

## **Impact of Higher Education Institutions on Regional Economies Joint Research Initiative**

<http://www.impact-hei.ac.uk>

### **Research Brief Number 19**

#### **Public sector budget constraints reduce the expenditure impact of universities on the Scottish economy but not as much as sceptics think**

Conventional analyses of the impact of universities' expenditures on their host economies treat Higher Education Institutions (HEIs) like any other business that demands goods and services within the region. In addition to identifying the direct spending injection of the HEIs, studies estimate 'multiplier' or knock-on impacts by summing up subsequent internal feedbacks within the economy. In recent years, doubt has been cast on the value of these conventional analyses. Extreme sceptics believe that regional public sector budget constraints and regional resource constraints mean that the real impact of HEIs expenditures on the regional economy is negligible.

One of the criticisms levelled against deriving the economy-wide expenditure impact of HEIs in the conventional way is that they attribute to HEIs the impact of spending public funds. Another criticism levelled against conventional regional impact analyses involves an argument that asserts the presence of '100 per cent crowding out'. This suggests that when demand in one region stimulates employment, it reduces employment in other regions and therefore the overall impact is negligible.

This study provides a systematic critique of these arguments for Scotland, showing the importance of taking devolution into account in conducting regional impact analyses. Although the Scottish Government has devolved powers in making spending decisions, its income is constrained by the block grant it receives from the central government. Devolution is also an important factor in considering the '100 per cent crowding out' argument.

In Scotland, the HEI sector is clearly important for the regional economy, if taken at face value. Based on conventional (input-output) assumptions, HEIs (including student spending) account for 2.28 per cent of gross output, 2.63 per cent of GDP and 2.76 per cent of employment in the region. The controversy concerns whether the traditional input-output (IO) accounting approach may be providing a misleading estimate of the sector's contribution.

### **Key Findings**

#### **Conventional impact studies overestimate the impact of HEIs expenditures on their host region**

- Some 54 per cent of funds for Scottish HEIs come from devolved public sources. Therefore, around half of the regional expenditure impacts of Scottish HEIs are not caused by the HEIs themselves but by the availability of public funding. If these funds were 'switched' to other public services similar results could potentially be obtained.

### **Conventional regional impact studies overlook the importance of binding public sector budget constraints under UK devolution**

- Since the Scottish Government's income is constrained by the central government grant, if it allocates additional funds to HEIs, fewer funds are available for other public expenditures. Therefore, treating the Scottish Government's funding of HEIs as an external stimulus to the regional economy is misleading.

### **Conventional impact studies fail to accurately identify the additional injection from students' consumption expenditures**

- Conventional IO impact analyses of student expenditures either treat all HEI students' expenditures as additional expenditure within the host region or only consider the expenditures of students who move into the region to study as additional.
- However, although the whole of external students' expenditures can be regarded as exogenous to the host region, the distinction between exogenous and endogenous consumption of local students is less clear.
- A part of local students' income, and hence expenditure, comes from wages earned from local industries and transfers from within local households. Therefore, it is endogenous to the local economy.
- The only exogenous components of local students' expenditures are those financed from commercial credit taken out during their years of study, student loans and grants.
- Per student, the net contribution to the regional economy is greater for incoming students than local ones as there are fewer deductions of incomes that should be treated as endogenous.

### **Sceptics are mistaken in thinking that HEIs expenditures have a negligible overall impact on their host region**

- Although conventional impact analyses overstate the expenditure impacts attributable to HEIs, the remaining impact is nonetheless substantial in Scotland, since almost half of HEI funding does not come from the public sector.
- The '100 per cent crowding out' argument is not relevant since it only applies at the level of the UK as a whole. It is quite legitimate for the Scottish Government to be concerned about the expenditure impact of HEIs on the Scottish economy.
- Even if the regional public sector budget constrains public spending on HEIs, 46 per cent Scottish HEI funding comes from other sources.
- Scottish HEIs are characterised by significant exports (to the rest of the UK and the rest of the world). Changes in export demand do not trigger any offsetting expenditure switching among other final demands.
- If funds used to finance the Scottish public sector were switched to HEIs, there would be a small net positive multiplier effect reflecting the lower import propensity of HEIs. However, switching of public funds to students would have a net negative multiplier impact.

## Implications

### **Regional expenditure constraints matter a great deal for the appropriate conduct of regional impact analyses**

- It is important to recognise public-sector expenditure constraints that are binding under devolution. Future regional impact studies should be modified to accommodate these constraints.
- In a UK devolved context, changes in public expenditure are determined by the regional government but financed by central government grant. These inevitably involve expenditure switching and have an opportunity cost in terms of alternative uses within the region. The multiplier effects are accordingly more subdued. This is a crucial result that needs to be more widely appreciated in impact studies.
- Care must be taken in determining the source of financing for any impact study applied to a region with a devolved budget.

## Methodology

In this study, analysis of HEI impacts is based on a purpose-built, HEI-disaggregated IO table. The expenditure impacts of HEIs are derived using standard IO assumptions. However, the study shows how the conventional IO assumptions, and current practice, have to be modified to accommodate the binding budget constraint of the Scottish Parliament.

The study also implements a novel treatment of student expenditure impacts, which seeks to identify the degree to which students' consumption expenditures should be treated as independent of the activity of the local economy (exogenous) or driven by the overall level of income within the economy (endogenous).

Details of Scottish students' income and expenditures are drawn from a comprehensive survey 'Higher and Further Education Students' Income, Expenditure and Debt in Scotland 2007-08'

by Warhurst, C., Commander, J., Nickson, D., Symeonides, A. Furlong, A., Findlay, J., Wilson, F. & Hurrell, S. (2009) Edinburgh: Scottish Government Social Research. Retrieved from the World Wide Web: <http://www.scotland.gov.uk/Publications/2009/06/24115743/02>

## Further Information

The study was carried out by Kristinn Hermannsson, Katerina Lisenkova, Peter G. McGregor and J. Kim Swales at the Fraser of Allander Institute, Department of Economics, University of Strathclyde.

To contact the authors of this research:

Kristinn Hermannsson  
Department of Economics  
Rm. 7.15, Sir William Duncan Building  
University of Strathclyde  
130 Rottenrow  
Glasgow  
G4 0GE  
Scotland, UK  
Tel: +44 (0) 141 548 3956 (EXT. 3956)  
Email: [kristinn.hermannsson@strath.ac.uk](mailto:kristinn.hermannsson@strath.ac.uk)