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Payroll Employment (Year-to-Year Growth)

-4%  -2%  0%  2%  4%

2002  2003  2004  2005  2006  2007

IN Forecast  IN Data  US Forecast  US Data

Payroll Employment (Year-to-Year Growth)
Per Capita Personal Income
(Index: 1990 = 1.0)
Per Capita Personal Income (Relative to the United States)
Unlocking Rural Competitiveness: The Role of Regional Clusters

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Project Background

• U.S. EDA sought analysis and a model process to help *rural regions* evaluate their economies and develop *strategic plans* to strengthen them

• National competition yielded two EDA grants:
  • IBRC-PCRD-SDG team
  • Monitor Group at Harvard

• Key to winning the grant: *partnership* among universities, private sector, and state government
  • IDWD, OCRA, Governor’s office offered support
  • SIRDP brought regional stakeholders together
Overall Goals of the Study

• **Phase 1:** Develop a *database & methodology* to assess economic growth opportunities and guide strategies for the nation’s rural areas
  • Analyze *industry clusters* as keys to growth

• **Phase 2:** *Test* the usefulness of this database and methodology in an *actual rural region*
  • Help stakeholders plan an effective *regional economic development strategy*, using innovative analytical approach to identify *comparative advantages*
We Analyzed Seventeen Clusters

Used in both national & regional analyses:

1. Advanced Materials
2. Agribusiness, Food Processing and Technology
3. Arts, Entertainment, Recreation and Visitor Industries
4. Biomedical/Biotechnical (Life Sciences)
5. Business and Financial Services
6. Chemicals and Chemical-Based Products
7. Defense and Security
8. Education and Knowledge Creation
9. Energy (Fossil and Renewable)
10. Forest and Wood Products
11. Glass and Ceramics
12. Information Technology and Telecommunications
13. Transportation and Logistics
14. Manufacturing Supercluster (with 6 subclusters)
   • Primary Metal Manufacturing
   • Fabricated Metal Product Manufacturing
   • Machinery Manufacturing
   • Computer and Electronic Products Manufacturing
   • Electrical Equipment, Appliance and Component Manufacturing
   • Transportation Equipment Manufacturing
15. Mining
16. Apparel and Textiles
17. Printing and Publishing
There’s predictable regional variation in how different clusters are distributed.

Categorizing a region around a single cluster is too simplistic due to the considerable co-location of clusters.

Most of the 17 clusters are concentrated in urban counties. The most urban clusters are business and financial services; biomedical/biotechnology; information technology and telecommunications; and printing and publishing.

The three clusters with the strongest rural orientations are agribusiness, food processing and technology; forest and wood products; and mining.

Although rural economies have historically lagged behind urban economies, there’s some evidence of a narrowing gap between rural and urban economic performance.

The clusters most strongly associated with higher economic performance are business and financial services; information technology and telecommunications; and printing and publishing.

Human capital (measured by educational attainment) is the main factor related to differences among counties in income growth.
Our Test Region: EGR 8

Population ~ 300K

A mix of rural & metro characteristics

Variety of industries: some large, many small
Average EGR 8 Earnings per Job by Major Sector & Type of County

- EGR 8 Total
- Monroe County (Low Rurality)
- All Other EGR 8 Counties (High Rurality)
• Formed a Regional Advisory Committee (RAC). Shared with RAC the results of cluster analysis.
• RAC held eight planning sessions to identify clusters and cluster groups to activate in the first phase of strategy implementation.
• Planning team gathered and analyzed additional data.
• RAC used location quotient analysis to understand the region’s economy.
• Planning team promoted the planning process in several ways in order to engage regional stakeholders.
• RAC identified several clusters and infrastructure issues on which to work.
• RAC chose several cluster-based projects to pursue.
• RAC has developed, in conjunction with the Southern Indiana Rural Development Project, a grant application for project funding, and will develop others.
Industry Cluster Employment by County in EGR 8

Note: Symbols are placed randomly in each county. Size of symbol indicates number of employees. Absence of colored symbol means the cluster does not exist in the county.
Industry Cluster Establishments by County in EGR 8

Cluster Classification
- Advanced Materials
- AgriBusiness, Food Processing and Technology
- Apparel and Textiles
- Arts, Entertainment, Recreation and Visitor Industries
- Biomedical/Biotechnical (Life Sciences)
- Business and Financial Services
- Chemicals and Chemical-Based Products
- Defense and Security
- Education and Knowledge Creation
- Energy - Fossil and Renewable
- Forest and Wood Products
- Glass and Ceramics
- Information Technology and Telecommunications
- Manufacturing Supercluster
- Mining
- Printing and Publishing
- Transportation and Logistics

Note: Symbols are placed randomly in each county. Size of symbol indicates number of establishments. Absence of colored symbol means the cluster does not exist in the county.
EGR 8 Clusters Without Monroe County, 2001-2004
Key Findings: EGR 8 Region

- The most specialized (concentrated) clusters in EGR 8:
  - education & knowledge creation (LQ = 3.2)
  - mining (LQ = 2.9)
  - advanced materials (LQ = 1.7)
  - biomedical/biotechnical (LQ = 1.2)
  - chemicals & chemical-based products (LQ = 1.7)
  - forest & wood products (LQ = 1.2)

- Four of these clusters became more specialized from 2001 to 2004, with LQs for the advanced materials and chemicals clusters increasing quite dramatically.

- On the other hand, the mining and forest and wood products clusters saw a decline in their LQs.
Key EGR 8 Findings (cont’d)

• Five clusters became more specialized during this period, but had relatively modest 2004 LQs:
  • defense and security (LQ = 1.0)
  • agribusiness, food processing and technology (LQ = 0.9)
  • energy (LQ = 0.9)
  • printing and publishing (LQ = 1.0)
  • business and financial services (LQ = 0.5, up nearly 20 percent)

• Six clusters had relatively low LQs that decreased from 2000 through 2004:
  • manufacturing supercluster (LQ = 1.0)
  • arts, entertainment, recreation and visitor industries (LQ = 0.6)
  • glass and ceramics (LQ = 0.6)
  • transportation and logistics (LQ = 0.6)
  • apparel and textiles (LQ = 0.5)
  • information technology and telecommunications (LQ = 0.4)
Key Findings: A 2-Pronged Strategy

- Many of the region’s key assets are located in Monroe County, the county with the largest population and home of Indiana University.

- Excluding Monroe County from the analysis, the LQs change significantly for several clusters. This means the region is composed of two distinct sub-regions.

- The 2-stage analysis with and without Monroe County suggests an integrated 2-pronged development strategy for EGR 8:
  - One component aims to take advantage of existing cluster strengths in the more rural areas of the region.
  - The other component aims to build stronger connections between the more rural counties in EGR 8 and the metropolitan assets and capacity in Monroe County.
Indiana’s EGR 8 Cluster Strategy

1. Arts, Entertainment, Recreation and Visitor Industries
2. Biomed/Biotech & Advanced Materials
3. Defense & Information Technology
4. Agribusiness, Forest & Wood Products, and Natural Resources
5. Highway Corridors (Critical Infrastructure)
6. Broadband Telecommunications (Critical Infrastructure)
Discussion