

doom-and-gloom to those of us which, to paraphrase Guy Neave's words, "still cling to the last vestiges of territorial democracy."



Gallagher, Michael. (2000). *The Emergence of Entrepreneurial Public Universities in Australia*. Canberra, Department of Education, Training and Youth Affairs, Higher Education Division, Occasional Paper Series. Pages: 58. Price: \$14.60 AUD (paper).

Reviewed by Robert Pike, Queen's University

Australia's higher education institutions have probably been subjected during the past thirty years to more radical shifts in organisational forms and loci of control than the higher education sectors of any other western country. In 1973, the Commonwealth [federal] government took over funding responsibilities for most of the institutions, including the universities, and, over time, wound up the various state and federal bodies which had previously acted as buffering agents between government and the academy. Since the late 1980s, when universities and certain other major institutions of postsecondary education were amalgamated in a "unified national system," major policy decisions emanating from federal jurisdiction have included a growing "privatization" of the country's 37 publicly-funded universities in the sense that heavy reliance on block grant public funding has been replaced, in considerable measure, by reliance on private "self-earned" income, including student fees and contract research for the private sector. The present Commonwealth government has greatly increased the pressures on this score. Michael Gallagher who is a public servant with the Commonwealth Department of Education, Training and Youth Affairs (DETYA), the federal organization to which the universities answer, took the opportunity of an OECD Conference held in Paris in September 2000 to overview the policy settings and organizational changes associated with this growth of self-earned income within an increasingly "entrepreneurial" public university sector. This relatively brief, but remarkably detailed, report is the outcome.

I have recently reviewed a major Australian Senate report on the public universities for the *Canadian Journal of Higher Education* (see Vol. XXXII, 1, 2002; 128–133). That report was overwhelmingly critical of government policies and strongly polemical, most notably condemning the growing commodification of the Australian university sector. Gallagher's more modest document explicitly states that it does not "necessarily reflect" the views of DETYA, but, hardly surprisingly, does focus on outlining and classifying the main financial and organisational trends, leaving the readers to form their own conclusions. Nonetheless, the introduction stresses that:

Australia's public universities express a diversity of cultures internally but are commonly driven by a mission to advance the public good. Making money has not become their core business; revenue generation is a means to sustaining the university's broader purposes. (p. 2)

This is nice to know, because the decline in public funding of the system — about 90% of all university revenues in the early 1980s, 64% in 1992 and 52% in 1999 (slightly lower than in Canada overall) — has had to be offset not only by increases in full-fee tuition revenue from international and some Australian students (up from 5% to 10% of all revenues between 1992 and 1999), but also increased tuition fees and tougher repayment schedules for those students who qualify for loans through the Higher Education Contributory Scheme (HECS). Then there are donations and bequests, which Gallagher calls "lumpy and low" in a country with a purported limited philanthropic culture (p. 17), and, most controversially, the search for research and contract income from the private sector. On a sector-wide basis, all research income stood at about 11% of university revenues in 1999, with industry funding accounting for about one-third of this, and growing just marginally faster than other research revenues. Overall, there is no evident rush by private firms to benefit from Australian university research expertise and facilities.

Excluding HECS repayments, a third of Australian university revenue on average depends on the above "earned income" which Gallagher notes "is hard to win...can be volatile and uncertain...costs funds to earn and when earned may be available only for designated activities, with

little discretion for the university at large” (p. 23). This observation is vital because, in one of many informative footnotes, he comments that:

One university has estimated that it costs, on average, across its commercial activities, 92 cents to earn one dollar. There are also salary, infrastructure and on-costs for universities whose staff win competitive grants for research, and government and industry-funded collaborative research centres. (p. 23)

Thus, ironically, whilst reliance on earned income varies dramatically across the sector — from a low of 19% of total revenues at the Universities of Tasmania and South Australia (excluding one small Catholic institution) to a remarkable 47% at the University of Western Australia — all the effort to increase earned income has had very little, if any, impact on financial surpluses. True, some universities have been leaders in instituting the flexible organizational and management shifts required to attract such income, others have been “followers” pursuing dubious policies which institute drastic across-the-board changes without evident financial benefit and adopting internal policies which redistribute earned income “in such a way that the mettlesome feel robbed and the mendicant are shielded from identifying new opportunities and practices” (p. 24). Gallagher’s commentary on these differing management styles, his later categorisation of the main features of the “emergent entrepreneurial” university, as well as the long check-list proposed by the New South Wales public auditors for identifying good practice in universities’ policies for management of paid outside work, all provide valuable material for Canadian readers, and not least for administrators of our universities seeking to augment their institutions’ own depleted public incomes.

However, one cannot escape the evidence that the culture of most western universities does not sit easily with a scramble for corporate funds particularly. Hence, in a section on “the university as contributor to innovation,” a long paragraph is devoted to the findings of an extensive 1999 Australian study of technology transfer and research commercialisation which found user dissatisfaction with university performance...deadlines missed, lack of clearly-defined contact people, and so on (p. 36). To be sure, from an entrepreneurial perspective, there seem to have been some

successes — notably, the 65 Cooperative Research Centres (CRC's) instituted through Commonwealth government programmes — helping to formalise collaborative research links between universities, government research agencies and industry. The latter appear to have been the most effective in:

displacing the culture and values of the lone researcher with a couple of students engaged in the fascinating challenge of curiosity-oriented research by a purposefully managed and directed interactive research process, designed to produce knowledge of value and applicability to the potential users. (p. 35)

But, of course, as in Canada, these are fighting words for many Australian academics, hence Gallagher quotes a recent government report which speaks of :

a major struggle over the appropriate culture for Australian university research... Many see the CRCs and other focussed, application-oriented mechanisms as the harbingers of a new and effective dawn for Australian science. Others resent and resist the intrusion of commercial values into the university arena and the steady loss of independence and autonomy” (p. 35).

In any case, as shown in the above quotation, the purported benefits here are for science and commerce and bio-technology, not the humanities or social sciences which, from my knowledge, are being sorely depleted. Where else would you find an academic introduced on radio as “a specialist in European, Middle-Eastern and Asian Studies;” or find a scholar of Chinese history pressed to teach a course on “Chinese Business?”

Gallagher ends his main analysis with a review of state-university relations, noting a shift over time from state use of directive to the facilitative mechanisms and policies, but, as elsewhere, with a stronger emphasis on accountability. In the centralised context of Australian higher education, the task of assessing the latter will fall to a new body, the Australian Universities Quality Agency (AQUA), which will scrutinise required institutional mission statements required of all universities against reality, and conduct audits of teaching learning and research on a five-year rolling cycle. Mission statements are generally de rigeur these days in western universities, and there's nothing wrong with that if, as in

Australia, they lead sometimes to a careful re-crafting of curricula. But, will the AQUA take into account what Gallagher terms “some unresolved issues” (p. 47) — most notably “academic workloads rising as pressures to publish, teach, undertake new administrative tasks and raise funds all reduce time for quality thinking” (i.e., thinking which is often the benefit derived by the lone researcher and a couple of students); and the fact that diverse demands for specific flexibly-arranged course content modules may undermine curriculum coherence. For opinions on these and other unresolved issues one needs to turn back to the criticisms of the Senate report mentioned earlier in this review. But Gallagher has produced a valuable report for the scholar interested in comparative education and modes of educational change. Perhaps its most valuable feature, whether or nor intended, lies in the message that postsecondary sectors with decades of heavy reliance on public funding do not shift easily into entrepreneurial mode; and some institutions may derive few benefits from trying to do so.



Taylor, Peter C., Gilmer, Penny J., & Tobin, Kenneth, (Eds). (2002). *Transforming Undergraduate Science Teaching: Social Constructivist Perspectives*. New York, NY: Peter Lang. Pages: xxiv, 481. Price: \$32.95 USD (paper).

Reviewed by Janice Dodd, The University of Manitoba

The current reform movement in science education was undertaken, at least in part, in the hope of improving (American) standings in international measures of math and science proficiency, technological and computer literacy, and economic competitiveness. This capitalist agenda to increase the scientific workforce has had the positive effect of increased funding for research into science education and classroom reform. In many K–12 schools, changes have been introduced that replace memorization of science facts with learner-centered scientific inquiry. However, similar reforms have not filtered