

VET-higher ed transfers and the structure of tertiary education

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Abstract

Most discussions of the (re)structure of Australian tertiary education concentrate on the number of sectors (the most favoured being from 1 to 3, with adult and community education still ignored by most), the extent and nature of differences in the sectors' organisational and financial arrangements, and the division of sectoral turf in the Australian qualifications framework.

This paper considers another factor in the structure of tertiary education, student transfers from vocational education and training to higher education. It compares rates of transfer from vocational education and training to highly selective and moderately selective higher education institutions in Australia and 3 US states. It finds that the so-called unified national system of higher education in Australia has more differentiated VET transfer rates than the formally segmented Californian system and less segmented systems in other US states.

The paper concludes by considering the implications of differential student transfer rates for the structure of tertiary education and tertiary education policy generally.

Introduction

There are broadly two considerations in structuring tertiary education. One tendency is to structure sectors and institutions to serve specific needs, most commonly to establish vocational education and training institutions to specialise in developing skills for employment, and higher education to provide general education and education for the high status – high paying occupations. Establishing institutions and sectors with specialist roles is likely to serve those roles better, but there is a risk that some needs outside the specialist roles will not be served, or not served very well.

Another tendency is to establish institutions and perhaps sectors which have different emphases and orientations, but more general roles. This is likely to result in a more comprehensive range of needs being served, but there is a risk that resources will be wasted by roles overlapping and services being duplicated.

Until 1965 Australia followed the second tendency to establish tertiary education institutions with general roles. Thus in 1939 some 15% of Australian university students were enrolled in subgraduate programs including undergraduate certificates (DEET, 1993: 5) and in 1979 some 21% of higher education students were enrolled in diplomas, associate diplomas and other subgraduate programs (DETYA, 1996: table 5.1). Vocational education and training wasn't understood as a sector until the Kangan report of 1974, but vocational education and training institutions were a diverse range from single purpose to comprehensive institutions offering a range of qualifications from certificates to diplomas. Of those the older central technical colleges, which were the origins of the [Australian technology network](#) universities amongst others, had a plural role which included offering highly respected and high level conceptually based qualifications accessed by qualified tradespersons such as diplomas of mechanical and electrical engineering (Stevenson, 2003).

The central technical colleges proposed to the Martin Committee inquiry in 1961-4 into the future of tertiary education in Australia that they be established as a second sector of tertiary education with the dual roles of skills development and providing 2-year higher education

programs, associate diplomas and diplomas. The Menzies Government on the recommendation of education minister John Gorton declined to adopt this proposal, preferring to establish advanced education as a second sector of higher education (Davis, 1989), and by implication having vocational education and training specialise in its skills development role.

Since then Australia, like much of continental Europe, has established a specialised skills development role for its vocational education and training sector, with Kangan (1974) drawing attention to vocational education and training's role in further education, but with the Australian national training authority (2003a) specifying the sector as 'industry-led'.

In contrast Aotearoa New Zealand, the UK, many Canadian provinces and many US states have continued vocational education and training's more general role. The great expansion of higher education following WWII lead to many US states formalising part of vocational education and training's general role as providing the first two years of higher education, known generically as short-cycle higher education (Furth, 1973). The UK Blair government is proposing a considerable expansion of higher education through short-cycle programs (foundation degrees) offered by vocational education and training institutions (Secretary of State for Education and Skills, 2003: paras 3.21, 5.17).

Since assuming his portfolio the Australian minister for education, science and training has consistently proposed that vocational education and training adopt a similar role in providing short cycle higher education (Nelson, 2002a, 2002b) without acknowledging the change in orientation this would entail for a sector that has specialised in skills development for over 30 years.

Australian transfer rates

If vocational education and training is to have a significant role in providing short cycle higher education it is necessary for there to be strong provisions for students to transfer to long cycle and higher level programs lest they be trapped in the sector in which they first enrol. This paper compares rates of student transfer from vocational education and training in Australia with those of 3 US states.

The absolute level of student transfers isn't so interesting, since one would expect transfer rates to reflect sectors' roles in the jurisdictions being compared. In jurisdictions like Australia which has a relatively specialised vocational education and training sector one would expect little student and credit transfer to higher education. Low transfer rates would indicate that institutions and sectors were well differentiated from each other, and that this was well understood by students and other clients. In other words, low transfer rates would indicate the success of a policy of differentiating institutions and sectors. Conversely, one would expect a high rate of students transferring from vocational education and training to higher education whether the sectors aren't so specialised and clearly differentiated, and especially where vocational education and training has a formal and significant role in providing short cycle higher education.

More interesting are the differences in transfer rates between different types of receiving institutions. The table below shows that the group of 8 highly selective Australian higher education institutions admitted 2% of their bachelor students on the basis of a vocational education and training qualification, while the other moderately selective institutions admitted four times as many students on the basis of vocational education and training qualifications.

Table 1: proportion of undergraduate commencing students at the group of 8 Australian highly selective and other moderately selective universities who were admitted on the basis of a vocational education and training qualification, 2001

Segment	Admitted on basis of VET	Total bachelor commencers	% of commencers who are transfers
Group of 8 universities	1,028	45,359	2%
Other universities	10,662	131,745	8%
TOTAL	11,690	177,104	7%

Source: DEST (2002) Higher education student statistics, 2001.

These differential transfer rates are now compared with differential transfer rates for three US states. In two of the three states examined the transfer rates are much higher than Australia's. In the third state it is much lower. But in all the states examined the differences in transfer rates between the highly selective and moderately selective institutions are much less than in Australia.

Comparisons with 3 US states

Transfer rates are considered for California, Colorado and Texas. These states, in common with many other US states, emphasise vocational education and training's role in providing short-cycle higher education. While they have prominent private institutions, most of these states' higher education is provided by public institutions. They also have strong higher education coordinating commissions that produce good data on students transfers. Beyond that, there is no justification for choosing these states rather than a dozen others which could offer equally informative, although different comparisons.

California

California has perhaps the best developed and best known segmented tertiary education system in the US. Direct admission to the research-intensive University of California is restricted to the top 12.5% of all California high school graduates, and admission to the comprehensive California State University is restricted to the top 33% of California school-leavers (Douglass, 2000: 4). The open access California community college system (its vocational education and training sector) is therefore very important in providing access to higher education.

The table below shows that 6.5% of students at the highly selective University of California transferred from vocational education and training and that 13% of students at the moderately selective California State University were transfer students. While the moderately selective university had more transfer students, it had only twice as many transfer students than the highly selective university.

Table 2: proportion of students at the highly selective University of California and the moderately selective California State University who transferred from a community college, 1998-99

Segment	Number of transfers	Total u/grad enrolments	% of u/grad enrolments who are transfers
University of California	10,161	155,412	6.5%
California State University	44,989	336,803	13%
TOTAL	59,906	492,215	12%

Source: California Postsecondary Education Commission (1998) Factsheet 98-1

Colorado

Colorado is another of the wealthier US states, with the 8th highest per capita income of the US states, and a population of 4.3 million, just a little smaller than Victoria's. A relatively high proportion of Colorado's higher education students start in 4-year institutions, so there are fewer students in 2-year institutions seeking to transfer to 4-year institutions in Colorado. Overall transfer rates are therefore lower in Colorado than in California, and they are even lower than in Australia. But while there remain differences between the transfer rates of highly selective and not so selective 4-year institutions in Colorado, again, these are half the comparable differences in Australia.

Table 3: proportion of students at the highly selective and the not so selective 4-year public institutions who transferred from a 2-year institutions, Colorado, 2001

Institution	Number of transfers	Total u/grad enrolments	% of u/grad enrols who are transfers
Sub total highly selective institutions	1,192	45,559	3%
Sub total not so selective institutions	1,399	21,584	6%
TOTAL	2,591	67,143	4%

Source: Jacobs, Jim (2002) Colorado Commission on Higher Education, Data file

Texas

Finally in comparison, Texas has a population of almost 21 million, just a little bigger than Australia's. Its per capita income is just below the average for the US. Texas has a very strong transfer policy (described more fully later as one possible option for Australia) and consequently its 4-year institutions have twice as many transfer students as California. But again, the different transfer rates between highly selective and not so selective universities is much less in Texas than in Australia, as the following table shows.

Table 4: proportion of students at the highly selective and the not so selective 4-year public institutions who transferred from a 2-year institution, Texas, 2000

Institution	Number of transfers	Total u/grad enrolments	% of u/grad enrols who are transfers
Sub total highly selective institutions	10,594	73,039	15%
Sub total not so selective institutions	61,968	237,092	26%
TOTAL	72,562	310,131	23%

Source: Texas Higher Education Coordinating Board (2001a) Report on the performance of Texas public universities.

Summary findings

These results are summarised in the next table. They show that the differences in transfer rates from vocational education and training institutions to highly selective and not so selective higher education institutions in Australia are twice that for the 3 US states examined, even in Colorado which has a lower overall transfer rate than Australia.

Table 5: students transferring from vocational education and training to public higher education institutions, Australia and 3 US states, by selectivity of receiving institution

Jurisdiction	Highly selective institutions	Not so selective institutions	Ratio of highly selective to not so selective
Australia	2%	8%	1:4

California	6.5%	13%	1:2
Colorado	3%	6%	1:2
Texas	15%	26%	1:1.7

This finding is particularly striking when one notes that the difference in transfer rates is lower in California, which formally segments its highly selective and not so selective higher education sectors, than in Australia which has a formally unified national system of higher education. This may not be a fundamental concern if Australia maintains its recent policy of retaining vocational education and training's concentration on skills development. In that case the policy goal would be to improve the equity performance of the highly selective institutions, or if Australia is to return to segmenting its higher education sector, to improving transfer rates within higher education.

But if Australia is to increase the role of vocational education and training in providing short-cycle higher education it will need to improve the transfer of students and credit from vocational education and training to higher education.

3 options for increasing the transfer of students and credit from VET to higher education

Three options for increasing the transfer of students and credit from vocational education and training to higher education are considered here: curriculum mapping; expanding VET's role, say into associate degrees; and establishing a core curriculum.

Curriculum mapping

The first option of mapping curriculum in vocational education and training and higher education comes naturally in Australia. Higher education institutions are used to transferring students and credit based on a comparison of other institutions' programs with their own, and recently the results have been recorded in partnerships, pathways and credit transfer agreements with vocational education and training institutions. This is acceptable but labour intensive and patchy. A more systematic approach to mapping curriculum is inhibited by the current implementation in vocational education and training of training packages, which are based on (a) competencies (b) in workplace skills (c) assessed in the (simulated) workplace. As Wheelahan (2003) observed, this does not develop the knowledge that underpins all skills, including workplace skills; it does not develop skills other than workplace skills, such as learning how to learn or study skills; and it does not develop students' capacity for self-evaluation, critical reflection and career planning needed to manage a career beyond the demands of the immediate job.

Even if vocational education and training does, incidentally, develop underpinning knowledge and study skills as claimed by the Australian national training authority (Byrne, 2003: 38) there is no formal record of such achievements since vocational education and training's statements of achievement record only workplace skills assessed in a real or simulated workplace. One possibility would be to develop support materials for each training package which were a brief statement of content and context for adoption by those providers, institutes and systems that wanted to increase their role in short-cycle higher education and thus maximise their graduates' credit transfer to higher education. The Australian national training authority does not normally tolerate such variation, but it is accepting that some institutes are recording grades on statements of achievement for much the same purpose of maximising their students' transfer to higher education (ANTA, 2003b: 16), so the authority may consider a similar concession to maximise credit transfer.

Associate degrees

Another possibility would be to allow vocational education and training institutions to broaden their role formally in short-cycle higher education by offering associate degrees similar to the US 2-year colleges' associate degrees or the UK further education colleges' foundation degrees. While this option has some attractions, it raises three critical issues.

To play a strong role in student and credit transfer associate degrees would have to be conceptualised differently to vocational education and training's almost current exclusive engagement with competency based training. Associate degrees would also have to be accredited through higher education's quality assurance processes, or at least not through vocational education and training's current processes which atomise knowledge into modules and thus limits the extent to which such learning can be re-aggregated into the kinds and levels of knowledge taught in university courses (Stevenson, 2003). These differences may cause ruptures within vocational education and training.

Secondly, there may be some concern that by increasing vocational education and training's formal role in short-cycle higher education the sector would reduce its commitment to skills development. This is a real risk since the US 2-year colleges are much weaker in vocational training than Australia's vocational education and training sector. The UK experiment in foundation degrees is too recent to know whether the risk may be avoided in that country.

The third issue is: who pays? One understanding is that higher education is the Commonwealth's responsibility, whether it is short-cycle or full degree (the Commonwealth currently funds associate degrees, advanced diplomas and diplomas offered by higher education institutions) and whether it is offered by higher education institutions or vocational education and training institutions. Another understanding is that funding vocational education and training is mainly the responsibility of State and Territory governments, irrespective of whether the institutions are offering vocational training, further education, adult education or short-cycle higher education.

Common curriculum

We noted earlier that Texas 4-year institutions accept twice the proportion of students transferring from 2-year institutions than California, and that this is more than 3 times the rate in Australia. Transfer is so strong in Texas' at least partly because of the state's particularly strong and longstanding transfer provisions. The *Higher Education Coordinating Board Act* of 1965 required the development and implementation of a basic general academic core curriculum that, when taken at a public 2-year institution during the first two years of study, would freely transfer without loss of credit among all the public institutions of higher education in Texas. Subsequently transfer curricula were developed specifically for several disciplines and transfer curricula have been continually revised since then. The common core curriculum is supported by a common subject numbering system for the state ((Texas) Higher Education Coordinating Board, 2001: 10, 11).

Texas is not unique in legislating a common core curriculum for vocational education and training and higher education, and this is not the only tool available to legislators. A survey of the US states found widespread use of 7 tools for supporting transfer: state legislation articulating the transfer mission (30 states); statewide frameworks or networks supporting voluntary cooperation between institutions (40 states); state collection of data on transfer patterns (33 states); giving students incentives and rewards for transfer, such as financial aid or guaranteed admission (18 states); statewide articulation guides describing the requirements for subject and institutional articulation between two-year and four-year institutions (26 states); statewide common core curricula (23 states); and common subject numbering systems (8 states) (The Education Commission of the States (2001), quoted in Wellman, 2002: 15).

I do not advocate at this stage a compulsory core curriculum along the lines provided by the state governments of Texas and other states with strong transfer provisions. The option is presented to indicate the range of options available, and to note that at least some jurisdictions have considered it necessary to strengthen vocational education and training's role in short-cycle higher education.

Finally, assuming that Australia does wish to strengthen transfer from vocational education and training to higher education, it needs some way of monitoring performance.

Improving Australian data on student transfers

The figures we have considered have been of relative transfer rates since absolute transfer rates are likely to reflect factors specific to jurisdictions and institutions. But it is precisely such specific factors that are important in monitoring the performance of a system in providing a range of opportunities through diverse institutions. However, the data on rates of transfer of students from vocational education and training to higher education are problematic and to some extent controversial, and so the first issue one encounters is determining accurate transfer rates.

In its issues paper on the interface between higher education and vocational education and training for the *Crossroads* review of higher education the Commonwealth refers to data on non overseas students commencing bachelor degrees or below who were admitted on the basis of prior tafe study in Australia to conclude that 7% of higher education students transfer from vocational education and training (DEST, 2002b: para 22). Doughney (2000) and Wheelahan (2002) doubt the accuracy of these data.

Decisions on student admissions in higher education institutions are typically taken by specialist selection officers in November-January each cycle. Data on basis of admission is typically (but not in all institutions) collected as part of the enrolment process which is completed in February-March and authorised by program coordinators who are often not the same as selection officers. The statistical part of enrolment is of little interest and more of an annoyance to students and the staff who are enrolling them under considerable pressure of time and other circumstances. Many institutions do not spend much effort verifying data on basis of admission and other statistics of little direct interest to them.

The Department of Education, Science and Training also requires institutions to collect data on the highest qualification attained by non overseas students before they commenced a bachelor level program or below. In 2002 some 11.5% of such students had a tafe award as their highest qualification, 64% more than the proportion of students admitted on the basis of a tafe qualification. This is possible because a student may have a tafe diploma but be admitted on the basis of a secondary school certificate which is a lower qualification but more usually used for selection decisions.

Again, there are doubts about the accuracy of these data. But even if they were accurate Doughney (2000) and Wheelahan (2002) argue that they still understate the extent of student transfer from vocational education and training. This is because there are at least some students who have a higher education award, subsequently a tafe award and transfer to higher education but who would not report the tafe award because their higher education award is a higher qualification.

There are also intriguing differences in the time trends for these data. In 1994 some 5.5% of bachelor students were admitted on the basis of a tafe qualification. By 2001 this had increased by just over 27% to 7.0% of students admitted on the basis of a tafe qualification. In comparison, in 1994 some 7.0% students reported a tafe award as their highest qualification.

By 2001 this had increased to 11.5%, an increase of just over 64% almost than twice as much as the increase in the proportion of students admitted on the basis of a tafe qualification.

Again, there are a number of possible explanations for these different trends. But in the absence of further information they remain speculative and cast further doubt on the accuracy of the data. One may enjoin institutions continuously to improve the accuracy of their data collection, but even completely accurate snapshot data of this type would not give a good picture of student flows between sectors and institutions. This problem has been encountered in other jurisdictions. Some 33 US states specifically collect data on student transfers (The Education Commission of the States (2001), quoted in Wellman, 2002: 15), and many of these require institutions to report students' social security number. This not only helps to protect the integrity of the student support and reporting systems, but allows the state to calculate accurate retention and transfer rates taking into account all transfers between institutions and sectors, and other longitudinal data on student flows more useful for planning and policy analysis than the snapshot data available currently. Similar techniques have been recently recommended for Queensland (Gardiner, 2002: recommendation 8), Australian vocational education and training (ANTA, 2003b: 16), Aotearoa New Zealand (Ministry of Education Te Tāhuhu o te Mātauranga, 2001: 8), and Scotland (Scottish Parliament enterprise and lifelong learning committee, 2002: para 126).

Conclusion

Returning Australian vocational education and training to the general role it had over 30 years ago, and to the role the sector currently serves in Aotearoa New Zealand, the UK, many Canadian provinces and many US states would expand its role in providing short-cycle higher education. This would place pressures on the sector's policy, planning, funding, curriculum approval and quality systems to broaden their outlook from their current specialisation on developing skills for employment, to providing general education in broader range of skills and knowledge. It would also require significant changes of higher education. The differential rates of student transfer to Australian higher education institutions suggests that the current informal arrangements are not adequate to support systematic and equitable transfer from vocational education and training to higher education. Of the seven common mechanisms to support student transfer in the US three are considered for possible application in Australia. While legislating for a common curriculum would be unlikely to be considered necessary or desirable at this stage, the experience in at least some US states that systematic and equitable student transfer requires stronger mechanisms than curriculum mapping and expanding VET's role in short-cycle higher education.

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