

LOCAL ECONOMIC IMPACT OF UNIVERSITIES

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ABSTRACT

The local economic impact of a large tertiary education institution such as a university is an issue which has attracted considerable attention in literature. Beck et al (1995, 246) define economic impact as „the difference between existing economic activity in a region given the presence of the institution and the level that would have been present if the institution did not exist.” Generally, there are three substantial problems. First, the definition of impact, second, measuring and estimating first-round expenditures and avoiding double-counting, third, estimating the correct value of the multiplier. The economic impact study has become a standard tool used by Western universities to persuade state legislatures of the importance of expenditures on higher education. If this tool is to be used effectively, it must be applied with a methodological rigor that promotes integrity of the process. As economic impact studies become a political tool in the review of education, conservative assumptions and methods should be used to promote objectivity in the research process.

1. INTRODUCTION

The impact of higher education institution on local economy is extensively wide. Universities have important impact on the input and the output side, or on the demand and supply side, also. In the first chapter of the article we analyze a general model, while in the second we focus on the economic impacts. Some empirical results are summarized in the third part.

2. GENERAL IMPACTS OF UNIVERSITIES

As Florax (1992) and with minor modifications Garrido-Iserte and Galoo-Rivera (1995) show, the regional and local effects of a university can be observed in many fields (see Table 1).

Dusek (2003) sorts the impact into input and output side effects (with students on sides, see Table 2 and 3). He also mentions an important (economic) factor; the main financial source of the university is the government budget.

These classifications are not far from the Segarra I Basco (2003) model, who divided backward and forward effects. Among the forward effect localization factors (instead of attractiveness) he also mentions foreign investment and high-tech companies (that are typical actors of technopolis type clusters).

Huggins and Cook (1997) transferred the keywords into drivers and outcomes, and in their approach, one cannot find hard measures on the driver side, while hardly have soft outcomes.

Brown and Heaney (1997) concluded that the input size effects may be better measured, while the knowledge transfer has mainly social function. Notwithstanding, Beck et al (1995) argues that social (human capital) factors must be heeded, unless the major part of impacts would not be incorporated.

About the OECD's survey on “Higher Education in Regional and City Development” see Keczer (2012).

Table 1. Classification of regional/local impacts of universities

Impact on	Example
Politics	Changes in the political structure, an increase in citizen participation, improvement in the organization of political processes
Demography	Impacts upon population growth, population structure and upon mobility
Economy	Impacts upon regional/local income, industrial structure, job market, labor mobility
Infrastructure	Impacts upon housing, traffic, healthcare services, retail
Culture	Greater offer in cultural goods, influence upon cultural environment
Attractiveness	Influence upon the region's (local) image, regional (local) identity
Education	Impact upon participation rate, changes in its quality
Social aspects	Impact upon the quality of life, the influence of the students, influence upon the region's (local) image and regional (local) identity

Source: After Florax (1992) and Garrido-Iserte - Galoo-Rivera (1995)

Table 2. Regional/local impacts of universities on the input side

Actor	Changes
Households	+ income + employment + consumption
Local authority	+ tax base + services
Business	+ volume of business

Source: After Dusek (2003)

Table 3. Regional/local impacts of universities on the output side

Factor	Changes
Human capital	+ qualification + new firms + migration
Knowledge	+ university-business relations + extensive use of resources
Attractiveness	+ location choice of households and firms + cultural and social possibilities
Business	+ research and development, exhibitions

Source: After Dusek-Kovács (2009)

3. ECONOMIC IMPACTS OF UNIVERSITIES

Pallenbarg (2005) modified the table of Lambooy to achieve a complete list of economic impacts (see Table 4). Garrido-Iserte and Gallo-Rivera (2010) also attached importance to the separation of short and long term effects, and constructed a matrix of impacts (see Table 5).

Table 4. Regional/local economic impacts of universities

Economic impacts of a university	Example
Employment at the university	Number of university jobs and related institutions
University income	State contributions, fees, benefits arising from entrepreneur activity, etc
University expenditure	Purchase of goods and services by the university
Income and expenditures of the university employees	Wages and salaries, social security costs
Effects on the job market	Qualified job provision effect upon productivity; flexible working supply of the students
Generation of business	Companies created by university students and employees, with or without employment knowledge and technology
Knowledge marketing	The sale of knowledge in a variety of ways: from ideas, courses and patents

Source: Pallenbarg (2005)

Table 5. Classification of the economic impacts of the universities

Impacts upon	Short term	Long term	
Expenditures	Increase of the regional GDP Salaries Employment Taxes	Steady increase of regional GDP Investments on equipment and installation	
Knowledge	Changes in the job market Development of human capital	<u>Subjective</u> Externalities Workers productivity Increase of income throughout life	<u>Objective</u> Patents Investigation and development

Source: Garrido-Iserte and Gallo-Rivera (2010)

Brown and Heaney (1997) compare two approaches of the computation, the economic-base approach and the skill-base approach. Johnson (1994) argues to divide local and local, direct and indirect impacts, but he also attends to various negative impacts of universities and to the necessity of a net approach (i.e. individuals could spend more, if the government did not tax them to be able to pay the expenditures of universities).

In Bleaney et al (1992) we can find a brief, but clear mathematical deduction of the formula of the Keynesian regional multiplier. This method is the most often used computation, with a series of disadvantages and deficiencies. Its simplicity makes it so popular.

4. CONCLUSIONS

Even if the theoretical background is well-known, estimation methods are wrought and discussed (see for example Siegfried et al, 2006), and many international empirical example can be found in the literature (Caroll-Smith 2006, Blackwell et al 2002, Pallenbarg 2005, Jabalameli et al 2010, Tavoletti 2007, Huggins and Cook 1997, Bleaney et al 1992, Bridge 2005, Ohme 2003), only one finished case study is known for Hungary, the case of the University of Győr (Széchenyi István University). Some

steps were also made in Pécs (Mezei, 2005) and in Zalaegerszeg, but these researches have not reached the level of having at least one numerical result. An optimal state of art would be having multiple results with different methods and comparative analysis of applicable country-specific methods. This goal is very far yet, but the way is open to achieve.

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