Role of the Research University in Supporting Regional Recovery & Reemployment: Lessons from Purdue University & North Central Indiana

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Background: Purdue & NC Indiana WIRED

- Purdue University (Indiana’s land grant university)
  - A mission that includes learning, discovery, and *delivery*
  - 69,000 students
  - “Research 1” Institution
  - Top rankings in engineering, business, agriculture
- $15 million investment from DOLETA in 2006 (Gen1)
  - Only WIRED initiative led by a university
- Four Key Strategies
  1. Developing 21st Century talent
  2. Creating globally competitive industry clusters
  3. Building a regional support system for entrepreneurship
  4. Weaving a supportive regional civic infrastructure
Background: Purdue & NC Indiana WIRED

- 70+ partners/subcontractors
- **Traditional Metrics as of June 30, 2009**
  - 15,000 trained (incumbent & unemployed)
  - 1,200 degrees/certifications
  - 3,000 unemployed placed in jobs
- **Non-Traditional Metrics as of June 30, 2009**
  - $2.1 million industry cost savings
  - $4 million in sales retained
  - $1.2 million in sales growth
  - 645 new top-line growth ideas generated
  - 19 new business plans developed
  - 8 new products/services launched
  - 2 new business launched
The Industry Clusters Approach
Linking & Leveraging Industry Cluster Assets

• Move university innovations into the region’s “star” industries
  – Identify strongest regional clusters
  – Identify relevant university innovations
  – Recruit pilot Industries

• Use an Enterprise Wide approach to move innovations into industry through:
  – Tech transfer
  – Technical assistance
  – Skill development at all levels
Tools: Industry Clusters Analysis

Database, analytical tools, and processes to help regions assess their economic competitiveness and create strategies for growth and development

http://www.ibrc.indiana.edu/innovation/

Developed by the Purdue Center for Regional Development & Indiana Business Research Center with funding from the U.S. Economic Development Administration
Example: Nano-structured Coatings

- Match a industry need (i.e., increased competitiveness of tool and die shops) with a university innovation (nano-structured coatings)
- Integrate the innovation into the industry
  - Tech Transfer
  - Technical Assistance
  - Skill Development – *Nano-structured Coatings Technologist*
- Integrate into the community college tool-and- die program
The Occupational Clusters Approach

Occupation Cluster Location Quotients and Percentage Change in LQs, 2001-2007, U.S. Counties

C3: Engineering and Related Sciences

Note: The location quotient compares a county’s employment concentration in the occupational cluster to the nation’s concentration in that cluster.
Tools: Occupational Cluster Analysis

Analytic tools to explore employment size, growth, location quotient, and shift share for 15 knowledge-based occupation clusters. These tools help regional leaders understand their workforce and educational situation in order to bridge the gap between workforce and economic development. It is also useful to diagnose how well-positioned the region is to participate effectively in a knowledge-based innovation economy.

http://www.statsamerica.org/innovation/

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Example: Skills for the Green Energy Sector

- Large numbers of workers in both the mechanical technology and electrical technology occupational clusters have been laid off in North Central Indiana.
- Emerging green energy technologies (i.e., hybrid vehicle production) requires workers that know **BOTH** electronics and mechanics.
- Training programs are implemented to fill the skill gaps of both groups.
- New electromechanical occupational cluster can help attract new investment.
Contact

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