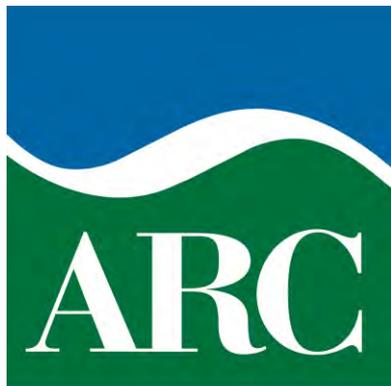


Mark C. White

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**APPALACHIAN  
REGIONAL  
COMMISSION**

# Analyzing Economic Diversity: Demonstrating an Economic Diversity Webtool

*March 11, 2014*

# About the project

- Research sponsored by the Appalachian Regional Commission
  - Quantitative and qualitative research
  - Guides for Action
- Motivation:
  - Appalachia's legacy of low economic diversity
  - Little practical guidance for communities pursuing diversification
- Lead research organizations:
  - University of Illinois at Urbana-Champaign's Regional Economics Applications Laboratory
  - Center for Regional Economic Competitiveness
- Research support from:
  - RUPRI Center for Rural Entrepreneurship
  - EntreWorks Consulting

# Webinar Agenda

- Defining economic diversity
- Broad trends in economic diversity
- Demonstrating an economic diversity webtool
- Questions

# Defining economic diversity

- Entropy measure of diversity

$$ENTR = \sum_{i=1}^k (p_i) \ln \left( \frac{1}{p_i} \right)$$

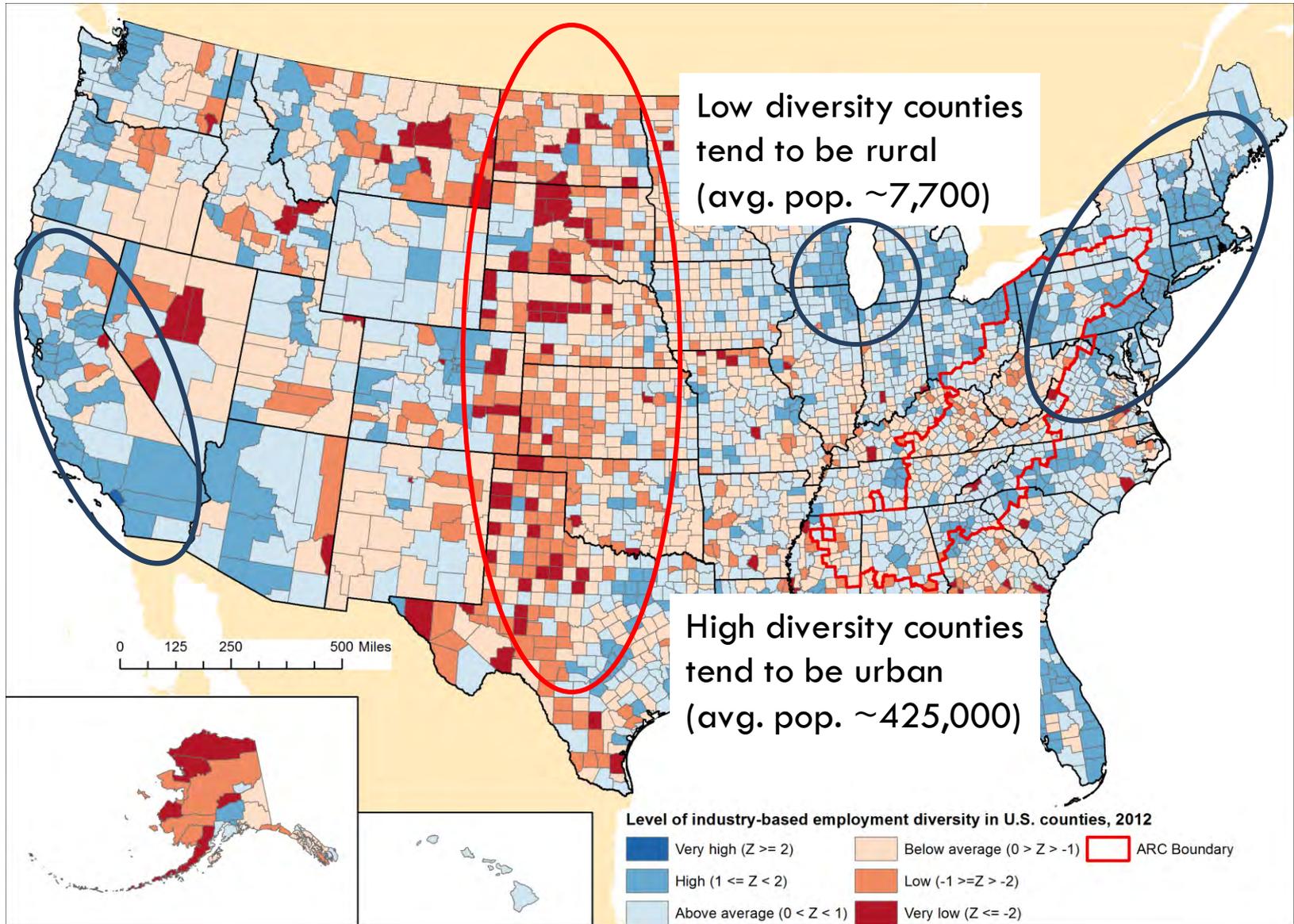
There are  $i=1$  to  $k$  categories and  $p_i$  is the share of employment in the  $i$ th category

- Diverse places have:
  - Employment in more categories
  - More evenly distributed employment across categories

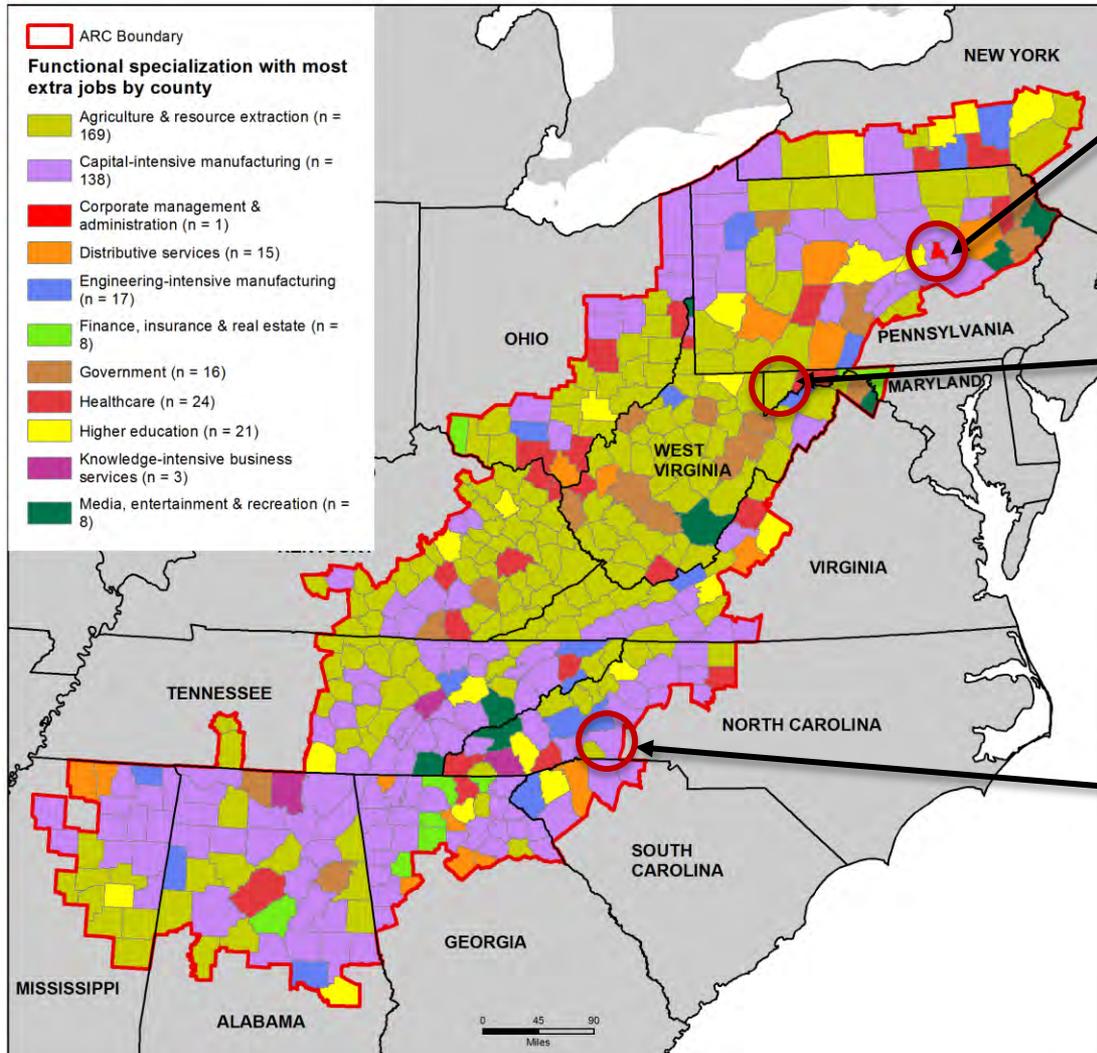
# Three perspectives on diversity

- **Industrial** – 1,110 detailed industries
  - Aircraft manufacturing
  - Paper mills
  - Architectural services
- **Functional** - 11 industry groups with similar inputs and final markets
  - Engineering-intensive manufacturing
  - Capital-intensive manufacturing
  - Knowledge-intensive business services
- **Occupational** – 96 occupation groups with similar skill requirements
  - Assemblers and fabricators
  - Secretaries and administrative assistants
  - Top executives

# Urban counties tend to be more diverse

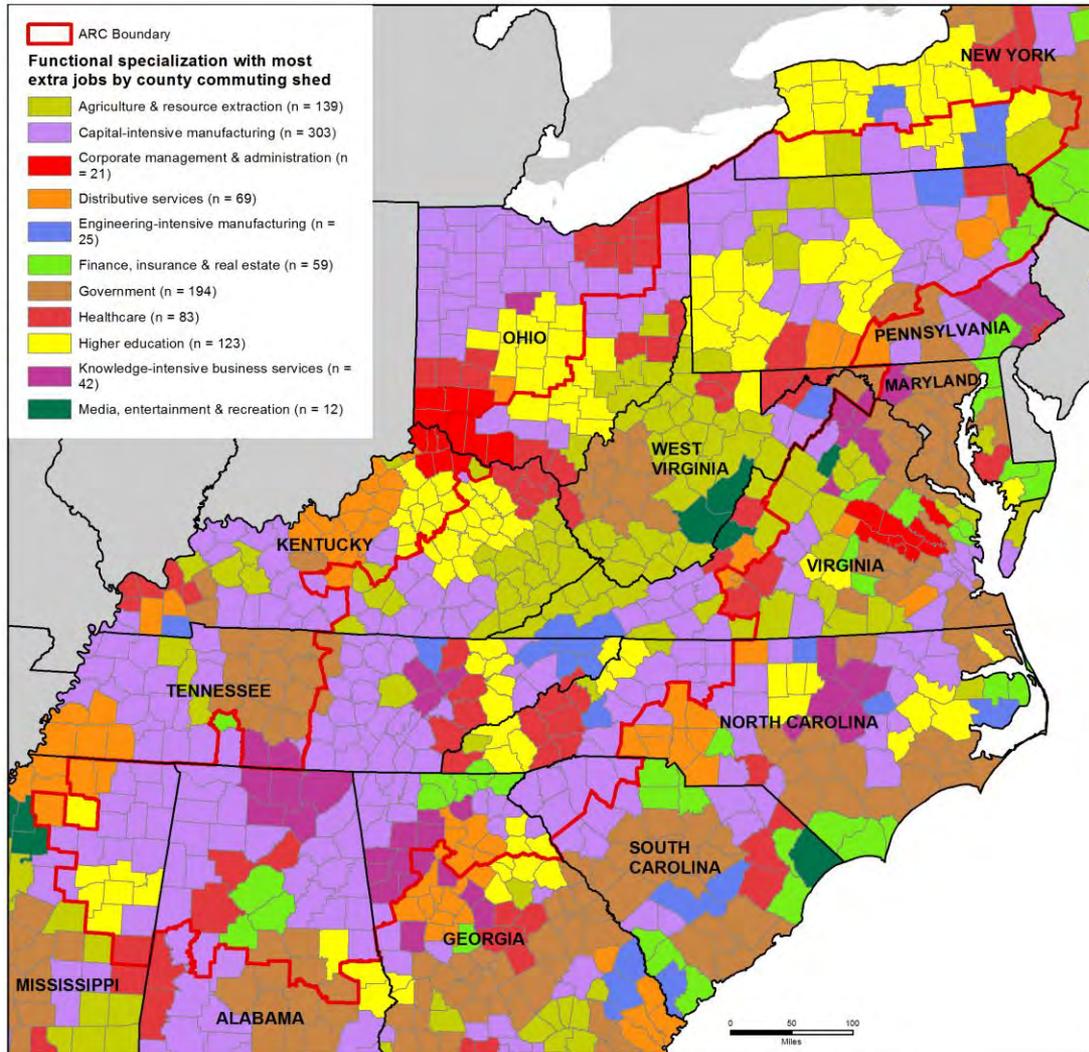


# Complex connections between economic diversity and outcomes



- Montour county, PA
  - Low functional diversity
  - HQ county of medical center
- Garrett county, MD
  - Above average functional diversity
  - Diverse strategies helped recover from economic shock in the mid-1990s
- Rutherford county, NC
  - High functional diversity
  - Declining base of manufacturing

# Regional centers can influence effective county diversity



- Most counties lose more commuters than they gain
- Commuters flow toward diversity
- Specializations in regional centers play outsized role

# Diversity's role in economic development practice

- Good diversification strategies implement many successful specialization strategies simultaneously
  - The goal is multiple specializations, not just a generic mix of industries
- Diversity is a scale dependent concept
- Places pursue diversification to help mitigate risk and take advantage of opportunities
- Achieving diversity requires sound economic development practice
  - Establishing a process that enables the pursuit of a long-term vision
  - Thinking and operating regionally
  - Working across silos
  - Possessing strong regional leadership
  - **Being data-driven**

# The Diversity Webtool

- The tool helps practitioners be more *data-driven* in how they think about economic diversity
- The tool provides data, indicators and visualizations to help practitioners:
  1. Understand basic growth trends,
  2. Consider their community and region's economic diversity, and
  3. Identify other places with similar economic conditions.

# We will cover four simple scenarios to demonstrate application

1. How is my economy doing? Relative to who?
  2. How diverse is my economy?
  3. How diverse is my workforce?
  4. What counties have similar economies to my own?
- On to the tool:
    - <http://economicdiversityinappalachia.creconline.org/>

# To learn more about Economic Diversity

- Study results are available here:
  - [http://www.arc.gov/research/researchreportdetails.asp?REPORT\\_ID=108](http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=108)
- The summary report
  - [http://www.arc.gov/assets/research\\_reports/EconomicDiversityinAppalachia-StatisticsStrategiesandGuidesforAction.pdf](http://www.arc.gov/assets/research_reports/EconomicDiversityinAppalachia-StatisticsStrategiesandGuidesforAction.pdf)
- Supporting documents
  - Statistical portrait
    - [http://www.arc.gov/assets/research\\_reports/EconomicDiversityinAppalachia-StatisticalPortraitofEconomicDiversityinAppalachia.pdf](http://www.arc.gov/assets/research_reports/EconomicDiversityinAppalachia-StatisticalPortraitofEconomicDiversityinAppalachia.pdf)
  - Case study report
    - [http://www.arc.gov/assets/research\\_reports/EconomicDiversityinAppalachia-CaseStudiesinEconomicDiversification.pdf](http://www.arc.gov/assets/research_reports/EconomicDiversityinAppalachia-CaseStudiesinEconomicDiversification.pdf)
  - Guide to using the webtool
    - [http://www.arc.gov/assets/research\\_reports/EconomicDiversityinAppalachia-PractitionersGuidetoEconomicDiversityWebTool.pdf](http://www.arc.gov/assets/research_reports/EconomicDiversityinAppalachia-PractitionersGuidetoEconomicDiversityWebTool.pdf)

# Thank you! Questions?

- Data/metric-related questions:
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- Diversity/webtool-related questions:
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