Regionalism: Implications for Academic Affairs

ALC -- February, 2012

A Re-Conceptualization of the Research Enterprise

New university model is emerging
- The list of America’s top 50 universities will change profoundly in this century based on 3 issues: Location, Programs, Collaboration - Eugene Trani, President, Virginia Commonwealth University, 2007
- All states have focused programs that encourage/require university involvement in economic or workforce development – National Governors Association
- The Obama administration targets funding programs on post-secondary engagement in local communities
- Lumina and other groups establish a direct relationship between higher education and economic prosperity

Gig.U (Aspen Institute)
‘The best of these ecosystems will be cities and towns that combine a university, an educated populace, a dynamic business community and the fastest broadband connections on earth.’

**Emphasis on Competitiveness, Innovation, Job Creation, and Economic Recovery**

- **Workforce Development**
- **Economic Development**
  - Institutional intellectual property to the market
  - Local entrepreneurs linking to campus facilities/people
  - Collaboration on loan and start-up funding
- **Community Development**
  - Health care, K-12, social service collaboration
  - Civic engagement
  - Healthy social environments

**What Universities Offer to Community/Economic Development**

- A source of innovation—social, technical, scientific
- Education able to be adapted to community economic needs and futures
- Political clout and financial credibility
- A history of engagement that now needs to be more substantial

**What Are the Challenges?**

- The time (compliance requirements) required for management of projects
- The talent required for the management of projects
- Revenue expectations (the fiscal model)
- Friendship issues as opposed to substantial outcomes
- Long term versus short term expectations

**More Challenges for the Chief Academic Officer**

- Capitalizing on the learning value of research and outreach
- Managing the communications flow between the faculty and partners
- Strategic decisions about investments in curriculum and faculty
- The politics can be consuming (over promising and under valuing)
- The lack of good assessment models
- The lack of reward structures
Institutions Must Ask…

- What resources exist internally?
- What are the needs and assets of our community/region?
- How do we approach job creation?
- Do we want to “plan” for future employment?
- Should we look at only a financial model?

Attend to Communications

- Does the institution speak with one voice?
- Is there an office that coordinates programmatic external relations?
- Do we have negotiations standards?
- Do we worry about the transparency of the use of institutional resources?
- Do we have the capacity to track ongoing relationships?

Dept. of Labor
Workforce Innovation Fund

National Endowment for the Arts
Our Town

Dept. of Commerce - NIST
Hollings Manufacturing Extension Partnership Program (MEP)

Dept. of Education
Investing In Innovation (i3) Fund

National Robotics Initiative

- Interagency initiative including NASA, the Office of Science and Technology Policy (OSTP), NSF, NIH, DOD, USDA and other aligned agencies.

- FY 11 awardees
  - University of Maryland - Baltimore County
  - Central State University (Ohio)
The Industry/University Cooperative Research Centers Program (I/UCRC) – FY 11 AASCU member awardees include Howard University, University of Central Florida and Ball State University. Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (RISE).

Sixteen federal agencies are working together on this unprecedented initiative to drive job growth through public-private partnerships in at least 20 regions around the country. High-growth clusters from rural and urban regions across the nation will compete for award funds. The Innovation Accelerator Challenge will accelerate the development of strong industry clusters - like the Research Triangle in North Carolina - that promote robust economic ecosystems and the development of a skilled workforce.

Regional Innovation Clusters competitions in FY 10:
- *Clemson University, Francis Marion University, South Carolina State University, and UNC Charlotte (Carolinias Nuclear Collaborative members)
- *Delta State University, Jackson State University, and University of Southern Mississippi (Enterprise for Innovative Geospatial Solutions partners)
- *Northern Illinois University, Southern Illinois University Carbondale, and University of Illinois at Chicago (Illinois Science and Technology Coalition partners, a unit of the Illinois Smart Grid Regional Innovation Cluster)
- *Cleveland State University, Youngstown State University, and University of Akron (NorTech partners)
- *(Upper Michigan Green Aviation Coalition has 41 partners, including universities, not clear which of our members belong)*
RICs - $12 M

1 iGreen New England Partnership
2 Igniting Innovation (i2) Cleantech Acceleration Network (FL)
3 Proof of Concept Center for Green Chemistry Scale-up (MI)
4 Louisiana Tech Proof of Concept Center
5 Iowa Innovation Council i6 Green Project
6 Washington Clean Energy Partnership Project

RICs - $37 M

Jobs and Innovation Accelerator Challenge
1 GreenME
2 Finger Lakes Food Processing Cluster Initiative
3 New York Renewable Energy Cluster
4 Southwestern Pennsylvania Revitalization
5 Northeast Ohio Speed-to-Market Accelerator
6 Southeast Michigan-Advanced Energy Storage Systems Initiative
7 Advanced Composites Employment Accelerator
8 Atlanta Health Information Technology Cluster
9 Space Coast Clean Energy Jobs Accelerator
10 Milwaukee Regional Water Accelerator Project

RICs - $37 M (continued)

Jobs and Innovation Accelerator Challenge
11 Rockford Area Aerospace Cluster
12 St. Louis Bioscience Jobs and Innovation Accelerator Project
13 Minnesota's Mining Cluster
14 KC Regional Jobs Accelerator
15 The ARK: Acceleration, Resources, Knowledge
16 Center for Innovation and Enterprise Engagement
17 Upper Missouri Tribal Environmental Risk Mitigation
18 Washington Interactive Media Accelerator
19 Portland Regional Clean Tech Advance Initiative
20 San Diego-Imperial Valley Renewable Energy Generation Training/Demonstration Center

Startup America Policy Challenge

Forums about Funding & Policy to Promote Entrepreneurship
- In the U.S. education system, what can the government do to best enable the use of new learning technologies?
- In the U.S. energy system, what can the government do to best enable the use of new clean energy technologies?
- In the U.S. healthcare system, what can the government do to best enable the use of new health information technologies?
Great Lakes Manufacturing Council

- U.S./Canadian organization devoted to maintaining and increasing the competitive advantage for manufacturing and preserving the prosperity of the Great Lakes Region.

- “The Great Lakes Manufacturing Council works to promote, preserve and enhance manufacturing in the Great Lakes Region. We foster innovative partnerships, identify best practices, enhance resources and increase exposure to new ideas. Collaborating among council members, we will help manufacturers and their communities compete.”

http://greatlakesmanufacturingcouncil.org/index.cfm

Who can we partner with?

......INTERNAL.......................EXTERNAL......

Private Industry

- Economic Development Agencies
- Investors
- Foundations
- Inter-Agency Initiatives

Industry Commitment to R&D

$398B

NOTES: Data for 2008 are preliminary. Other includes universities and colleges, state and local government, and other nonprofit organizations.

SOURCE: National Science Foundation, Division of Science Resources Statistics, National Patterns of R&D Resources (annual surveys). See appendix table 6-7.

Science and Engineering Indicators 2010
Industry leaders, economists, and consumers generally expect that the economy will be better in 2012 than in 2011, and definitely improved over 2010.

81% of industry survey respondents estimate that their R&D budgets will increase or stay the same for 2012 (at least in current dollars).

Source: Battelle, R&D Magazine
Depts of Labor & Education
- The Trade Act Assistance Community College Career Training (ETA) program

EDA, SBA, & DOL
- Jobs and Innovation Accelerator Challenge

NSF & DOE
- Quantum Energy and Sustainable Solar Technologies (QESST) program

NSF & NIH
- Advancing Health Services through System Modeling Research

Federal Interagency Working Group on Environmental Justice (EJ IWG)
- Established in 1994, the role of the EJ IWG is to guide, support and enhance federal environmental justice and community-based activities.
- Comprised of 17 federal agencies and several White House offices.

NEA Interagency Task Force
- National Endowment for the Arts is leading a new task force of 13 federal agencies and departments including HHS, NIH, and the Dept. of ED to encourage more and better research on how the arts help people reach their full potential at all stages of life.

The Health Information Technology for Economic and Clinical Health (HITECH) Act
- "Seeks to improve American health care delivery and patient care through an unprecedented investment in health information technology."
Advancing Health Services through System Modeling Research – NSF 12-515

- fosters new collaborations among health services researchers and industrial and systems engineers, with a specific emphasis on the supportive role of health IT by accepting and reviewing investigator-initiated proposals in this area.
- It is envisioned that successful proposals will be submitted by investigators from industrial engineering, and/or systems engineering, and/or management science fields in collaboration with health services researchers.
- Approximately $1 to $2 million is available in support of 3 to 6 awards.
- Proposals are due: February 15th, 2012

Implications for Higher Education

- Emergence of the importance and value of sponsored programs and research administration
- Institutional planning and decision-making must be prominent and backed by rewards
- Faculty engagement must be coordinated and focused
- Institutions must speak with one voice

Implications for Higher Education

- Institutionalization of entrepreneurship— must define the outcome and process
- Institutional rewards must support and promote outreach
- Outreach must involve listening to needs and adapting programs
- Negotiations processes and skills must be taught

Negotiations

- Approach partners as equals
- Establish a win-win model based on transparency of contributions and benefits
- Record in writing the relationships with specific outcomes
- Organizations identify point of negotiation, represent faculty interests, and support assessment of faculty services
LAMAR UNIVERSITY
- Public institution in Beaumont, TX
- Member, Texas State University System
- 14,500 Students, 600 Faculty
- 5 Academic Colleges (A&S, COB, COE, ED&HD, FA&Q)
- Carnegie Doctoral Research University
- 120 BS/MS, Doctorates in 9 Areas
- SACS Accredited + Disciplinary Accreditations

COMMERCIALIZATION & INNOVATION CENTER
- Bring emergency technologies out of research into marketplace
- Initial EDA funding (U.S. Department of Commerce)
- Building funded with Hurricane Ike Disaster Recovery money (HUD, Texas Land Office)
- Strengthen existing industries, help diversify economy, enhance regional ED capacity
- Technology driven, Concept to commercialization
- Regional Planning Commission, Chamber of Commerce, County, City, State, 2 LU Colleges, Local Business and Industry

ADVANCING NEW TECHNOLOGIES AT LAMAR UNIVERSITY
- Chartered by Chamber of Commerce
- Support and enhance LU as a center for technology and commercialization
- Advocate, establish relationships for academic/industry opportunities
- Encourage ventures to site in region
EMERGENCY ALERT SYSTEM
- LU Electrical Engineering and Local Company
- Alerts passenger vehicles when emergency vehicle approaches
- Placed inside passenger vehicle on windshield
- Visual and audio alerts
- Unhindered by weather and distractions
- Significantly increases safety for drivers, passengers, first responders

LAMAR UNIVERSITY SMALL BUSINESS DEVELOPMENT CENTER
- Free confidential business consulting and affordable training for entrepreneurs and small business owners
- Financing alternatives, loan packages, business plan evaluation to improve productivity and profitability
- Evaluation of market penetration and new market evaluation
- The Big Idea Challenge (students at 4 institutions, collaboration between SBDC and COI Institute for Entrepreneurial Studies)

ACADEMIC PARTNERSHIPS
- LU and TX-based company
- 400+ school districts, 4000+ students first 18 months
- Partner provided LMS, production, marketing, recruitment, distribution
- LU provided faculty, staff, courses, programs
- Resource leveraging, affordability, access, opportunity

OTHER LU INITIATIVES
- Research Foundation
- Border Patrol and Homeland Security (CI Intern placements)
- College of Fine Arts & Communication
  - Department of Music & the Beaumont Symphony
  - Department of Art & the Art Museum of SETX
  - Department of Theater & Dance and Beaumont Community Players
- Community Outreach funded by State of Texas and Entergy Texas
OTHER INITIATIVES ... CONTINUED

- Operation R.E.D.
  - Faculty, staff, and students
  - Partnership with SETX Food Bank

- Institute to Study & Control Invasive Species
  - TSUS initiative (SHSU, LU, TSU-SM, SRSU)
  - 40 faculty researchers
  - Leverage expertise and resources
  - Early detection & elimination of multiple IS
  - 800 aquatic & terrestrial species invaded TX
  - Impact food supply, infrastructure, natural resources, water supply, national security

OTHER INITIATIVES ... CONTINUED

- Golden Triangle Industries/LU Engineering Partnership
  - Non-proprietary technology transfer
  - Seminars and workshops on campus and on industry site
  - Fosters close cooperation between regional industries and LU College of Engineering

OTHER INITIATIVES ... CONTINUED

- Summer Campus for STEM Underrepresented Students and Teachers
  - THECB Teacher Quality
  - ExxonMobil Bernard Harris Science
  - Texas Workforce Commission Construction Career Academy (high school drop-out prevention)
  - PSU/Duke NSF proposal 21st Century Interactive Optic STEM Careers, with LU and UC San Diego
  - Texas Workforce Commission & THECB
gO Women for Engineering, Science & Technology

FOR FURTHER INFORMATION

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