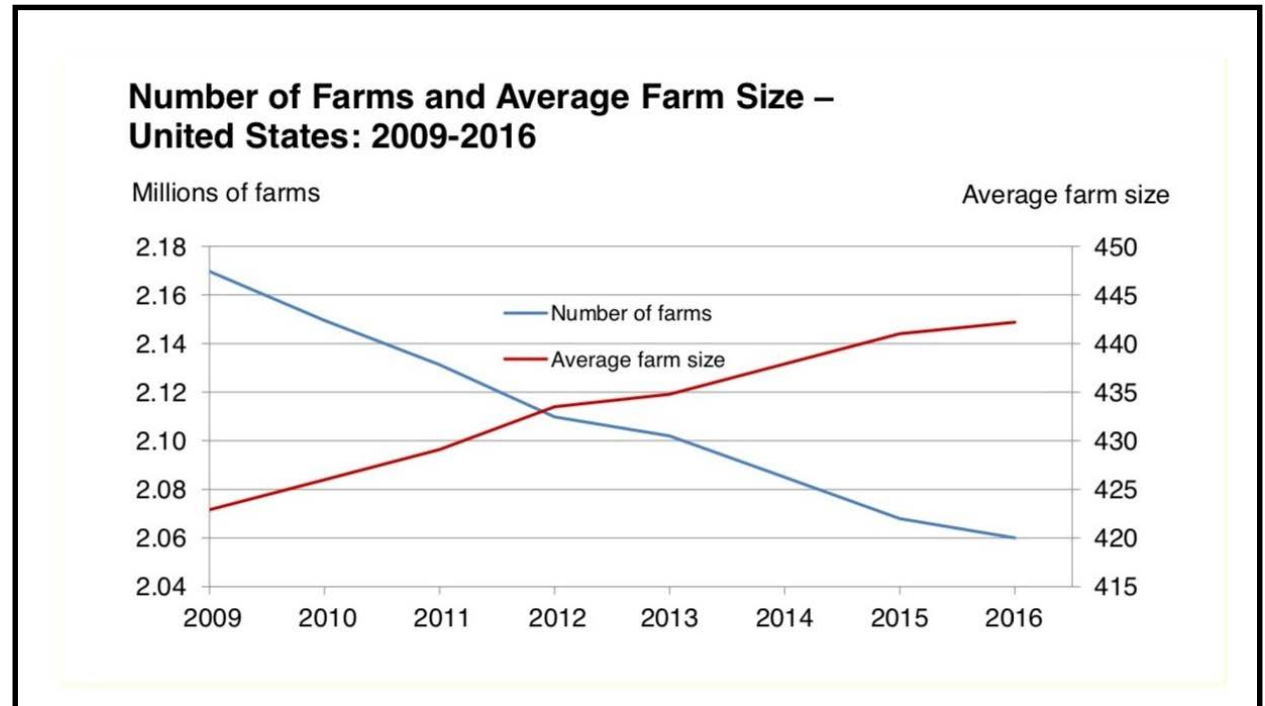
Over 2/3rds of rural counties have fewer jobs than in 2007

Source: *DailyYonder.com*



Rural America challenge...production ag in Ag 4.0 revolution resulting in disruption and disintermediation

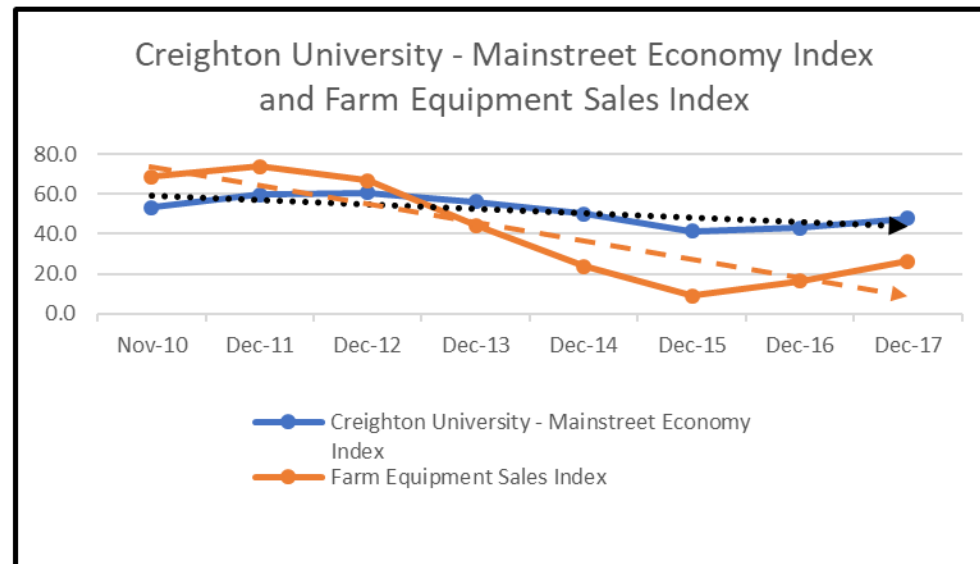
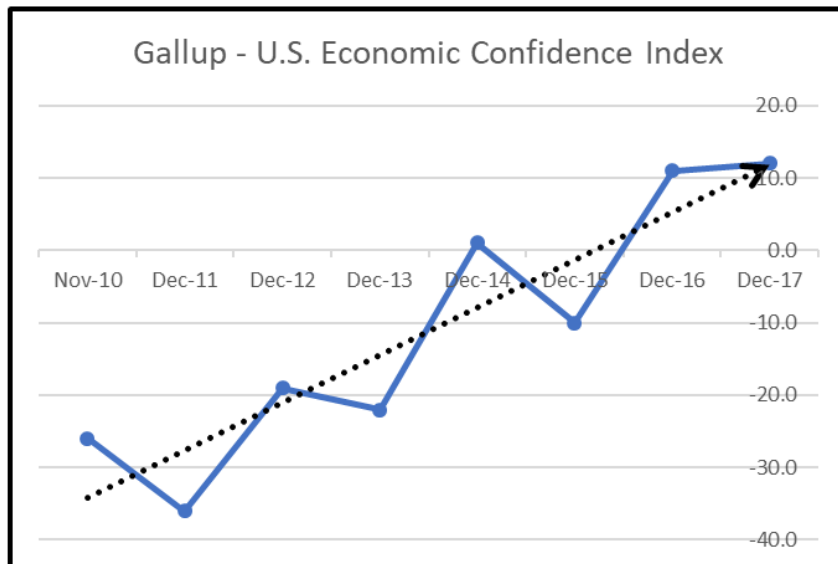
- ❑ Three-quarters of America's farmed cropland is controlled by 12% of farms.
- ❑ High-tech equipment, technology advancements, seeds and pesticides reduce labor, increasing returns to scale.



Source: USDA Farms and Land in Farms 2016 Summary (February 2017)

Rural America Challenge - US Agriculture...continued

- ❑ While the US Economy has shown strong signs of improvement, the Rural Economy continues to lag and farm metrics remain on downward slope.
- ❑ US Grain Exports continue to fall behind supply opportunities
- ❑ Production Ag suffers 4th consecutive year of low commodity prices



Rural America...our opportunities

Rural America today...our opportunities

- Ag production...feeding the world
- Panama Canal Expansion – link to the “*New Freight Superhighway/Gateway*”
- Digital and Data – need for workforce and industry-expertise focus
 - Broadband – e.g. FarmBeats & Federal Initiatives
- Entrepreneurship

Innovation in the history of agriculture – what next?

Motorized Tractors &
Chemical Fertilizers



Hybrid
Seeds



Plant Protection
Chemicals



GMO &
Biotech Crops



Biologicals &
Precision Ag



Horse & Plow



Early
1800's

Early
1900's

Mid
1900's

1960-
1970's

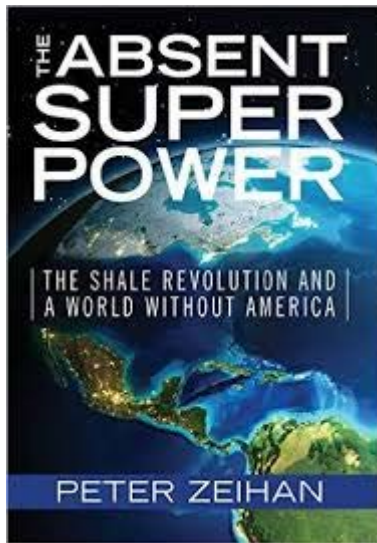
1990 –
2000's

Today

Future

- ✓ **In 1930**, one farmer produced enough to **feed 5 people**, **today** one farmer **feeds 155 people**
- ✓ Today there are approximately **915 million acres** in the US farmed by **3.2 million farmers**
- ✓ **Corn yields** have **increased by 300%** and **soybean yields by 200%** since 1950

Geopolitical Expert and Futurist Peter Zeihan



Amber Waves of (American) Grain: The Future of Global Agriculture

Modern agricultural patterns are the result of three largely unrelated factors: low-risk global trade, insatiable Asian demand, and unlimited cheap credit. Within the next five years, all three of these trends will not just evaporate, but invert. When that happens, the only thing that will hurt more than the gradual loss of demand will be the sudden collapse of supply. However, none of this impacts the American producer – it therefore will be the United States that will reap the benefits of its productivity and stability for decades to come.

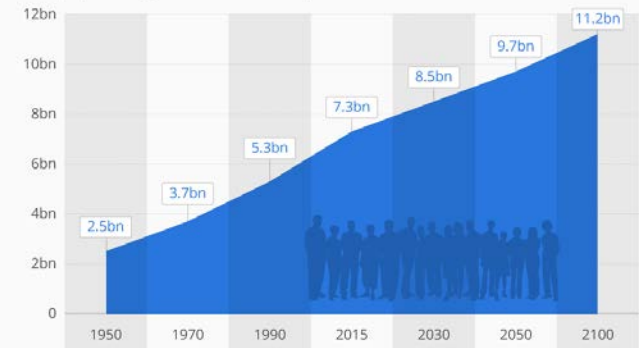
Our opportunity...an increasing global population



Grocery bill for family of 4 in Mongolia
~\$40/week

The World's Population Is Set To Reach 11 Billion By 2100

Global population growth with forecast up to 2100



Source: United Nations

Forbes statista



Grocery bill for family of 4 in Germany
~\$500/week

Globalization and development of emerging markets results in a burgeoning middle class with disposable income, an expansive palate and greater focus on food safety, health and convenience

- ✓ Caloric demand **increases of 70% by 2050**
- ✓ Crop demand requirements result in **expected growth of more than 100%**
- ✓ Developing countries in Asia anticipated to **account for 64% of global middle class by 2030**
- ✓ Asian economies to **represent 40% of global middle-class consumption by 2030**

Our opportunity...the US leads in agriculture production with strong geopolitical/environmental benefits

United States



- ✓ #1 in corn, soybeans, milk, chicken and beef
- ✓ Top 5 in wheat and pork



- ✓ Top 5 in wheat and chicken
- ✓ Top 10 in milk and beef

China



- ✓ Top 3 in corn, wheat, rice, milk, pork, chicken and beef
- ✓ Top 5 in soybeans

Brazil



- ✓ Top 3 in corn, soybeans, chicken and beef
- ✓ Top 10 in pig, milk and rice

India



- ✓ Top 3 in wheat, rice and milk
- ✓ Top 5 in corn, soybeans and beef

Our opportunity...other food observations/trends

- Asia's Future will drive US Growth in agriculture
 - Asia Middle Class - Developing countries anticipated to account for 64% of global middle class by 2030
 - By 2050, 50% of world population will live in Asia-Pacific region
 - China – losing 0.5% of land to production annually
- Grain & Protein Production – “Rule 70-32”

Our opportunity...global food production

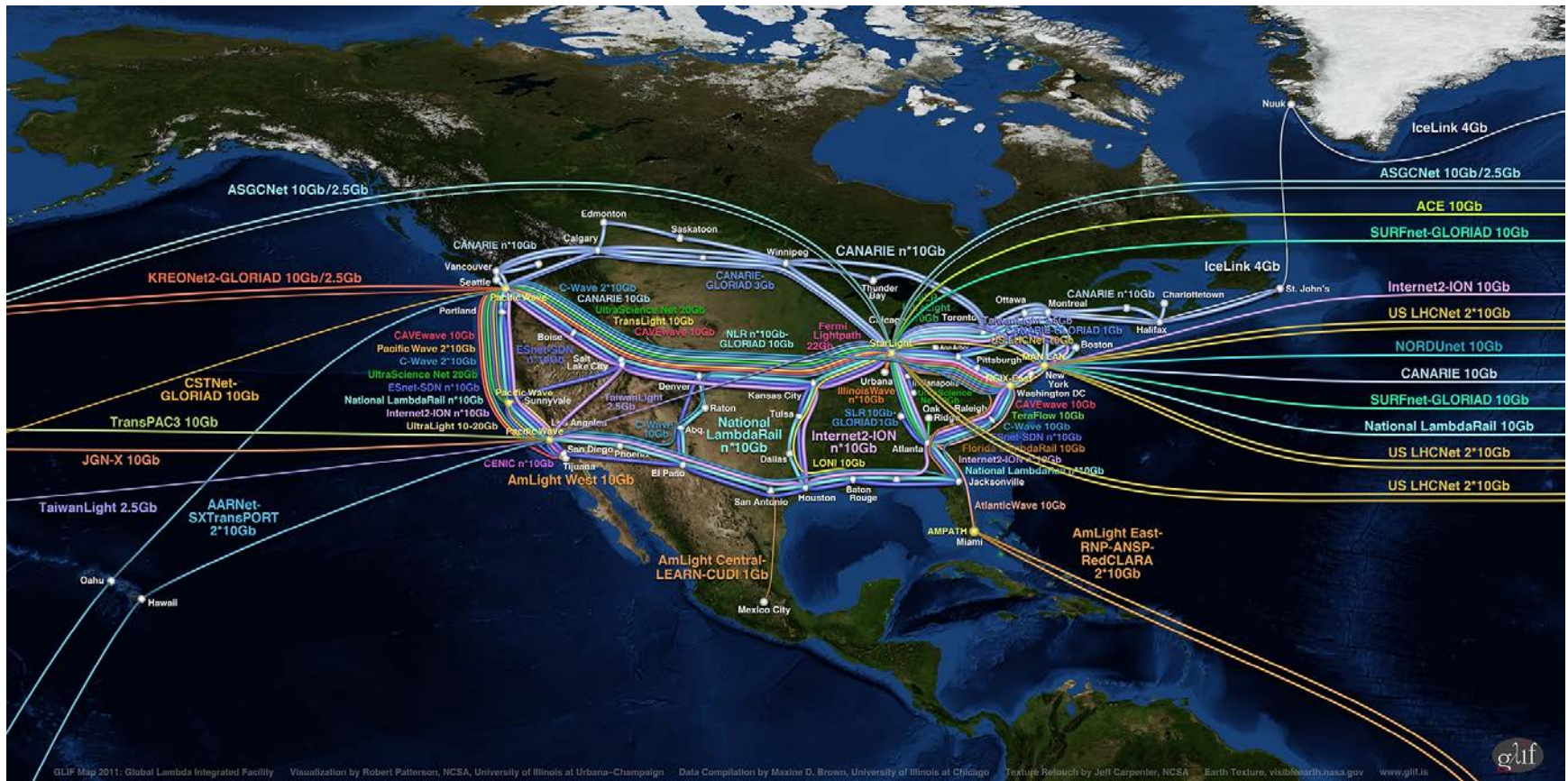


Our opportunity...Panama Canal expansion: the new “freight super highway/gateway” for the Midwest and the East coast

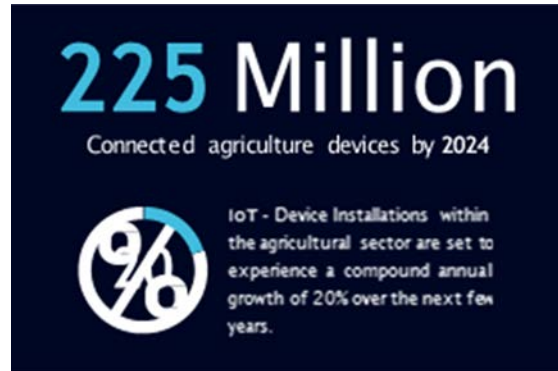


Containerized barges will result in transportation optimization on the inner waterways.

Our opportunity...Data Transmission



Our Opportunity...IoT Growth



IoT device installations within the agricultural sector are set to experience a **compound annual growth rate of 20 percent** over the next few years. Broken down, this equates to an expected growth of 12 million connected agricultural devices (recorded 2014) to 225 million by 2024.

Source: Challenge Advisory – Farming: Who is Driving the Industry's Digitalisation?

Rural America...solutions
require “*infrastructure*”
investment in
Human Capital

Private Equity Investment....Rural Business Investment Program (RBIP)



The 2002 Farm Bill created the new Rural Business Investment Program (RBIP), designed to promote private equity and developmental venture capital investments in smaller enterprises located in rural areas.



FARM CREDIT

*Community
Banks*

Open Prairie Rural Opportunities Fund, LP a \$100 million targeted-fund **was awarded its license from the USDA** in December 2017 and closed on investor commitments which included **6 Farm Credit System institutions, 11 commercial and community banks** along with several farm organizations, ag-related family offices and individual investors passionate about advancing agriculture and providing growth to rural America.

Entrepreneurship...start early

While 74% of fifth grade students find school engaging, that number drops to 34% for 12th graders in what Gallup calls the **student engagement cliff**. Source: *The Entrepreneurial Learning Initiative*

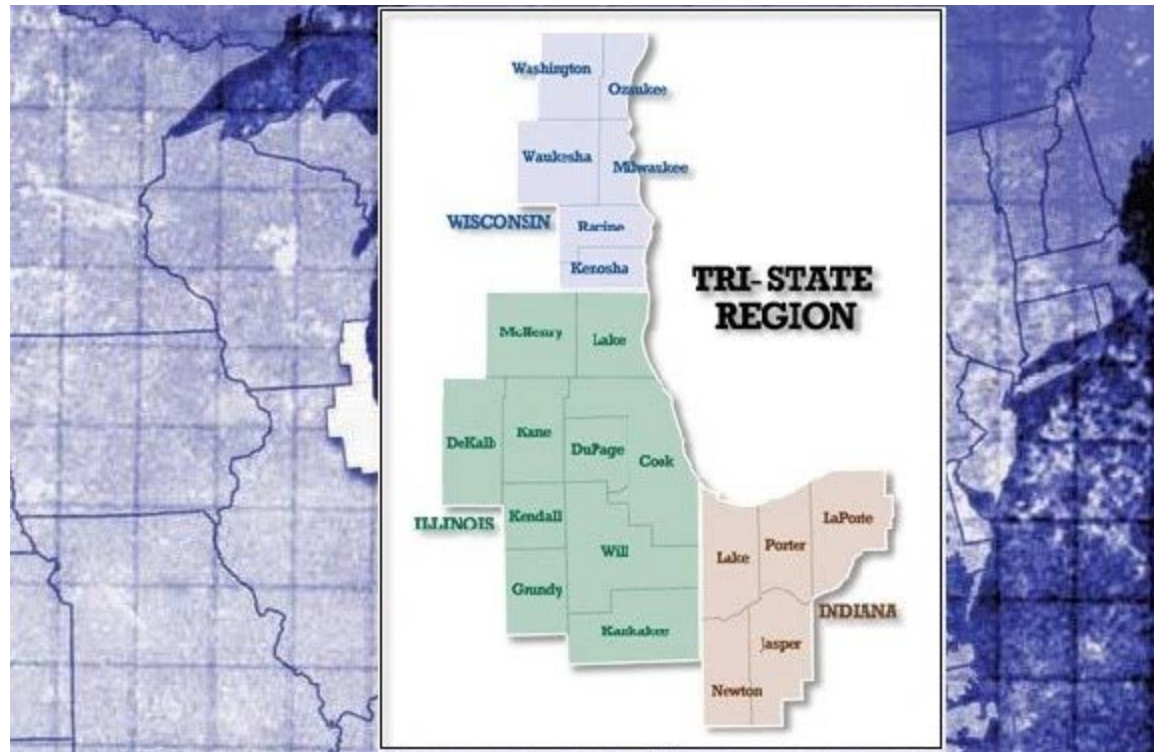


Regional Collaboration...workforce development



Alliance for Regional Development

Chicago | Northeast Illinois | Southeast Wisconsin | Northwest Indiana



Our opportunity....our responsibility



**“A society grows great when old men
plant trees whose shade they know they
shall never sit in.”** *Greek proverb*

For additional information...



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