April 2008

The Year in Higher Education: An Economic Development Perspective

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The year in higher education: an economic-development perspective

Presented by David Hochman
At the Annual Meeting of the National Center for the Study of Collective Bargaining in Higher Education and the Professions
New York City, April 7, 2008

My approach

• The demands and needs of bargaining constituencies are affected by the expectations that society itself places on the institution
• In higher education, that set of demands is changing rapidly and fundamentally, increasingly involving the university as an economic actor

Some key trends, each with implications for those bargains

• The university is now indisputably the driver of national innovation strategy
• The university is now also fully appreciated by state government as a key economic driver
• There is convergence among various aspects of the economic-development mission
• The university – so far, especially the public university – has embraced both these roles
The university as the national innovation driver

- In most industrialized nations, total R&D (all sources, all stages) runs 1.5% to 2.5% of GDP
  - That was $340 billion in FY06 in the U.S. (NSF SEI 2008)
- A large share of economic growth is due to innovation, and a large share of that traces to the knowledge generated by basic science
  - But industry under-invests in basic science, fearing spillovers that can be captured by others
- So, everywhere, national governments fund basic science because no other actor will do so adequately
  - In the U.S. that was $36b (out of $94b in total federal R&D at all stages)

The feds pay for basic research; the university drives innovation

- That $36b in federal money is the majority of the $62b in basic R&D funded by all sources
- $22b or 62% of that $36b in federally funded basic R&D flows to universities
- Within the university sector, that $22b is 64% of the $34b raised from all sources for basic R&D
- National innovation policy and university budgets for basic science are co-dependents!
  - All expectations imposed by Bayh-Dole, COI regs, etc. take place in that context

Recent trends and predictions on the national scene

- We completed the NIH doubling period, but NIH is now flat, and the NSF doubling (the America COMPETES act of 2007) is not funded!
  - In the 1990s/2000s, adding space and recruiting fundable faculty led to growth
- Times are about to get tough.
  - All bargains made on the expectation of continued rapid growth in federal funds for basic science are at risk, raising importance of other actors
The university as a state-level economic actor

- In the end, the feds don’t care where innovation gets translated – only state/local jurisdictions do
- Since the 1980s at least, states have spent about $2 per year per capita extracting value
  - Investing in research that can attract federal R&D
  - Building facilities, funding recruitment
  - Promoting academic/industrial collaboration
  - Challenge grants, research parks, incubators
  - Financing commercialization of intellectual property
- States also have expectations embodied in these funding bargains

States active in the biosciences, 2006

Recent trends and predictions at the state level

- Technology now has a place in every governor’s state-of-the-state or budget address
  - Every state has a ‘bed’ agency, many a separate higher ed investment initiative, and some a stem cell program
- Foundations like Kauffman are spotlighting the efficacy of the Bayh-Dole regime
  - We are seeing increased pushback on conventional royalty-maximizing strategies
- States once willing to invest in higher ed on the argument of capturing federal funds, now have to be offered different reasons
  - It’s the economy, stupid – at the state/local level!
Convergence among aspects of the economic-development mission

• Federal, state, and even philanthropic expectations are converging
• It is no longer sufficient to argue any one separately – they must be viewed as an interdependent whole
• The closer you get to the local level, the stronger the expectations, and the more wide-ranging the implications
  ▫ In the knowledge age, we now accept that cities should thrive around universities, just as they used to around ports, waterways and natural resources
  ▫ What impact is the university having on its locality, as an employer, purchaser, and innovation driver?

Even if politicians don’t understand R&D and innovation, they understand employment

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Source: NYS DOL

Recent trends and predictions at the local level

• ‘Innovation zones’ or equivalents – the old enterprise zone idea plus knowledge content
• Huge S&T recruitments, bringing in universities after the fact
• Locally funded technology-commercialization programs
• Subtle shifts in community partnership/ institutional districts to encompass substance and civic leadership’s ambitions for downtown
The university’s acceptance of these roles

- Once the university mission was traditionally tripartite
  - Over time, a few have explicitly added economic development
- Once the T2 mission was revenue maximization
  - Increasingly it includes spin-off formation and is tied to community-renewal ambitions
- Once the ‘market rules’ where those spin-offs go
  - Now every attempt is made to keep them local
- Once regional industry was seen as an employer of students and provider of unrestricted support
  - Now these companies are vectors for economic impact
- Once communities were seen as charity cases
  - Now they are seen as economic partners/demo sites

Recent events and predictions in the university space

- At NASULGC alone, the outreach/T2 commission (with an ag-extension heritage) was renamed ‘innovation, competitiveness and economic prosperity’
  - At AASCU, economic development made the top 10 policy issues affecting higher ed
  - In tough times, can the private institutions be far behind?
- A cottage industry has arisen of economic-impact studies
  - But it goes way beyond the ‘multipliers’
- Universities will place increased emphasis in their “asks” on commercialization infrastructure
  - E.g., endowed funds for pre-commercialization research and venture-formation

Just some impact studies I found...

Source: [http://tbed.org](http://tbed.org)
Some questions for the near future that may have bargaining implications
• With generational change, will it be impossible to recruit faculty without providing them entrepreneurial outlets?
• Will pressure to provide “surrogate management” for early-stage spin-outs pose compensation challenges?
• Will pension funds serving faculty and staff be asked to play in regional pre-seed investment funds?