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# inquiry into current and future skills needs

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# Submission to the Senate Employment, Workplace Relations and Education References Committee inquiry into current and future skills needs

This submission addresses just one issue, the implications of the transfer of students and credit from vocational education and training to higher education in meeting the nation's skills needs.

**General principles**

1 Australia, like all nations, chooses between having tertiary education institutions and sectors with specialised roles highly differentiated from each other, or institutions and sectors with more general roles more similar to each other.

2 Jurisdictions that establish specialised roles for institutions and sectors tend to establish a vocational education and training sector that specialises in developing vocational skills. Other jurisdictions ask vocational education and training institutions to adopt a second major role in addition to their skills development role, of providing the first 2 years of higher education, known generically internationally as short-cycle higher education (Furth, 1973).

3 There is no right answer. Highly specialised and differentiated institutions and sectors have the advantage of being able to concentrate on their distinctive roles, but there is a risk of 'dead end training' which can be characteristic of highly specialised vocational training. There is also a risk that some people and needs may fall between highly differentiated and segmented sectors. More general institutions and sectors are likely to provide a more comprehensive service, but there is a risk of overlap and duplication.

4 Even institutions and sectors specialising in skill development have some role in short-cycle higher education. This leads to tensions between the two roles, as has been recognised at least since 1973 when Dorotea Furth drew attention to it in a study for the OECD.

5 The choice is really one of degree, but having adopted a clear policy, a jurisdiction should establish safeguards to protect against likely problems arising from the particular approach it has adopted.

6 Since 1965 Australia, like much of continental Europe, has tended to establish a specialised skills development role for its vocational education and training sector. Before then the older central technical colleges, which were the origins of the Australian technology network universities amongst others, had a plural role offering highly respected and high level conceptually based qualifications accessed by qualified tradespersons such as diplomas of mechanical and electrical engineering. The central technical colleges proposed during 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, and by implication having vocational education and training specialise in its skills development role. This has been the broad policy ever since, 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'.

7 Minister Dawkins' merger of advanced education with universities to create the unified national system of higher education in 1988 created a transfer gap since the newly amalgamated institutions quickly unified around international university norms, withdrawing from sub baccalaureate qualifications such as diplomas and advanced diplomas (Jakupec and Roantree, 1993: 163) to redirect energy to postgraduate programs. This transfer gap has been exacerbated by vocational education and training being confined to lower level programs with limited knowledge development.

8 If institutions and sectors were highly specialised one would expect little student and credit transfer between institutions and sectors. 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.

9 In contrast Aotearoa New Zealand, the UK and many US states have given more emphasis to vocational education and training's role in providing short-cycle higher education. In these jurisdictions vocational education and training has an important role in broadening access to higher education, and success of such a policy is indicated by high rates of transfer of students and credit between institutions and sectors. On the other hand, US 2-year colleges do not provide the range of skilled and semi-skilled programs at trade and lower levels that are an important part of Australian vocational education and training's role. And the UK's further education colleges offer a fuller range of programs than Australian vocational education and training institutions, for example, in their major involvement in 6th form (year 12) programs.

**Australian transfer rates**

10 The data on rates of transfer of students from vocational education and training to higher education are problematic and to some extent controversial.

11 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.

12 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.

13 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.

14 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.

15 There are also intriguing differences in the time trends for these data. The table below shows that 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. Compare that with the same students' highest qualification attained before commencing their program. 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%.

TABLE 1: PROPORTION OF NON-OVERSEAS STUDENTS COMMENCING A COURSE AT BACHELOR LEVEL OR BELOW WHO WERE ADMITTED ON THE BASIS OF A TAFE QUALIFICATION, AND PROPORTION WHOSE HIGHEST PRIOR QUALIFICATION ATTAINED WAS A TAFE QUALIFICATION, 1994-2001

| Year | Admitted on the basis of a tafe qual | Highest qual a tafe qual |
|---|---|---|
| 1994 | 5.5% | 7.0% |
| 1995 | 6.5% | 8.0% |
| 1996 | 6.1% | 8.2% |
| 1997 | 7.3% | 8.4% |
| 1998 | 7.2% | 11.4% |
| 1999 | 7.6% | 11.0% |
| 2000 | 6.9% | 11.1% |
| 2001 | 7.0% | 11.5% |

*Source: DEST higher education student statistics, 1994-2001.*

16 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.

17 Different institutions report very different transfer rates. While some of these differences may be due to inconsistencies in data collection, the highly selective universities report consistently lower transfer rates than the moderately selective universities, and this is likely to reflect systematic selection decisions rather than idiosyncrasies in data collection. The table below shows that the group of 8 highly selective institutions admitted 2% of their bachelor students on the basis of a tafe qualification, while the other moderately selective institutions admitted four times as many students on the basis of tafe qualifications.

TABLE 2: PROPORTION OF UNDERGRADUATE COMMENCING STUDENTS AT THE GROUP OF 8 AUSTRALIAN HIGHLY SELECTIVE UNIVERSITIES AND OTHER MODERATELY SELECTIVE AUSTRALIAN UNIVERSITIES WHO WERE ADMITTED ON THE BASIS OF A TECHNICAL AND FURTHER EDUCATION QUALIFICATION, 2001

| Segment | Admitted on basis of tafe | Total bachelor commencers | % of enrolments 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 different transfer rates are now compared with differential transfer rates in 3 US states.

**Comparisons with 3 US states**

18 We noted above that different jurisdictions structure tertiary education differently, and that this has implications for student and credit transfer rates between sectors. In this section student transfer rates are considered for three US states: 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 their 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.

20 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. The policy implications of these differences are considered later in the submission.

21 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 California community college system (its vocational education and training sector) is therefore very important in providing access to higher education. However, Californian 2-year colleges do not offer the range of trade and semiskilled courses that Australian vocational education and training institutions provide: this kind of vocational education is provided in less prestigious suburbs and buildings by institutions which have a high participation by minority groups.

22 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 3: 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 enrolments | % of 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

23 Colorado is another of the wealthier US states, with the 8th highest per capita income, 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: 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 4: PROPORTION OF STUDENTS AT THE HIGHLY SELECTIVE 4-YEAR INSTITUTIONS AND THE NOT SO SELECTIVE 4-YEAR INSTITUTIONS WHO TRANSFERRED FROM A 2-YEAR INSTITUTIONS, COLORADO, 2001

| Institution | Number of transfers | Total u/grad enrolments | % of u/grad enrolments 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

24 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 5: PROPORTION OF STUDENTS AT THE HIGHLY SELECTIVE 4-YEAR INSTITUTIONS AND THE NOT SO SELECTIVE 4-YEAR INSTITUTIONS WHO TRANSFERRED FROM A 2-YEAR INSTITUTION, TEXAS, 2000

| Institution | Number of transfers | Total u/grad enrolments | % of u/grad enrolments 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.

25 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 degree-granting 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 6: STUDENTS TRANSFERRING FROM NON DEGREE-GRANTING TO PUBLIC DEGREE-GRANTING 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 |

26 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. From this one may conclude that the informal differences between institutions can be more important in student transfer rates than the formal distinctions between institutions. All the three US states we have considered here have strong transfer policies, and we may also infer that these have been important in the relatively broader access for students transferring even to the most selective institutions. Such transfer policies would affect higher education. They would also require changes in vocational education and training, to which we now turn.

**Difficulties with the Australian VET system**

27 Since the introduction of training packages from 1999 vocational education and training has been based on:

(a) competencies;

(b) in workplace skills;

(c) assessed in the (simulated) workplace.

28 As Wheelahan (2003) observed, this does not:

(a) develop the knowledge that underpins all skills, including workplace skills;

(b) develop skills other than workplace skills, such as learning how to learn or study skills;

(c) develop students' capacity for self-evaluation, critical reflection and career planning needed to manage a career beyond the demands of the immediate job.

29 Even if vocational education and training does, incidentally, develop underpinning knowledge and study skills 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. Higher education has inferred that vocational education and training students have acquired relevant knowledge and developed learning skills where they are familiar with the institute's programs, and this is normally recorded in a credit transfer, pathways or articulation agreement made between the institutions. Higher education is necessarily limited in extending credit transfer more generally if Australia is to match international standards in higher education, which since at least medieval times has been concerned mostly with knowledge and with cognitive and study and research skills.

30 There are several ways this could be addressed. One possibility would be to develop support materials for each training package which:

(a) included knowledge as well as competencies;

(b) included study skills as well as workplace skills; and

(c) accepted the classroom as well as the workplace as a legitimate site for assessment.

31 The support materials that currently accompany training packages are not endorsed as national requirements, and their use by providers is optional. It would be possible to develop support materials 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.

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

32 The inquiry is invited to consider 3 options for increasing the transfer of students and credit from vocational education and training to higher education:

(1) curriculum mapping;

(2) expanding VET's role, say into associate degrees; and

(3) core curriculum.

*Curriculum mapping*

33 The first option of mapping shared curriculum in vocational education and training and higher education comes naturally in Australia. Higher education institutions are currently doing this with vocational education and training providers with which they are establishing partnerships, pathways and credit transfer agreements. This is acceptable but labour intensive and patchy. Adopting support materials stating training packages' content and context as suggested in paragraph 28 would be one way of doing this more systematically.

*Associate degrees*

34 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.

35 To play a strong role in student and credit transfer associate degrees would have to be conceptualised differently to vocational education and training's 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. (Aotearoa New Zealand and Scotland, which are considered later in the submission, have the same difficulty.) These differences may cause ruptures within vocational education and training.

36 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 vocational training. 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.

37 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*

38 We noted in paragraph 21 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. A study of the effectiveness of Texas' statewide transfer policies found that 80% of credit points awarded by 2-year colleges were accepted for transfer, of which 70% were awarded for core rather than elective subjects. Most credit was denied for low grades and for remedial and developmental subjects. The study further found that transfer students who had completed the equivalent of 1 year's full time study in a 2-year institution achieved comparable grade point averages to students who took their whole undergraduate program in the 4-year institution ((Texas) Higher Education Coordinating Board (2001), quoted in Wellman, 2002: 36).

39 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).

40 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 this incidence of 7 tools for supporting transfer –

1 legislation: state law articulates the transfer mission (30 states);
2 cooperative agreements: statewide frameworks or networks support voluntary cooperation between institutions (40 states);
3 transfer data reporting: the state collects some type of data on transfer patterns (33 states);
4 students are given incentives and rewards for transfer, such as financial aid or guaranteed admission (18 states);
5 statewide articulation guides describe the requirements for subject and institutional articulation between two-year and four-year institutions (26 states);
6 statewide common core curricula (23 states);
7 common subject numbering systems (8 states).

(The Education Commission of the States (2001) 'Transfer and articulation policies', *State Notes,* (February), Denver, quoted in Wellman (2002: 15)).

41 This submission does 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.

**An Australian student identifier**

The second section of this submission noted problems with the Australian data on student transfer and this section considers how data might be improved.

42 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. We noted in paragraph 35 that 33 US states specifically collect data on student transfers, 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 useful for planning and policy analysis. Similar techniques have been recently recommended for Queensland, Aotearoa New Zealand and Scotland.

43 The Gardiner review of pathways articulation in Queensland recommended (2002: recommendation 8) –

> That a mechanism be developed, involving a unique student identifier, that allows a central record of a student's achievements to be maintained. The unique student identifier will need to be used in schools and vocational education and training providers (both public and private) for students between the ages of 15 and 19. Data on an individual student will need to be able to be maintained for a long period in order to provide a mechanism for accumulating and testifying to a student's achievements.

44 The Australian national training authority (2003b: 16) discusses a similar proposal –

> While the system does award a statement recognising attained competencies that don't add up to a full qualification, research indicates that people want a quality and user-friendly statement (recording their competencies and learning through life) that they can show to potential employers. This statement could take the form of a 'skills passport' or an electronic smart-card. This would be particularly useful for the increasing number of people who don't want full qualifications but small numbers of competencies related to current work challenges, as well as people whose circumstances lead them to drop in and out of structured learning. Many people choose a smorgasbord approach to learning (through self-assembly of smaller, shorter, targeted chunks). The frameworks now need to recognise this.

45 In its interim statement of tertiary education priorities 2002/2003 the Aotearoa New Zealand Ministry of Education Te Tāhuhu o te Mātauranga (2001: 8) said –

> Another critical priority for Government agencies will be the development of system-wide data integration and performance measures for inclusion in a monitoring and evaluation framework or 'scorecard'. This data will be collected in a number of forms, such as the Single Data Return, the National Student Index and the Tertiary Data Warehouse. It will be used to build a much more comprehensive picture of our entire tertiary system so that the TEC and the Ministry of Education can monitor and evaluate its performance. The ability of organisations within the tertiary system to attract and retain public money will increasingly depend on their performance.

46 And the Scottish Parliament enterprise and lifelong learning committee (2002: para 126) recommend the creation of a lifelong learning log for everyone in Scotland which would be linked to the Scottish qualifications authority individual candidate number and which over time would lead to the development of a learning smartcard which would record both credits used from the student's lifelong learning account and their learning achievements.

47 If the committee believes that better information is needed on student transfer rates it should consider recommending the establishment of an Australian student identifier. Gardiner considered pathways through the post-compulsory years of school to further education, training and labour market participation and so the identifier would have to allocated in at least the first post-compulsory year of education. However, in view of the desirability of collecting solid data on school retention, it would be sensible to allocate the identify at least at the start of secondary education. If the committee believes that data on tertiary education is sufficient, the Scottish recommendation to adopt the number allocated by State tertiary admissions centres would be convenient.

**Conclusion**

48 There are a number of options available to legislators and policy-makers to increase the transfer of students and credit from vocational education and training to higher education. However, this raises the prior question of what type of vocational education and training sector a jurisdiction wants, and by implication, the structure of the whole tertiary education system.

49 The older central technical colleges, which were the origins of the Australian technology network universities amongst others, had a plural role offering highly respected and high level conceptually based qualifications accessed by qualified tradespersons such as diplomas of mechanical and electrical engineering. The Commonwealth Government's acceptance of the recommendation of the Martin committee in 1965 resulted in these higher level programs being re-assigned to the newly established advanced education sector, leaving vocational education and training with a greater emphasis on skills development and reducing its role in providing short-cycle higher education. Vocational education and training in Australia remains heavily concentrated on skills development.

50 The relatively low transfer rates in Australia from vocational education and training to higher education therefore do not necessarily indicate any shortcoming of transfer arrangements: they may reflect simply the strong differentiation of the sectors. Transfer rates may be low because there is less need and demand for students to transfer from vocational education and training to higher education than in a jurisdiction that relies more heavily on vocational education and training to provide short-cycle higher education. However, the very great difference in transfer rates between highly selective and moderately selective universities in Australia, at least twice the differences in comparable rates in the 3 US states we have examined, indicates that there may be a problem in transfers from vocational education and training to the more selective universities.

51 If Australia retains vocational education and training's emphasis on skills development it should nevertheless develop mechanisms to ensure that the students who do want to transfer to higher education have fair opportunities to do so. However, the level of credit they receive for vocational education and training studies will be necessarily limited by the extent to which those studies are limited to competencies in workplace skills assessed in the (simulated) workplace.

52 On the other hand, the Commonwealth minister for Education, Science and Training has consistently advanced vocational education and training's role as an alternative and first stage to higher education (Nelson, 2002a, 2002b). This is consistent with developments in other developed English-speaking countries. However, an increased emphasis on vocational education and training's role in providing short-cycle higher education should be balanced by measures to protect against diluting the sector's role in skills development as has happened in many US states, and it should also protect against excessive duplication and overlap with the main higher education sector, as has happened in Aotearoa New Zealand and the UK.

**References**


AUSTRALIAN NATIONAL TRAINING AUTHORITY (ANTA) (2003a) *VET - what is it?*, http://www.anta.gov.au/vetWhat.asp

AUSTRALIAN NATIONAL TRAINING AUTHORITY (ANTA) (2003b) *Shaping our future: creating the national strategy for vocational education and training 2004 – 2010, a discussion starter for the next national strategy for vocational education and training 2004-2010*, http://www.anta.gov.au/images/publications/National_strategy-discussion_starter.pdf

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION (1998) *Factsheet 98-1, composition of higher education in California* http://www.cpec.ca.gov/FactSheets/FactSheet1998/fs98-1.asp

DAWKINS, J S (988), *Higher education: a policy statement,* Australian Government Publishing Service: Canberra.

DEPARTMENT OF EDUCATION, SCIENCE AND TRAINING (DEST) (2002a) *Higher education student statistics, 2001*, http://www.detya.gov.au/highered/statistics/students/01/tables/'2001table15'!A3

DEPARTMENT OF EDUCATION, SCIENCE AND TRAINING (DEST) (2002b), *Varieties of learning: the interface between higher education and vocational education and training,* http://www.detya.gov.au/crossroads/pubs.htm#vet

DOUGHNEY (NOW WHEELAHAN), LEESA (2000) 'Lifelong learning and student data collection in Australia', 9th Annual Vocational Education & Training Research Conference. Coffs Harbour. 4 July.

DOUGLASS, JOHN AUBREY (2000) 'Institutional differentiation and coordination: a case study of California', mimeo, Berkeley: Centre for Studies in Higher Education, University of California.

FURTH, DORTEA (1973) 'Short-cycle higher education: some basic considerations' in OECD *Short-cycle higher education: a search for identity,* OECD: Paris.

GARDINER, MARGARET (2002) *Review in Queensland of pathways articulation through the post-compulsory years of school to further education, training and labour market participation*, http://www.training.qld.gov.au/reports/gardner/index.htm

JACOBS, JIM (2002) Colorado Commission on Higher Education, *Transfer data,* personal communication (data file available from author).

JAKUPEC, V & ROANTREE, B (1993) 'Impact of the Martin report on technical and further education', in *The binary experiment for higher education: an Australian perspective*, eds L V Meek & G Harman, Department of Administrative, Higher and Adult Education Studies, University of New England: Armidale, pp 151 – 165.

KANGAN, MYER (chair) Australian Committee on Technical and Further Education (1974) TAFE in Australia. Report on needs in technical and further education, Canberra: Australian Government Publishing Service.

MARTIN L H (chair) Australian Universities Commission, Committee on the Future of Tertiary Education in Australia (1964), *Report,* Government Printer: Canberra.

MINISTRY OF EDUCATION TE TĀHUHU O TE MĀTAURANGA (2001*) Interim statement of tertiary education priorities (STEP) 2002-3*, http://www.minedu.govt.nz/index.cfm?layout=document&documentid=7366&indexid=1216&indexparentid=1028

NELSON, BRENDAN (2002a) 'Doorstop interview - Parliament House Canberra, 22nd January 2002, *Transcripts*, http://www.dest.gov.au/ministers/nelson/jan02/transcript_220102.htm

NELSON, BRENDAN (2002b) 'Interview with Leon Byner, Adelaide 5AA, 28 November 2002, *Transcripts*, http://www.dest.gov.au/ministers/nelson/nov02/transcipt_281102.htm

SCOTTISH PARLIAMENT ENTERPRISE AND LIFELONG LEARNING COMMITTEE (2002) *9th Report 2002: Final report on lifelong learning*, http://www.scottish.parliament.uk/official_report/cttee/enter-02/elr02-09-01.htm

TEXAS HIGHER EDUCATION COORDINATING BOARD (2001a) 'University profiles', *Report on the performance of Texas public universities*, http://www.thecb.state.tx.us/reports/pdf/0464.pdf

(TEXAS) HIGHER EDUCATION COORDINATING BOARD (2001b) *Transfer issues advisory committee report: identifying and closing the gaps*, http://www.thecb.state.tx.us/reports/pdf/0427.pdf.

TEXAS LEGISLATIVE COUNCIL (2001), *Texas Statutes, Education Code, subtitle B. State coordination of higher education. Chapter 61. Texas Higher Education Coordinating Board. Subchapter C. Powers and duties of board.* Sec. 61.051. Coordination of institutions of public higher education. http://www.capitol.state.tx.us/statutes/statutes.html, downloaded 3.12.01.

WELLMAN, JANE V (2002) 'State policy and community college-baccalaureate transfer', *National Center Report #02-6,* The National centre for Public Policy and Higher Education, http://www.highereducation.org/reports/transfer/transfer.shtml

WHEELAHAN, LEESA (2002) 'They do things differently', *Campus Review*, 29 October, 2002.

WHEELAHAN, LEESA (principal researcher), Dennis, Ned, Firth, John, Miller, Peter, Newton, Diane, Pascoe, Susan, and support from Brightman, Rod, (2002) *Recognition of prior learning policy and practice in Australia*, commissioned by the Australian Qualifications Framework Advisory Board, 25 October 2002.

WHEELAHAN, LEESA (2003) 'ANTA: transforming or tinkering?', *Campus Review*, 5 February, 2003.