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EDITORIAL

Brain drain, brain gain and brain circulation

The term 'brain drain', popularised in the 1950s with reference to immigration to the United States, has, in the past 10 years, become an important if not controversial political and economic issue. Its importance derives from the view that politicians and policy-makers have that brains are the basis for a competitive edge in the so-called 'new knowledge economy'. However, it is not just any old brain. Rather, the race is on between countries to attract the best brains from around the world in order to generate the ideas that will in turn lead to innovations, patents and profits.

The question facing policy-makers, industry leaders and universities, is how to attract and keep these individuals in particular locations—which is what makes this a particularly political matter—as they are clearly moving from somewhere. Much of the concern, then, is with the movement of the talented and highly skilled from those countries that can least afford to lose them, such as many of the sub-Saharan African countries, to countries like the United Kingdom, the United States of America, France and Germany, who seem to act like a magnet by offering better conditions for work and study. This seems particularly unfair if the sending country has invested heavily in the education and training of these students and skilled workers, only to lose them to another country. At the same time, some observers point out that this view fails to take account of the remittances that are often sent back to the home country, in some cases making up a very large proportion of the nations' gross domestic product.

What makes the issue controversial is that opinion is quite sharply divided as to exactly what is going on, and how best to assess what is going on. This division can be seen in the different views on the implications of the World Trade Organization's General Agreement on Trade in Services, specifically the issue of what is referred to as Mode 4 or 'presence of natural persons' in education. What this means is that countries committing their education sectors are being asked to remove any barriers to the free movement of students and academic staff. Developing countries regard Mode 4 as potentially useful in that mobile labour might also bring the benefit of remittances. However, the evidence suggests that 'transfers from educated migrants are not necessarily higher than for uneducated migrants; the former have higher

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earnings potentials but migrate on a more permanent basis (with family) and hence tend to remit relatively less than their unskilled compatriots' (Rapaport, 2002, p. 2). Added to this, given the private nature of remittances, there is evidence that remittances are not useful to the macro-economy and that they also push up prices and reduce parity. There is doubt, then as to whether remittances can ultimately relieve poverty and income gaps on a macro-economic level (Tanner, 2005, p. 5).

It is instructive to think about the movement of students and skilled labour over the past 50 or more years to give us some sense as to whether it is an old pattern that simply has attracted our attention now, or if something new is occurring and if so, what the implications of this are for societies. It hardly needs repeating that much of the movement of students or highly skilled labour has been shaped by the patterns of Empire and the legacy of colonial relations. It was not unusual, then, to find Australians or Indians, for example, studying in British universities. However, this pattern was overlaid with another that had its genesis in the 1950s and the Cold War—particularly with the USA promoting student mobility to the USA through Fulbright Scholarships and funding from the US Agency for International Development. Many of these programmes, which were highly successful, were designed to showcase American-style democratic capitalism to the future elites of less developed and non-aligned countries whilst at the same time enhancing foreign trade-making and intelligence-gathering. Many countries had their equivalent programmes, such as the Commonwealth-based Colombo Plan, which supported students undertaking university studies from countries like Sri Lanka or Botswana.

Since the 1980s, however, there has not only been a tremendous increase in the mobility of students and highly skilled labour. According to a recent United Nations report, the total number of international immigrants (that is, those residing in a country other than where they were born) was 175 million in 2000, or about 3% of the world's population (United Nations, 2002). This is twice as large as it was in 1970. Less than a generation later—1990—the US Census revealed that there were more than 2.5 million highly educated immigrants from developing countries residing in the United States alone, excluding students (Rapoport, 2002). Most importantly, global migration is predominantly the migration of educated labour in the developing countries to the developed (Organisation for Economic Co-operation and Development/Système d'Observation Permanente sur les Migrations, 2000) with 88% of immigrants to the Organisation for Economic Co-operation and Development (OECD) countries having a minimum of secondary education. By comparison, notes Tanner (2005, p. 2), asylum-related migration is only 9% of the 175 million and decreasing.

The size of the problem can be seen on the following figures from the Institute for Public Policy Research quoted by Tanner (2005, p. 3)—where 40% of tertiary-educated adults from Turkey and Morocco, and nearly-one third from Ghana, have emigrated to OECD countries, while over half of the tertiary-educated Jamaicans and Haitians live in the United States. The issue is particularly acute for Africa; Stalker (1994) estimates that between 1960 and 1987, Africa had lost 30% of its skilled professions.

The reasons for the increased movement are also increasingly economic, spurred on by the dynamics of globalisation. Foreign fee-paying students, for instance, are now a significant source of revenue for higher education institutions, while those who specialise in science, engineering and technology are also valued for their potential contribution to the development of new ideas, innovations and patents. Indeed, the USA is dependent on highly skilled science and engineering capacity mostly from countries such as India and China. These individuals are the 'stars' or knowledge entrepreneurs who are sought by the leading global and regional research-intensive universities, research centres and firms.

Countries, regions and cities are now developing strategies for attracting the best talent, or seeking to lure talent back. Malaysia, for instance, has a national strategy for bringing 'home' Malaysian scientists, while the European Commission (EC) has developed a series of instruments—such as Marie Curie resettlement packages or *Erasmus Mundus* launched in 2004 intended to develop Europe as the most favoured destination for study abroad for scholars from around the world. The competition—the United States. Other initiatives promoted by the EC (though initiated by the European Universities Association) have included the development of a new higher education degree architecture amongst member states in order to become a more attractive, responsive and less complicated system which would in turn become the basis for a competitive Europe. The movement of talent and skills from one place to the other is not limited to the higher education sector. Particular categories of skilled labour—such as teachers, doctors and nurses from countries such as South Africa—have been prominent (Adepoju, 2004) and also particularly controversial because of the devastating effects of HIV/Aids, particularly on teachers, undermining an already stressed service. The issue here, it seems, is whether highly skilled labour is likely to return after a period of time in the host country, hence contributing not to the idea of draining the intellectual elite from a country but enabling the circulation of ideas and expertise. However, as some observers note, the policies of countries such as Australia, Canada and New Zealand are oriented towards positive integration (for instance through family settlement), making it more unlikely that this group of emigrant labour return to their home countries (Tanner, 2005).

As we can see, the issues are important, complex and controversial, and likely to become more so as competition steps up between countries and regions. This Special Issue, 'Brain drain, brain gain or brain circulation', is intended to begin a debate in education circles. The articles in this issue address in different but complementary ways the range of important questions generated by the multiple connotations of such terms.

Annie Vinokur's article starts from the recognition that the debates about brain drain in the 1960s are now being reproduced in much the same form, with the same assumptions, despite significant changes in the international economic context. She argues that these debates sidestep a vertical power game of transferring costs and risks to the less powerful, and disguise as a conflict between countries and populations what is fundamentally a conflict between capital and labour.

Phil Brown and Hugh Lauder offer an important and provocative analysis of the notion of the magnet economy—the idea that highly skilled labour will be and is being

drawn to the developed 'centres' and that investments in education to generate human capital will produce the envisaged returns to competition states. The article begins by identifying four dominant sub-discourses that are now powering the 'knowledge economy' discourse in the developed economies. More specifically they argue that these discourses ignore the ways in which multinational firms are transforming their own corporate strategies to take account of the possibility of operating in developing countries with pockets of high skills. They also note that these discourses fail to understand the skill formation strategies of countries such as China, India and Russia.

Christopher Ziguras and Siew-Fang Law provide a summary of the role of international students in national development processes in Australia and Malaysia, two key countries with respect to the emerging education 'industry'. Their particular focus is on the recruitment of international students as skilled migrants, which is increasing in many countries, and most notably in Australia, where the Commonwealth government's immigration and international education policies are closely aligned. They examine how different rationales for linking international students and migration articulate in with the different political economic locations and priorities of the two countries to produce the likelihood of rather different policies towards international students

Michelle Goldberg's article contains both the elaboration of a novel form of policy analysis that she calls a 'discursive web model', and a demonstration/application of that model in an account of the Access to Professions and Trades policy field in Ontario. She describes in detail a discursive shift through which the brain drain discourse became transformed into a dominant 'skills shortage' discursive web as it travelled through various government and other agencies, and interacted with other discourses at a range of scales.

Sylvie Didou Aupetit analyses current discussions taking place on brain drain and Mexico. She notes the increased movement of those who can afford to fund their education abroad themselves, and a decrease in the number of Mexican government scholarships for study abroad. At the same time, Mexico has a limited capacity to attract foreign brains. Her overall argument is that it is possible to see the way in which the Mexican elite is formed with strong inclination towards the United States.

Simon Appleton, Amanda Sives and W. John Morgan compare the experiences and effects of brain drain on teacher recruitment, supply and 'export' of teachers in two neighbouring countries, Botswana and South Africa, the former of which is a net importer of teachers, the latter a net exporter. Within the South African context, the focus is on the government's handling of teacher supply and demand since 2001 (significant as the year when the then Minister of Education accused the British government of 'poaching' its teaching staff). In tracing the history of teacher recruitment in Botswana, the authors highlight the fact that the government recruited expatriate teachers to staff the rapidly expanding secondary school sector in the country in the post-independence era. A key feature of this piece is that it not only reveals some counter-intuitive findings on the situation in the two countries, but augments this through investigations they carried about the impact of brain drain as experienced within a range of individual schools.

In a provocative discussion piece, Godfrey Baldacchino suggests that brain drain/gain need not be, or be conceived as, an exclusively top-down or zero-sum process, where '[e]ven in luring back talent, the reference is typically to brain drain reversal, not rotation or circulation, as if the only safe thing to do with precious indigenous human capital is to lure it back and then force it to stay, or assume that it would naturally do so'. He draws attention to the alternative possibility that it may be 'reconfigured/ reconceptualised in the context of a multiple, cyclical pattern', which he argues could be a powerful tool of analysis, that would apply 'even amongst the smallest and most marginal of the world's islands', around whose experiences of globalisation he bases his argument.

In all, this is an important and provocative Special Issue and we feel sure that it will stimulate new lines of argument as well as reformulations of questions.

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