

This research brief series is intended to provide overviews of different strands of research associated with the Impact of Higher Education Institutions on Regional Economies research initiative.

The initiative is a major research venture jointly funded by the Economic and Social Research Council (ESRC) together with the four UK Higher Education Funding Bodies in England, Scotland, Wales and Northern Ireland. The initiative involves researchers from across the UK and is coordinated by the University of Strathclyde.

The initiative, which began in 2007, aims to promote better understanding of the key economic and social impacts generated by higher education institutions in the UK. There are nine projects, involving academics from across the UK, examining issues of:

- higher education institutions and regional competitiveness
- influence of students and graduates on regions
- knowledge exchange between University and Industry
- universities and community engagement

For further information about the initiative and related research, please see:
<http://www.impact-hei.ac.uk>

R E S E A R C H B R I E F S E R I E S

No. 1
Investigating Business-University
Innovation linkages

The UK Government places a lot of importance on interaction between research institutions and business, and provides financial incentives to foster such collaboration. But to what extent do firms choose to locate their research and development (R&D) facilities near to universities? And are innovative companies which are situated closer to university research departments more likely to engage with them - either through formal collaborative agreements or knowledge sourcing?

Researchers at the Centre for Market and Public Organisation – an ESRC research centre at the University of Bristol – and at the Institute for Fiscal Studies, London have been finding out.

Their work provides valuable insights for those concerned with regional and innovation policy, or involved in higher education institutions and science parks.

Key Findings

The science park factor

- There is some evidence that pharmaceutical firms locate their R&D facilities within 10 kilometres of world-class rated university chemistry departments, indicating the importance to them of accessing localised expertise. But in this industry and others, the location of R&D also appears to be linked to the presence of science parks.
- Many R&D-intensive and science-based start-up businesses - including university 'spin-outs' or start-up companies - locate in science parks which aim to support and promote the transfer of technology among innovative organisations.
- Science parks are frequently linked to local universities, which have often played a role in their establishment.

Production considerations

- In the chemicals, vehicles and machinery industries, R&D facilities tend to be located in areas with higher manufacturing employment, and which are relatively specialised in the respective industry, rather than being very near to universities. This suggests that being co-located with the production side of their operations – both within and outside the firm -might be the more important consideration for them.

Co-operation increases with proximity

- There is evidence that in some industries, innovative firms sited nearer to related university departments are more likely to engage with higher education institutions (HEIs). For example, chemicals firms located closer to high-rated materials science departments are more likely to co-operate with local universities and to source information from them.
- Firms in the vehicles industry which are located nearer to university mechanical engineering departments are also more likely to co-operate with local HEIs.
- So while the findings imply that, in general, firms in these industries do not particularly locate their R&D facilities close to related university research departments, it appears that where they are geographically near, they tend to engage more.

About the Study

This project was undertaken by Dr Helen Simpson, of the ESRC-funded Centre for Market and Public Organisation, at the University of Bristol, together with Dr Laura Abramovsky of the Institute of Fiscal Studies. It included combining Office for National Statistics (ONS) data on the location of firms' R&D facilities and information from the Community Innovation Survey (CIS) on companies' interactions with universities, with measures of the presence and quality of university research in relevant subject areas from the 2001 Research Assessment Exercise (RAE).

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