

# **Economic Issues**

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**Is Adelaide a University City?**

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## **Recent Issues Papers**

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10. pril 2004.
- 9.
8. Penny Neal and Anh Thu Nguyen, March 2004.
- 7.
6. Hancock, Marianne Herbert and Steve Whetton, April 2003.
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2003.
- 4.
- 3.
2. August 2001.
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## 1. Introduction

There has been rapid growth in the number of overseas students attending South Australian universities over the past ten years. To further capitalise on the growing education sector and transform Adelaide into a university city the South Australian government encouraged the establishment of a number of international universities offering subsidies to cover initial set up and running costs of their campuses. Three overseas institutions have been lured to Adelaide, including: Carnegie Mellon University (CMU) in 2006, the now closed Cranfield University in 2007 and University College London (UCL) in 2010. Adelaide now has five universities and is described by the state government as a university city. To determine if the label is valid, this paper defines characteristics of a university city and compares Adelaide with the internationally recognised University Cities of Oxford and Cambridge in England, and Cambridge, Massachusetts in the United States. If Adelaide is not a university city, discussion of alternate policies to transform Adelaide into one is provided.

most universities; rather they are University Cities through the footprint left by the university in the local community, in terms of employment in the university, attraction of students, creation of high-tech jobs, production of high calibre graduates, quality of research and community contribution. This paper does not argue that attracting foreign universities to Adelaide has not had a positive effect on the city. Rather, it argues that the presence of these universities has provided students a high quality education providing courses in a niche market, raising the international profile of Adelaide as an education destination. But these universities have a small cohort of students and research oriented academics which limits their overall impact in terms of contributing to Adelaide a university city.

The University of Adelaide, University of South Australia and Flinders University are highly ranked, the University of Adelaide, is part of the prestigious Group of Eight universities; a coalition of leading Australian universities intensive in research and comprehensive in professional education. The University of Adelaide was ranked well above world average across a number of fields, especially medical research, which has traditionally been the universities key strength. It recently announced a \$50 million investment in Roseworthy Campus and the intent to attract six world-class animal and crop researchers.<sup>i</sup>

This paper contains the following sections: Section 2 defines the characteristics of a university city using the examples of Oxford and Cambridge England and Cambridge Massachusetts; Section 3 considers whether Adelaide is a university city and potential policies that would help it to become one; while Section 4 provides concluding remarks.

## 2. Characteristics of a university city

Characteristics of University Cities that the SA Centre for Economic Studies (SACES) identifies as defining a university city:

- the university acting as the most significant employer in the town in terms of direct employment of research, teaching and administration staff at the university and associated research centres and institutes;
- a large student base as a proportion of the total population;
- regional employment in high-tech businesses; and

significant presence in terms of the city area occupied by the university and on-campus supporting infrastructure such as student accommodation.

In addition strong linkages exist between the university, community and business sector promoting cooperation, collaboration and knowledge sharing. The next section of the report discusses each of these characteristics in detail, see Table 1 for a list of the universities designated by city which are discussed in this paper.

By comparison Harvard University and Massachusetts Institute of Technology (MIT) in Cambridge Massachusetts d

two single largest employers were Harvard University (10,718 employees) and MIT (7,604 employees), while the next largest employers were the City of Cambridge (2,922 employees) and the biomedical research institute Novartis (2,095 employees). When compared with universities in metropolitan Adelaide, MIT and Harvard University employ a much la workforce and are the principal employer in Cambridge Massachusetts.

In England the University of Cambridge and University of Oxford directly employ 9,110 persons and 9,443 FTE persons in their respective cities or 10.1 per cent and 8.8 per cent of employment in each city respectively. The University of Oxford including its colleges and Oxford University Press is the largest employer in the city and second largest employer in the Oxfordshire County. In terms of direct and indirect employment the university supports more than 18,000 jobs (University of Oxford, 2012). Similarly, the University of Cambridge employs approximately one in every ten employees in Cambridge; while supporting many more indirect jobs. Both the University of Cambridge and University of Oxford are the principal employer in their respective cities.

A caveat readers should keep in mind when interpreting results in Table 2 is the different pattern of urban development in the United Kingdom and Australia.

share common characteristics of high levels of urbanisation, metropolitan primacy and residential suburbs supported by transport-led development. This makes it harder for Australia to have a natural university city as the population is low density and spread over a much larger geographical distance. Therefore the total employment accounted for by universities in metropolitan Adelaide is significantly smaller in comparison to Cambridge and Oxford which have a denser population profile







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Office of Technological Development (OTD) enables the development, transfer and adoption of innovations originating at Harvard, granting licenses to start up companies, providing technical small business know-how, while working in collaboration to develop and deploy the new technology.

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ideas and technologies. These include Adelaide Research and Innovation (ARI) at the University of Adelaide, ITEK at the University of South Australia and Flinders Partners at the Flinders University of South Australia. But in terms of the footprint left on the business sector the impact of

Flinders University has a small presence in the CBD leasing the former Reserve Bank building on Flinders Street wh

South Australia City West and City East campus occupy prominent positions adjacent to and within the CBD, their respective campuses are of smaller scale compared with campuses of international

than six times larger and both campuses are located close to the city centre of Cambridge Massachusetts (the Harvard campus is in the city centre).

## **2.5 Supporting infrastructure**

Infrastructure supporting the Universities of Cambridge, Oxford, Harvard and MIT includes on

student societies, sports facilities, gymnasiums and dining halls which allows students the opportunity to involve themselves in campus life. Off campus infrastructure includes, inter alia, late night book stores, coffee shops, theatres, museums, restaurants, cafes and cinemas allowing students to immerse themselves in city culture and interact with local residents. The university also plays a key role in bringing students together because generally when it comes to social, cultural and sporting events in a university city it is the university rather than the town that is the main organiser.

and townhouses for 310 residents. Both sets of residential facilities are of high quality offering students the opportunity to socialise and interact with each other (Flinders University, 2012). However, most students at Flinders choose to live off-

occupied by the main university campus. Based on these indicators Adelaide does not meet the definition of a true international university city. However, this does not imply that Adelaide cannot strive to encourage the development of these characteristics in the future through strategic state

research. A Graduate Diploma in Energy and Resources: Policy and Practice is awarded to students completing year 1 only, while a Graduate Certificate in Energy and Resources: Policy and Practice is awarded to students completing four first year modules only. UCL also offers a research PhD program. According to the QS University rankings UCL in the United Kingdom is ranked 4<sup>th</sup> in global rankings for 2012 in terms of its overall quality of education and research.

UCL Adelaide has also attracted a number of international students to study at its Victoria Square campus. The mix of international and domestic students attending UCL Adelaide is 50:50.

The South Australian Government provided UCL with \$3.5 million to establish a campus in South Australia as well as some part-support for rent at their site in Victoria Square (UCL Adelaide, 2012). Santos has provided some initial funding to establish the campus through the provision of scholarships, research operations over its first eight years (University College London news, 2008). A number of private businesses have also provided funds towards scholarships including, BHP Billiton, KOGAS and several other private energy companies.

### ***Cranfield University***

Cranfield University was launched in 2007 specialising in defence related fields offering long and short courses in areas including electronic warfare, integrated logistics and explosives. In July 2008 Cranfield offered three two day courses involving 60 students and a ten day course for which student numbers are not available (Cranfield University Shuts up Shop in Adelaide, 2010, The Australian). The State government allocated \$1 million as part of the initial start up cost before the -based Cranfield University closes Adelaide base, *The Advertiser*, 2010).

In total, the South Australian Government has provided \$27.8 million in funding to support the development of three new universities in South Australia in an attempt to achieve a University City.

There are several advantages of attracting private universities such as CMU and UCL to Adelaide. They bring with them an established and internationally renowned reputation for the high quality teaching and research which is important to attract students. In addition their campuses are kept small and fill niche markets in the local education sector. Michael Worton, the Vice Provost at UCL, notes that “*the overseas campuses are deliberately kept small so that they can experiment with their teaching and operational practices...the major advantage of a niche campus is that, by definition, it has a strong and sharp academic focus, in terms of both its disciplines and the nature of the education and training it will offer*”(University College London Big Visions, small overseas campuses, 2012). On the other hand, despite these advantages, given the specialised courses on offer, relatively small numbers of students and academic staff at their Adelaide campuses and limited space for campus expansion within the CBD, CMU and UCL are more limited in their capacity to transform Adelaide into a University City according to the definition of a University City outlined in Section 2.

### **3.2 Strengths of South Australian Universities**

Excellence in Research Australia (ERA) assesses the strength of South Australian universities by using measures relating to researchers, research outputs, research income, and reputation as well as other measures.<sup>xiii</sup> Traditionally South Australia has been strongest in the fields of health and medical research, with other key strengths in agricultural science, veterinarian sciences, performing arts and creative writing and environmental sciences (particularly environmental science and management

standard across 90 per cent of assessed research fields and of research fields which were given the







**Table 7: Ranked importance of factors when choosing an international study destination (1 is most important, 9 least important)**

	Education agent						Students					
	China	Indonesia	Korea	Vietnam	Thailand	India	China	Indonesia	Korea	Vietnam	Thailand	India
Cost of living	5	3	3	3	2	3	3	2	3	3	1	3
Cost of travelling	8	9	9	8	7	9	8	7	8	6	5	9
Cost of tuition	2	1	1	1	1	2	2	3	2	2	2	1
Cost of visa	9	8	8	9	6	8		8				



while funding could be provided to open more positions for engineers and scientists involved in research at institutions such as DSTO in Salisbury to keep graduates in the state and provide a base for them to develop their skills.

### **3.6 Conclusions**

In a university city the University pervades all public life and forms the most important part of the city, not just physically in terms of the campus buildings but culturally and economically. It can be seen that the universities of Cambridge, Oxford, Harvard and MIT are the most important institutions in their respective cities, acting as the principal employer. These institutions form an integral part of their respective cities and the campus site, located in the city centre, is large with a range of supporting infrastructure for students which are ever present in the city centre forming a substantial portion of the total population. The research intensity of these universities combined with drawing the best and brightest academic staff and students from across the world results in research which is world leading in terms of its significance, originality and rigour with commercial applications, which has been shown to lead to technology transfer from the university to the business community. This is evidenced by high tech clustering of firms and employment in Cambridgeshire, Oxfordshire and along Route 128 in Massachusetts.

Attracting CMU and UCL has provided positive benefits to the state in terms of providing high quality education in niche fields and offering courses which are flexible in their teaching and operational practices. However, these institutions would appear to have limited capacity to contribute to Adelaide becoming a university city given the small scale and teaching focused nature of their operations. In terms of gove.-137(stati, )-49(loca)6(te) TJETBTsi19(t1 0 0 1 211.97 687.1 5bo.ET k,-



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University of Cambridge (2012), University of Cambridge, Cambridge, United Kingdom, viewed 10<sup>th</sup> September 2012, < <http://www.cam.ac.uk/>>

\_\_\_\_\_ (2012), Cambridge facts and figures, January.

\_\_\_\_\_ (2011) *Annual Report*, Cambridge University Press, Cambridge.

University of Oxford (2012), University of Oxford, Oxford, United Kingdom, viewed 10<sup>th</sup> September 2012, < <http://www.ox.ac.uk/>>.

\_\_\_\_\_ University of Oxford, Staffing figures 2011.

University of South Australia (2012), University of South Australia, Adelaide, South Australia, viewed 10<sup>th</sup> September 2012, < <http://www.unisa.edu.au/>>

\_\_\_\_\_ (2011), Annual Report.

## **Appendix A**

**Definition of high-tech industries used for Cambridgeshire, Oxfordshire and the United Kingdom according to Glasson, J., Chadwick, A. and Lawton Smith, H., (2006) using 1992 SIC codes.**

<b>High-tech manufacturing</b>	<b>1992 SIC Category</b>
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## **Appendix B**

### **Definition of high-tech industries for Massachusetts, using 2007 NAICS codes.**

<b>High-tech industry</b>	<b>2007 NAICS category</b>
Pharmaceuticals	3254

## Appendix C

**Definition of high-tech industries in South Australia according to Glasson., J, Chadwick., A, Lawton Smith., H, (2006) using 2006 ANZSIC codes.**

High-tech industry	2006 ANZSIC Category
Reproduction of Recorded Media	1620
Human Pharmaceutical and Medicinal Product Manufacturing	1841
Veterinary Pharmaceutical and Medicinal Product Manufacturing	1842
Aircraft Manufacturing and Repair Services	2394
Photographic, Optical and Ophthalmic Equipment Manufacturing	2411
Medical and Surgical Equipment Manufacturing	2412
Other Professional and Scientific Equipment Manufacturing	2419
Computer and Electronic Office Equipment Manufacturing	2421
Communication Equipment Manufacturing	2422
Other Electronic Equipment Manufacturing	2429
Other Electrical Equipment Manufacturing	2439
Software Publishing	5420
Music Publishing	5521
Music and Other Sound Recording Activities	5522
Wired Telecommunications Network Operation	5801
Other Telecommunications Network Operation	5802
Other Telecommunications Services	5809
Internet Service Providers and Web Search Portals	5910
Data Processing and Web Hosting Services	5921
Electronic Information Storage Services	5922
Scientific Research Services	6910
Architectural Services	6921
Surveying and Mapping Services	6922
Engineering Design and Engineering Consulting Services	6923
Scientific Testing and Analysis Services	6925
Computer System Design and Related Services	7000

