

Universities and their regions

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Universities and the regional economy

- Classic success stories: Stanford (Silicon Valley), MIT, Cambridge University, Research Triangle
- Economic policy in the past decades: growing interest in universities as actors in regional economic development
- Growing economic importance of knowledge, technology, innovation
- Universities have been increasingly involved in regional economic development
- 'Third mission of universities' (outputs: patents, licenses, spin-offs; changing institutional environment: national policies, university technology transfer offices)

What do I mean by 'economic impacts'

- Impacts on regional production, income, employment
- Impacts on innovation in the region
- Impacts on new firm formation

Mechanisms of regional university impacts

- ‘Expenditure impacts’
 - students, faculty, staff expenditures
- ‘Knowledge impacts’: knowledge transmission to the region
 - Channels: university graduates taking jobs, university-industry research collaborations, spin-off companies, technology licensing, faculty consulting
- Further impacts
 - regional governance, capital investments, ‘milieu effect’

Universities and the regional economy

- A burgeoning literature in economics and economic geography on regional economic impacts of universities
- What does this literature suggests us about the economic role of universities in their regions? (Drucker, Goldstein 2007, Varga 2002, Varga-Horváth 2015)

University impacts reviewed

- Expenditure impacts
- Impacts on regional innovation
- Impacts on long term economic conditions (new firm migration, attraction of highly skilled professionals)
- Human capital development (teaching)
- Capital investments

Expenditure impacts

- Several studies conducted
- Estimation of 'regional multipliers'
- Input-output analyses, surveys
- Case studies
- Multipliers in the range of 1.5-3.0

Impact on regional innovation

- Broad, extensive literature
- Impacts are measured by patents, innovation counts, number of university spin-offs
- Comparable models, econometric results
- Significant impact of university research on firms innovation in the region is evidenced in many studies
- Industrial differences
- The role of regional economic conditions is highlighted (agglomeration effects: presence of related industries, producer services, industrial research – a ‘critical mass’)

Impact on long-term economic conditions

- Attraction of R&D laboratories, firms, skilled professionals
- This impact is supported by the literature
- Industrial variation (high technology)
- 'Milieu effect' in attracting creative people

Human capital development (teaching)

- Relatively less number of investigations
- Graduates taking jobs in the region
- Highly dependent on regional economic conditions
- Potentially the most significant impact on the region

Capital investments

- Capital investments: research parks, incubators, technology labs, athletic, recreational facilities – with considerable multiplier effects
- Case-by-case evidence

Factors affecting regional economic impacts

- Agglomeration effects
- Regional culture (collaboration, entrepreneurship level)
- Internal organization of the university (financial incentives, reward structure at the departmental level (tenure))

Discussion topics for the panel

- Which economic functions of universities are more significant in your region: expenditure, teaching, innovation?
- Regional leadership role of your university: what is your experience on this?
- Faculty attitudes towards commercialisation/regional development in your university?
- Experience on the role of TTOs in transferring technologies to your region?