Chapter III

Intellectual Assets and Knowledge Vitality in Urban Regions: The Role of Universities

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ABSTRACT
Recent studies have shown that universities and similar public sector research institutions differ in their relationships with user organizations both in relation to the type of new knowledge transferred and to the mechanisms of such transfer. Both the relationships and knowledge transfer are critically affected by the level of sophistication of the receiving companies. The creation of ‘urban knowledge’ has many dimensions, which means that spatial proximity to the sources of new knowledge does not automatically encourage firms to take advantage of what is on offer. Thus, the knowledge generated by universities has a critical function on the availability of local and international knowledge to the city and region where it is located, but much needs to be done for this knowledge to become relevant and absorbed in its geographical area. To show these dual processes, this chapter analyzes the region of Western Sydney at two levels: the knowledge demanded and the knowledge produced and transferred. Ultimately, the answer to the question of how universities can best contribute to the intellectual vitality of the place where they are located and which knowledge is relevant.
**INTRODUCTION**

As the world becomes an increasingly urbanized place, the production and attraction of knowledge in urban areas also rises in importance. Universities and research-intensive organizations have both of these functions embedded—the production of knowledge through teaching and research, and the attraction of knowledge through investing in new staff, staff mobility, and staff scientific networks. Universities are increasingly being recognized as knowledge hubs, exercising a strong influence in the intellectual vitality of the city where they are embedded. How universities fit this role is not well known and although several efforts have been made to evaluate universities as an industry sector in their own right, much less is known of the contribution universities make to intellectual life, specifically ‘how’ they transfer knowledge into the urban region.

Recent studies have shown that universities and similar public sector research institutions differ in their relationships with user organizations both in relation to the type of new knowledge transferred and to the *mechanisms* of such transfer. Both the relationships and knowledge transfer are critically affected by the level of sophistication of the receiving companies. The creation of ‘urban knowledge’ has many dimensions, which means that spatial proximity to the sources of new knowledge does not *automatically* encourage firms to take advantage of what is on offer. Thus, while the knowledge generated by universities has a critical function on the *availability* of local and international knowledge to the city and region where it is located, much needs to be done for this knowledge to become *relevant and absorbed* in its geographical area.

Universities and research institutes are often in a central position as information and communication gatekeepers, and responsible for much of the intellectual vitality of the area where they are placed. A high proportion of staff working at these institutions are scientists, with multiple connections to industry, government institutions, community groups, and policymakers. These scientists are involved in knowledge-intensive activities with other interest groups in the local area which generates, attracts, diffuses, and transfers knowledge. The results of these knowledge activities affect the intensity of knowledge flows, the initiation of projects of economic development, innovation diffusion to other organizations, and the development of the ‘place’ where the university is embedded. Although the impact of these ‘intellectual assets’ in urban areas is intangible and difficult to measure with economic techniques, their influence could be great, projected years later in the adaptation of local industry to global changes; the attraction of knowledge workers, scientists, and innovative industry; and the development of a learning economy.

This chapter draws on a study conducted under a partnership between the University of Western Sydney (UWS) and the Office of Western Sydney to analyze the intellectual dynamics of UWS’s knowledge generation, transmission, and transfer activities into the Western Sydney region. The question that lies behind the study is how universities can best contribute to the intellectual vitality of the cities and regions in which they are embedded. The chapter offers some policy recommendations to maximize the role of universities in urban development.

**BACKGROUND: CONCEPTS AND ISSUES**

The Contribution of Universities to Development

Universities are increasingly recognized as independent business entities within an industry sector of significance for local and national economies. Studies of the economic impact of the higher education sector can be measured through the indicators shown in Table 1.