

# What kind of access does VET provide to higher education for low SES students? Not a lot.

Leesa Wheelahan  
School of Education and Professional Studies  
Griffith University

email: [l.wheelahan@griffith.edu.au](mailto:l.wheelahan@griffith.edu.au)

ph: 07 3735 6843

mobile: 0401 146 024

On study leave until 1 July 2009, but contactable by email or mobile

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## ***Introduction***

The transition from elite to mass and near-universal systems of tertiary education in wealthy countries was accompanied by the development of education policies designed to facilitate pathways between sectors of tertiary education. The purpose of these reforms is twofold. The first is to increase the efficiency of education systems and to align educational outcomes with national economic priorities. Individuals need to be able to move between different types of qualifications and different occupational sectors with credit for prior learning, so reducing the time and costs to them and to governments. The second purpose is as an equity measure. Pathways are meant to provide opportunities for disadvantaged groups in society by mediating access to higher levels of education with appropriate credit for prior studies (OECD 1998; Raffe 1998; Young 2001).

Pathways in education must provide an educational ladder of opportunity if the efficiency objective is to be met and a social ladder of opportunity if the equity objective is to be met. These two purposes go together for those from disadvantaged backgrounds because access to education is one of the key ways in which occupational progression and social mobility can be achieved. However, these two objectives are not always aligned. We need to distinguish between measures that *deepen* participation in education by providing more opportunities and access for particular social groups already represented in education, and those that *widen* participation by including groups that are under-represented (Stuart 2002).

The efficiency and equity objectives of pathways are evident in the recent report of the Review of Australian Higher Education. The Review's final report said that many submissions to the Review panel emphasised the importance of pathways between vocational education and training (VET) and higher education in meeting labour market and industry needs, and that "Articulation from VET to higher education was seen as vital to increasing participation" (Bradley 2008: 212). The assumption that pathways can be an equity mechanism arises because VET is over-represented by students from low socio-economic backgrounds, whereas higher education is over-represented by students from high socio-economic backgrounds (Foley 2007; James 2007). However, the assumption that VET pathways act in this way has not been adequately tested. Indeed, the report of the Review sounded a note of caution in explaining that the socio-economic composition of VET students undertaking high-level diplomas and advanced diplomas is similar to higher education students (Bradley 2008: 43). This matters because diplomas and advanced diplomas are an important mechanism used by VET students to access higher education.

This paper will address three questions: the first question explores the extent to which VET diplomas and advanced diplomas provide students with an educational ladder of opportunity. The second question explores the extent to which VET pathways provide students from low socio-economic backgrounds with access to higher education and thus provides a social ladder of opportunity. The third question explores the institutional destinations of VET students from low socio-economic backgrounds in higher education. The paper concludes by examining the implications for policy. Overall, the findings are that pathways from VET to higher education provide access to universities, but not to the elite universities. It also finds that VET pathways are not

a mechanism for redressing socio-economic disadvantage in higher education more broadly, because the socio-economic profile of VET articulators is very similar to students already in higher education and within individual universities, with a few notable exceptions.

### *A note about data*

The primary data used in this paper are published and unpublished statistics on commencing domestic under-graduate students produced by the Department of Education, Employment and Workplace Relations (DEEWR 2008b). The analysis in this paper is of public universities; it does not include the two private universities and nor does it include other non-university higher education institutions. The paper makes more limited use of data on VET students produced by the National Centre for Vocational Education Research (NCVER) and data produced by some state tertiary admissions centres.

DEEWR collects data on the basis of admission of students to under-graduate programs in higher education, and on students' prior highest qualification. Students can be admitted on the basis of a completed senior school certificate; on the basis of prior complete or incomplete higher education studies; on the basis of prior complete or incomplete TAFE award studies (which is presumed to include awards of VET non-TAFE providers); as mature age special entry students; and on the basis of a number of other very small categories. These data vary in the extent to which it is accurate and its accuracy depends on how it is collected. In some states (such as South Australia), the tertiary admissions centre collects this data and we can have a high level of confidence in it. In other states it is left up to the university to collect it and its quality varies depending on the way in which the university collects it. This can be seen by examining the percentage of students admitted on the basis of the category 'other', which can be regarded as a catchall category of 'not elsewhere included'.<sup>1</sup> In 2007, some 11.5% of students were admitted by Australian public universities on the basis of the 'other' category, which was an improvement on the previous two years (almost 15% and just over 14% in 2005 and 2006 respectively). The states vary in the extent to which students are admitted on the basis of 'other'. In 2007, some 5% were admitted in Victoria (with very big variations between Victorian universities) and 5.5% were admitted on the basis of 'other' in South Australia (with almost no variation between South Australian universities). In contrast, 13.5% of students were admitted on the basis of 'other' in New South Wales, 15.8% in Queensland, 10.3% in Western Australia, almost 14% in the ACT, and 19.6% and 27.9% in Tasmania and the Northern Territory respectively.

Similar problems arise with reporting students' prior highest qualification. If the data are collected by tertiary admissions centres then it can be regarded as reliable because students have to provide evidence that they have these qualifications. If however, it is left to universities similar problems arise because universities are more or less rigorous in collecting these data. In some cases students are asked to self-report their

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<sup>1</sup> This is not the same as the 'unknown' category which is also one of the categories specified and which generally has very small percentages.

prior highest qualification and they don't always get this right (Doughney 2000; Wheelahan et al. 2001).

The result of problems in collecting data is that it tends to under-estimate the percentage of students in higher education who have prior experience in TAFE. It does so because not all TAFE students are admitted on the basis of their TAFE qualification, and it does not take into account students' multiple enrolments in both sectors because it reports only on prior highest completed qualification (Moodie 2005a, 2005b). Consequently, in analysing data on basis of admission it is important to keep an eye on the 'other' category and the 'mature-age special entry' category.

There are also problems with the data in determining and measuring students' socio-economic background. The socio-economic status of students is determined by applying the Australian Bureau of Statistics (ABS) 'Index of Education and Occupation'<sup>2</sup> to postcodes of students' home residence. Postcodes in the top 25% of the index are classified as high SES, those in the middle 50% as middle SES, and those in the last 25% as low SES (James *et al.* 2004: 13). The aim of equity policy is to ensure that this population profile is reflected in the composition of students in higher education. There is much debate about the efficacy of this measure. James *et al.* (2004: 19) argue that the post-code method has been adequate to now because it is a cost-effective mechanism for classification. They argue however, that it is a very blunt instrument and that it is "inadequate for measuring both the aggregate patterns and the potential educational disadvantage of individuals, especially for some universities" (James *et al.* 2004: 19). In other work James (2007) suggests that the current method of calculating SES under-estimates the percentage of students in the low SES category. James *et al.* (2004: 18-20) suggest that parental occupation and educational attainment be used as measures, but if agreement cannot be obtained on how to measure SES they argue that the same approach should be taken but based on smaller geographical areas such as census sub-districts or statistical local areas. Sinclair *et al.* (2003) found that data collected at the level of ABS collection district was a reliable measure of socio-economic status but also that the post-code method was reliable at the institutional level and so could be regarded as a cost-effective measure of socio-economic status at an aggregated level.

The conclusion from this discussion is that the data permit only a broad-brush analysis so that differences of a couple percentage points cannot be taken to represent substantive differences in results. Where we start to see differences of 4% to 5% or more we can cautiously begin to consider that these differences may reflect different outcomes. Notwithstanding the limitations of the data, they do permit an analysis to be undertaken, as long as it is remembered that it is a broad brush analysis. The data do show important differences by SES and that these are differentiated by institutional type.

Finally, it is necessary to explain why the percentage of low SES students reported in this paper differs slightly from that reported by DEST (2007b) in its *Institutional*

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<sup>2</sup> This is one of five indexes in the ABS 'Socio-Economic Indexes for Areas 2001' (SEIFA 2001). The other four indexes are the 'Index of Advantage/Disadvantage'; the 'Index of Disadvantage'; and the 'Index of Economic Resources' Source: ABS <http://www.abs.gov.au/Websitedbs/D3110124.NSF/24e5997b9bf2ef35ca2567fb00299c59/a17dc48d988ecf63ca256dad00005ea3!OpenDocument>, accessed 22 January 2009

*Student Equity Performance Data 2005*. DEST reported that 15.23% of commencing students in 2005 were from a low SES background. In this paper I report that 17.4% of commencing students in 2007 were from a low SES background. The main discussion in this paper looks at the profile of domestic commencing under-graduate students in 2007 and not 2005, although there are tables in the appendices which include statistics for 2005 and 2006. Table 17 shows the SES background of commencing under-graduate domestic students in 2005 – 2007, and it shows that in 2005 that there were 16.6% domestic under-graduate commencing students from a low SES background.

The difference for the percentages reported in 2005 arises because DEST was reporting on *all* domestic commencing students, including under-graduate and post-graduate students, whereas I am reporting on *under-graduate* domestic commencing students only. This can be demonstrated by comparing and contrasting different DEST reports on student higher education statistics. DEST (2007a) produced tables on equity performance in higher education from 2002 – 2006. In Table 3.1 DEST reported that in 2005 there were 256,664 commencing students and that of these 38,820 were from a low SES background, which is 15.12% (very close to the 15.23% reported in DEST's *Institutional Student Equity Performance Data 2005*). However, Table 3.1 does not differentiate between post-graduate and under-graduate commencing students. We can determine the relative proportions of under-graduate and post-graduate students by using other published DEST statistics (but not their SES background). In Table 6 in its *Students 2005 [full year] Selected Higher Education Statistics*, DEST (2006: Table 6) reported that there were 261,934 commencing domestic students in 2005 which includes both post-graduate and under-graduate students. The difference between the DEST (2006: Table 6) and the DEST (2007a: Table 3.1) is minor – just over 5000 or 2%.

I then derived the total number of under-graduate students *in public universities* (and not all higher education institutions) in 2005 from DEST's (2006: Table 6) *Students 2005 [full year] Selected Higher Education Statistics*, and compared this with the unpublished tables that I commissioned from DEEWR (2008b). In 2005, there were 177,058 commencing domestic under-graduate students (which includes sub-degree, enabling and non-award programs), which is derived from DEST (2006: Table 6). In the unpublished tables that I commissioned from DEEWR (2008b), there were 181,356 commencing domestic under-graduate students in 2005, a difference of just over 4000 or just over 2%, which is again minor. Of these students, 30,104 were from a low SES background, which is 16.6%.

### ***Do VET diplomas & advanced diplomas provide an educational ladder of opportunity?***

The prevailing view in government policy is that there is insufficient student transfer between VET and higher education. But what is an appropriate level? Moodie (2003: 2) argues that low transfer rates are a problem when the sectors of education are not so specialised and clearly differentiated and where VET has a “formal and significant role in providing short-cycle higher education”. However, low rates of transfer may not be a problem if the sectors are highly differentiated and designed to suit different purposes. In the case of the latter, low rates of transfer may indicate that that the

systems are working efficiently. Differentiated systems are effective if graduates enter relatively stable labour market destinations, and tracked systems are able to effectively allocate graduates to job vacancies and to careers that draw from the differentiated knowledge base in each sector (Moodie 2003).

While Australia has a more formally differentiated tertiary education system than similar Anglophone nations (Wheelahan and Moodie 2005), there is increasing overlap in what the sectors do 'in the middle'. Both offer vocational and general education, and both seek to prepare students for work. Distinctions remain so that VET has responsibility for apprenticeships, traineeships and second-chance education, while higher education has responsibility for research and research training. The 'blurring in the middle' is arising because each sector is preparing students for similar kinds of occupations. Karmel (2008) explains that diploma and advanced diploma graduates are better placed in the labour market compared to those with lower level VET qualifications, but that they face strong competition from people with degrees, often competing with them for similar jobs. The occupational destinations from each sector are less sharply differentiated, and the 'fit' between qualifications and occupations is quite loose, except for the trades and other regulated occupations (such as electrician and physician) (Karmel *et al.* 2008). This suggests that low rates of transfer in Australia should be regarded as problematic despite the formal differentiation of our tertiary education sectors.

In determining whether rates of transfer are appropriate we need to examine application rates by diploma and advanced diploma graduates as a percentage of all applicants to higher education in public universities, and whether those applicants who do apply are successful. The second point is addressed first.

Stanwick (2006: 2) argues that VET students studying diplomas and advanced diplomas cannot be regarded as homogenous and he distinguishes between three groups. The first are young people aged under 25 with year 12 qualifications who are using these qualifications either to seek employment or to go to university to study a degree. He says that the second group aged 25 and over are undertaking diplomas and advanced diplomas for employment related reasons. The final group are those aged over 25 "who have not completed school and who are 'catching' up on qualifications" (Stanwick 2006: 2).

Stanwick (2006: 17) reports that around 14% of commencing students in higher education in 2003 had a TAFE diploma or advanced diploma. Using Stanwick's (2006: Table 7, p. 17) table to break this down by age shows that 8.98% of commencing higher education students aged under 25 had a diploma or above, while 30.25% of commencing students aged 25 and over had a diploma or above. Clearly, older students are using diplomas as a stepping stone to higher education, but so too are younger students.

In 2003, just over 10% of student enrolments in VET were in diplomas and advanced diplomas (NCVER 2004: Table 18). Stanwick reports that around 32% of students aged under 25 in 2003 who completed a VET diploma or above went on to study a degree, as did around 14% of graduates aged over 25. In some fields of education such as banking and accountancy over 50% of VET diploma graduates aged under 25 go on to study at degree (Stanwick 2006: 31-32).

Another way of exploring this is to examine whether students with diplomas and advanced diplomas are able to gain access to university. Moodie (2004) examined proportions of applicants of different types who were offered a place in a university through the Queensland Tertiary Admissions Centre and the Victorian Tertiary Admissions Centre in 2003. Only Queensland and Victoria report this data on their website.<sup>3</sup> I have updated this in Table 1 to include the same data about 2008 applicants to university in Queensland and Victoria.

**Table 1: Applications, offer rate & enrolment rate for under-graduate programs in Queensland & Victoria in 2003 & 2008**

Applicant type	2003*						2008					
	Applicants		% offered		% enrolled		Applicants		% offered		% enrolled	
	Qld	Vic	Qld	Vic	Qld	Vic	Qld#	Vic^	Qld	Vic	Qld	Vic
School leaver	28,682	43,620	86	62	58	50	28175	51181	92	86	66	66
Completed HE studies	2,705	4,034	85	56	46	35	4261	3438	92	76	62	53
Incomplete HE studies	10,653	8,254	79	57	55	40	9454	8046	86	75	75	70
Completed TAFE studies	2,064	6,843	91	51	69	39	1862	8372	95	74	78	71
Incomplete TAFE studies	2,257	1,747	70	34	49	26	1128	1973	80	71	76	73
Other non school leaver qualified	5,496	587	75	48	53	36	6967	378	85	57	75	72
No qualification**	1,462	1,055	73	23	52	19	1310		52			63
TOTAL	53,319	66,140	83	58	56	45	51847	74698	90	82	69	67

\* Source: Moodie (2004: 2) \*\* Queensland did not report this for 2008

# Source: Queensland Tertiary Admissions Centre, 2007-2008 Table 18 Analysis of origin and level of highest entry qualification, accessed 23 January 2009

<http://www.qtac.edu.au/Statistics/2007-2008.htm> accessed 23 January 2009

^ Source: VTAC, Section A, Undergraduate Systems Data, A 2: Analysis of UG Applications, Offers, Enrolments and Deferments by Category, accessed 23 January 2009

[http://www.vtac.edu.au/pdf/stats/2007-2008/2007\\_2008\\_Section\\_A.pdf](http://www.vtac.edu.au/pdf/stats/2007-2008/2007_2008_Section_A.pdf)

Table 1 shows that far fewer applicants of all types were offered a place in Queensland and Victoria in 2003 compared to 2008, although this is more pronounced in Victoria. The rise in the offer rate is a reflection of the strength of the economy and labour market, which resulted in less demand for places in universities and a higher offer rate on the part of universities trying to fill their student load. DEEWR (2008a: 18) reports that unmet demand for places in universities was 5.8% in 2008, while it was around 15-16% in 2003 and 2004. The second is the difference between Victoria and Queensland, with Victoria offering fewer places to most types of applicants compared to Queensland. Moodie (2004: 2) argues that the higher offer and enrolment rates in Queensland reflect less pressure on places in that state compared to Victoria.

Table 1 also shows that applicants with completed TAFE diplomas and advanced diplomas are offered places in universities at a similar rate to other categories of applicants. In Queensland these students had a higher offer rate than school leavers in both 2003 and 2008 perhaps because of the way in which students with completed TAFE qualifications are handled in that state, which is also reflected in the difference in offers made to those with incomplete TAFE qualifications. In Victoria students with completed TAFE diplomas did not receive as many offers as did school leavers,

<sup>3</sup> DEEWR (2008a) published a report in 2008 on under-graduate applications, offers and acceptances, but the report does not distinguish between different types of non-school leaver categories.

but they received similar rates compared to those with completed and incomplete higher education qualifications. Even those with incomplete TAFE studies improved their relative position from 2003 to 2008 in both Victoria and Queensland which reflects less competition for higher education places.

It may be that access for VET graduates declines as a consequence of the worsening economy as this is usually associated with increasing demand for higher education places. Yet the overall percentage of students with VET diplomas and advanced diplomas in higher education declined from 2003 when unmet demand was high, to 2007 when unmet demand was much lower. In 2003 almost 14% of students commencing under-graduate higher education had a prior completed TAFE qualification, compared to just over 10% in 2007.<sup>4</sup> Nonetheless, it is important that this be monitored to ensure that VET graduates gain equitable access to higher education in universities.

The above analysis shows VET diplomas and advanced diplomas are a ladder of educational opportunity. Many diploma and advanced graduates use their qualification to gain access to higher education, particularly students aged under 25. Students with a diploma or advanced diploma are able to gain access to higher education, at least to the same extent as other non-school leaver applicants such as those with complete and incomplete higher education qualifications. This does not, however, provide any insights into how students experience this transition or the level of credit they receive in higher education for their prior VET studies. There is a wealth of evidence in the research that this is problematic (PhillipsKPA 2006). The focus in this paper is on *access* rather than the way the divide is navigated or the extent of credit that is provided.

While VET diplomas may be an educational ladder of opportunity, it is less clear that they contribute to the efficiency objective. It seems that the percentage with VET qualifications in higher education is declining. This may in part be a reflection of increased access by other types of applicants to higher education, but it may also be because student enrolments in VET diplomas and advanced diplomas have remained static or declined from 2003, and this is particularly marked in some states and some fields of education (Karmel 2008). VET diplomas and advanced diplomas can only act as a mechanism for transfer to higher education (and thereby contribute to the efficiency objective) if students undertake them. Karmel (2008: 10) argues that:

“The policy challenge is to ensure that the position of diplomas and advanced diplomas is consolidated, by building up articulation arrangements with degrees where appropriate, and by improving the attractiveness of diploma and advanced diploma graduates for employers.”

The other policy challenge is to ensure that diplomas and advanced diplomas can be a social ladder of opportunity, as well as an educational ladder of opportunity.

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<sup>4</sup> Source: DEEWR published and unpublished student statistics

## ***Do VET diplomas & advanced diplomas act as a social ladder of opportunity?***

VET diplomas and advanced diplomas can be a social ladder of opportunity by providing access to higher education only if students from disadvantaged backgrounds are able to access these qualifications. There has been extensive research on equity in VET that focuses on designated equity groups and other disadvantaged groups not included in these formally designated groups,<sup>5</sup> but there have not been many studies that focus on SES in VET.<sup>6</sup> This is unlike higher education where SES has been studied and problematised in great depth. The formal designation of equity groups in VET is different to higher education, and people from a low SES background are not formally included as an equity group. The formally designated equity groups in VET are women, people from Indigenous backgrounds, people with a disability, people from a non-English speaking background, and people living in remote and rural Australia (Dumbrell *et al.* 2004: 20).

SES is beginning to come into focus in VET research (Foley 2007; Teese and Walstab 2008). Foley (2007: 27) examined the socio-economic profile of VET students in 2001. He used the ABS Index of Economic Resources to calculate SES (Foley 2007: 17) rather than the Index of Education and Occupation which is used in higher education (James *et al.* 2004: 13). However, he uses the same level of aggregation as is used in higher education, which is to designate the top 25% of postcodes as high SES, the middle 50% as middle SES, and the bottom 25% as low SES. Foley (2007: 27) found that while 10.3% of students in VET were enrolled in diplomas and above, only 6.8% of students from low SES backgrounds were enrolled in these qualifications, compared to 10.8% of students from middle SES backgrounds and 13.9% of students from high SES backgrounds.

Table 2 is derived from Foley (2007: 27, Table 3) and it shows each socio-economic group's share of each VET qualification. This is also depicted in Figure 1. They show that students from middle SES groups are proportionately represented in all qualifications, but that low SES students are over represented in low level VET qualifications, while high SES students are over represented in high level VET qualifications. Of particular interest for this paper is that 19.4% of students enrolled in diplomas and above were from a low SES background, while 53.4% were from a middle SES background, and 27.2% from a high SES background were enrolled in these qualifications (Foley 2007: 27).

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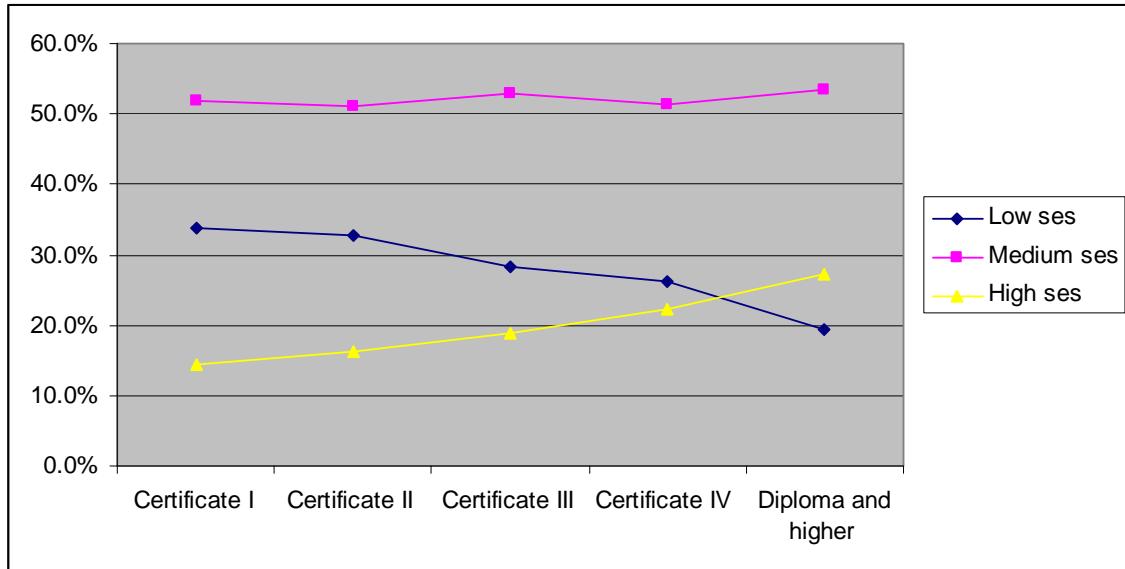
<sup>5</sup> Such as early school leavers, older workers, refugees, students in prisons etc.

<sup>6</sup> A notable recent exception in VET research is Teese and Walstab (2008), while SES was addressed in the NCVET (2002) submission to the Crossroads Review of Higher Education, and in a more general way in Considine *et al.* (2005), McIntyre *et al.* (2004), and Bowman *et al.* (2004).

**Table 2: Socio economic groups' share of each vocational education qualification level, 2001**

SES	Certificate I	Certificate II	Certificate III	Certificate IV	Diploma & higher	Total AQF qualifications
Low	33.8%	32.8%	28.2%	26.2%	19.4%	28.6%
Medium	51.9%	51.0%	53.0%	51.5%	53.4%	52.2%
High	14.3%	16.2%	18.8%	22.3%	27.2%	19.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: derived from Foley (2007: 27) Table 3: AQF level by socio-economic group, 2001



**Figure 1: Socio economic groups' share of each vocational education qualification level, 2001**

This socio-economic profile also characterises students who articulate from VET to higher education. Table 3 shows the basis of admission for commencing students entering under-graduate programs in public universities in 2007, and the SES background of students in each category. Overall, 17.4% of commencing under-graduate students were from a low SES background in 2007, while the corresponding percentages in 2005 and 2006 were 16.6% and 16.9% respectively.<sup>7</sup> As discussed earlier, the 16.6% of low SES students in 2005 is higher than the 15.2% of commencing students reported by DEST (2007b) for 2005, but DEST was reporting on all commencing domestic students and not just under-graduate students. The tables in this paper all refer to commencing domestic under-graduate students in public universities. Overall, Table 3 shows that low SES students are under-represented among commencing under-graduate students in public universities, but so too are students from a middle SES background even if this is not as pronounced as for low SES students, whereas students from a high SES background are over-represented.

<sup>7</sup> Source: unpublished DEEWR student statistics basis of admission & highest prior qualification for domestic commencing under-graduate students 2005 – 2007. Tables that include the percentages for 2005 and 2006 as well as 2007 are in the appendices.

**Table 3: Basis of admission of commencing under-graduate students in public universities by SES 2007**

<b>Basis for admission</b>	<b>% in category*</b>	<b>% low SES</b>	<b>% middle SES</b>	<b>% high SES</b>
Other basis	11.6	20.0	49.5	28.3
Prior HE	23.2	14.7	46.1	37.1
Prior school	46.8	16.2	47.1	35.6
Prior VET	10.1	20.0	51.8	27.0
Mature age special entry	5.5	27.0	52.1	20.0
<b>Total</b>	<b>97.1</b>	<b>17.4</b>	<b>48.0</b>	<b>33.1</b>

\*Doesn't equal 100% because very small categories were excluded

Source: unpublished DEEWR (2008b) student statistics basis of admission & highest prior qualification for domestic commencing under-graduate students 2005 – 2007.

Table 3 also shows that 10% of students were admitted on the basis of prior VET studies in 2007 and of these almost 20% came from a low SES background which is similar to just over 17% of all commencing under-graduate students, a difference of just over 2.5%. There is, however, a difference for students from a middle and high SES background with almost 4% more students from a middle SES background admitted on the basis of prior VET studies compared to all students, while there was just over 6% fewer students with prior VET studies from a high SES background compared to all students. The other category that is of interest is students who were admitted on the basis of mature age special entry. While the category is small with just over 5% of students admitted on this basis, the number of students from a low SES background is almost 10% higher than the 17.4% of low SES students admitted to all universities.

Table 4 shows the SES composition of commencing students by prior highest qualification. It shows that low SES students who had completed a bachelor degree prior to commencing their course in 2007 were the most under-represented of any category, while students from a high SES background are the most over-represented. It also shows that the percentage of students with a completed sub-degree program have a similar socio-economic profile compared to all commencing students, even though this category is very small. This is important though, because sub-degree programs in higher education are designed to be an access measure for students from disadvantaged backgrounds. Low SES students with a completed diploma or advanced diploma in VET are just over 4% higher than all students, while low SES students who report no prior educational attainment are just over 5% higher. It also shows that middle SES students are more likely to have a completed VET qualification compared to all students.

**Table 4: Prior highest qualification of commencing under-graduate students in public universities by SES 2007**

<b>Prior highest qualification</b>	<b>% in category*</b>	<b>% low SES</b>	<b>% middle SES</b>	<b>% high SES</b>
Completed Bachelor	7.2	12.9	43.2	41.4
Completed Sub-degree	3.8	19.5	51.9	26.8
Incomplete HE	15.3	16.3	47.8	34.5
Completed TAFE	10.2	21.1	52.5	25.3
Completed school	52.6	17.0	47.8	34.1
No prior educational attainment	5.7	22.8	46.9	26.8
<b>Total all students</b>	<b>94.6*</b>	<b>17.4</b>	<b>48.0</b>	<b>33.1</b>

\*Doesn't equal 100% because very small categories were excluded

The above analysis shows that using prior VET studies as a basis of admission provides similar levels of access for low SES students compared to all students, while it provides more access for middle SES. The mature-age special entry category provides low SES students with access to higher education, but this category is small. The profile for students admitted on the basis of 'other' is also similar to TAFE articulators. Institutional studies of at least one university has shown that these categories include students who have prior TAFE studies (Cao and Gabb 2006). Similarly, the percentage of low SES students who report having a completed VET diploma or advanced diploma is higher than all students, but this is relatively modest. The profile of VET articulators to under-graduate programs in public universities is similar to that of students enrolled in VET diplomas and advanced diplomas. It provides limited access to low SES students while it provides more access to middle SES students. This is not to under-estimate the importance of VET articulation for these students, but it seems that VET diplomas and advanced diplomas will not be an effective mechanism to redress socio-economic disadvantage in higher education until the socio-economic profile of students enrolled in VET diplomas and advanced diplomas is more representative of the population.

***What is the impact of institutional stratification in higher education on outcomes for TAFE articulators?***

VET diplomas and advanced diplomas provide access to higher education in public universities, but it is not equal access. Maclennan *et al.* (2000) distinguish between 'selecting' universities and 'recruiting' universities and this provides a useful framework for considering the way access to higher education is differentially distributed between different kinds of universities. Selecting universities are high demand, elite universities, while recruiting universities are lower demand and must actively compete with each other for students. Selecting universities are more likely to focus on school leavers with high tertiary entrance scores based on their senior school certificate results, while recruiting universities must draw from a wider and more diverse pool and market for prospective students and provide more flexible entry. This is demonstrated in Table 5, which compares the percentage of commencing under-graduate students from low, medium and SES groups in 2007 in the Group of Eight universities with all other public universities and the percentage in each basis of admission category. It shows that low and medium SES students are most under-represented in the Group of Eight universities, while high SES students were just over half of all enrolments, despite being only 25% of the population. It also shows that the

dominant category for basis of admission in the Group of Eight is the school leaver category, followed by those with prior higher education, with a negligible percentage admitted on the basis of prior VET studies and mature age special entry. If we express this as a ratio, the Group of Eight admit 23 school leavers for every one prior VET student, while the other universities admit just over three school leavers for every one prior VET student. Pathways from VET provide a modest educational ladder of opportunity, but not to the Group of Eight universities.

**Table 5: Commencing under-graduate students in Group of Eight universities & other universities by % SES & percentage admitted in each basis of admission category in 2007**

	%SES			Other	Prior HE	Prior school	Prior VET	Mature age
	Low	Medium	High					
Group of Eight	10.9	36.4	50.9	6.9	24.4	62.2	2.7	1.2
Other universities	19.5	51.9	27.2	13.1	22.8	41.7	12.6	6.9
<b>All universities</b>	<b>17.4</b>	<b>48.0</b>	<b>33.1</b>	<b>11.6</b>	<b>23.2</b>	<b>46.8</b>	<b>10.1</b>	<b>5.5</b>

There is considerable variation within the Group of Eight universities, as is shown in Table 6. The preponderance of high SES students in 2007 is most pronounced at the University of Sydney, ANU and the University of Melbourne. The percentage of students with prior VET studies admitted by the Group of Eight universities is negligible in most cases with the exception of Monash and perhaps UNSW.

**Table 6: Commencing under-graduate students within Group of Eight universities by % SES & percentage admitted in each basis of admission category in 2007**

University	%SES			Other	Prior HE	Prior school	Prior VET	Mature age
	Low	Medium	High					
UNSW	8.3	35.5	54.0	15.6	16.7	59.7	4.6	1.6
Sydney	6.4	30.0	61.6	7.2	23.2	66.1	0.9	1.6
Monash	14.1	41.2	43.3	3.1	26.6	58.5	6.3	0.0
Melbourne	10.2	33.3	55.1	8.0	25.6	64.7	1.6	0.2
Queensland	15.2	42.1	41.6	3.1	31.2	60.6	2.2	0.0
UWA	8.7	38.1	51.5	4.5	27.4	61.1	0.3	0.4
Adelaide	18.1	43.2	37.6	5.5	13.4	72.7	0.4	6.4
ANU	4.0	22.7	67.8	8.3	31.9	52.8	2.4	2.3
<b>Group of Eight</b>	<b>10.9</b>	<b>36.4</b>	<b>50.9</b>	<b>6.9</b>	<b>24.4</b>	<b>62.2</b>	<b>2.7</b>	<b>1.2</b>

There is, however, considerable differentiation within the rest of the university system. Table 7 shows the three non-Group of Eight universities that admit more than 50% of high SES students. They have a similar socio-economic composition as the Group of Eight, however these universities differ because they admit more students on the basis of prior VET studies and on the basis of 'other'.

**Table 7: Commencing under-graduate students at Macquarie, UTS & the University of Canberra by % SES & percentage admitted in each basis of admission category in 2007**

University	%SES			Other	Prior HE	Prior school	Prior VET	Mature age
	Low	Medium	High					
Macquarie	6.1	25.6	66.8	18.3	22.1	45.6	6.1	5.9
UTS	8.2	33.4	57.5	11.1	19.2	53.8	14.3	1.4
U of Canberra	3.8	27.3	68.2	19.7	23.1	37.4	13.0	4.8

Table 8 shows the socio-economic composition of university groups and the percentage admitted within each basis of admission category. The Australian Technology Network Universities (ATN) admit the fewest low SES students compared to the 1960s and 1970s universities and the post-1988 universities. It shows that the 1960s and 1970s universities share a similar profile to the post-1988 universities. All three groups other than the Group of Eight admit more students on the basis of prior TAFE studies, with the post-1988 universities admitting the most.

**Table 8: Commencing under-graduate students by university group by % SES & percentage admitted in each basis of admission in 2007**

University Group	%SES			Other	Prior HE	Prior school	Prior VET	Mature age
	Low	Medium	High					
Group of Eight	10.9	36.4	50.9	6.9	24.4	62.2	2.7	1.2
ATN	16.3	45.4	37.3	8.3	22.1	52.9	10.9	3.4
1960s & 1970s universities	21.1	52.3	25.4	9.1	25.3	43.2	10.6	9.4
Post 1988 universities	19.7	55.3	22.9	20.2	20.5	33.2	15.8	6.3
<b>All universities</b>	<b>17.4</b>	<b>48.0</b>	<b>33.1</b>	<b>11.6</b>	<b>23.2</b>	<b>46.8</b>	<b>10.1</b>	<b>5.5</b>

There is considerable variation within the 1960s and 1970s universities and the post-1988 universities, as is shown in Table 9. The key difference in both categories is the distinction between universities in capital cities and universities in regional areas.<sup>8</sup> Table 9 also shows the SES composition of all regional universities and the percentage admitted in each basis of admission category. The regional universities in all categories have the highest percentage of students from a low SES background, while the post-1988 universities in the capital cities admit the most students on the basis of prior VET studies. Table 10 shows the same information for universities that admitted 25% or more low SES students in 2007. With the exception of James Cook University and the University of South Australia in Table 10, the other universities recruit more students who are not school-leavers. Of the universities listed in Table 10, only two, Victoria University and the University of South Australia are in capital cities. However, South Australia overall has a higher percentage of low SES students attending public universities because it has a relatively larger proportion of low socio-economic post-codes than the other states. The overall percentage of students from low socio-economic backgrounds attending all public universities in South Australia in 2007 was 23.75. This is quite different to the case of Victoria University. The overall percentage of low SES students at Victorian public universities was 15.9% in 2007.

<sup>8</sup> The University of Tasmania and Charles Darwin University are counted as regional.

**Table 9: Commencing under-graduate students by % SES & % admitted in each basis of admission category by 1960s/1970s & post 1988 metro & regional universities in 2007**

University type	%SES			Other	Prior HE	Prior school	Prior VET	Mature age
	Low	Medium	High					
1960s & 1970s metro	16.3	51.3	31.4	8.9	25.2	49.3	9.9	4.5
1960s & 1970s regional universities	28.1	53.7	16.8	9.2	25.4	34.6	11.5	16.5
Post 1988 metro	15.1	50.5	32.6	12.3	18.1	42.1	19.7	5.8
1988 regional	24.4	60.2	13.2	28.2	23.0	24.3	11.9	6.9
All regional	26.1	57.2	14.9	23.3	25.5	26.4	11.6	7.7

**1960s & 1970s metro universities include:** Macquarie, Deakin, La Trobe, Griffith, Murdoch & Flinders. **1960s & 1970s regional universities include:** Newcastle, New England, Wollongong, James Cook, Tasmania. **Post 1988 metro universities include:** UWS, Swinburne, Victoria University, Edith Cowan, Canberra, Australian Catholic University. **Post 1988 regional universities include:** Charles Sturt, Southern Cross, Ballarat, Central Qld, Southern Qld, Sunshine Coast, Charles Darwin

**Table 10: Commencing under-graduate students that admit 25% or more low students by % SES & percentage admitted in each basis of admission category in 2007**

University	%SES			Other	Prior HE	Prior school	Prior VET	Mature age
	Low	Medium	High					
Newcastle	31.2	56.9	11.3	6.0	16.2	33.9	11.4	31.7
VU	25.2	48.7	22.0	10.8	24.4	39.9	16.5	6.1
CQU	40.7	51.1	5.6	26.3	22.5	31.2	7.1	8.4
James Cook	27.8	65.6	3.8	7.6	23.3	58.1	8.0	0.0
Southern Queensland	28.4	56.7	12.0	38.9	25.0	23.4	7.5	1.4
U of SA	27.3	47.2	24.8	5.8	14.4	59.8	9.2	7.3
Tasmania	34.9	38.5	24.9	19.6	25.1	32.0	10.9	7.2

The following set of tables examines the socio-economic composition of VET articulators. The tables compare this with the overall percentage of low SES students who were admitted in 2007, and with the percentage who were admitted on the basis of prior VET studies overall.

Table 11 shows that, with the exception of the Group of Eight which should be excluded because their percentage of VET articulators is negligible, the percentage of low SES VET articulators in the remaining groups of universities is similar to the percentage of low SES students in that group overall. This is the case even if we distinguish between metropolitan and rural universities within the 1960s and 1970s universities and the post-1988 universities as is shown in

Table 12. The socio-economic profile of VET articulators is very close to the socio-economic profile overall of each group (see Table 9).

**Table 11: University groups by overall low SES, % admitted on basis of prior VET & SES of those admitted on basis of prior VET**

University Group	% All low SES students	% admitted prior VET	% VET low SES	% VET medium SES	% VET high SES
Group of Eight	10.9	2.7	15.7	43.9	39.8
ATN	16.3	10.9	17.9	46.4	34.8
1960s & 1970s universities	21.1	10.6	23.6	52.8	22.6
Post 1988 universities	19.7	15.8	19.0	54.5	24.9
<b>All universities</b>	<b>17.4</b>	<b>10.1</b>	<b>20.0</b>	<b>51.8</b>	<b>27.0</b>

**Table 12: Metro & Regional 1960s/1970s & post-1988 universities: overall low SES, % admitted on basis of prior VET & SES of those admitted on basis of prior VET**

University type	% All low SES students	% admitted prior VET	% VET low SES	% VET medium SES	% VET high SES
1960s & 1970s metro	16.3	9.9	19.1	53.2	26.7
1960s & 1970s regional universities	28.1	11.5	29.1	52.4	17.5
Post 1988 metro	15.1	19.7	16.9	51.1	30.6
1988 regional	24.4	11.9	22.6	60.1	15.3
All regional	26.1	11.6	25.5	56.6	16.3
<b>All universities</b>	<b>17.4</b>	<b>10.1</b>	<b>20.0</b>	<b>51.8</b>	<b>27.0</b>

The dual-sector universities require particular examination because one of the rationales for dual-sector universities is that they can support student articulation from VET to higher education because they comprise TAFE and higher education divisions within the one institution. Just over 17% of students were admitted to dual-sector universities on the basis of prior VET studies as is shown in Table 13, and this is a considerable improvement from 2000, when the dual-sectors reported admitting only 9% on the basis of prior VET studies (Moodie 2007: 3). The percentage of students admitted on the basis of prior VET reported by the University of Ballarat stands out for being so low, but this seems to be a problem with reporting. The University's Vice-Chancellor Professor Battersby (2008: 6-7) reported that around one in six or almost 17% of students in higher education at the University had either studied at TAFE or had a prior VET qualification, and this brings it into line with the other dual-sectors.<sup>9</sup>

<sup>9</sup> Moodie (2009: 69) reports that Professor Battersby explained in a personal communication to him that students self-report their basis of admission at enrolment, and TAFE articulators within the university say that their VET qualification is a university qualification because they attend the University of Ballarat, not Ballarat TAFE.

**Table 13: Dual-sector universities: overall low SES,  
% admitted on basis of prior VET & SES of those admitted on basis of prior VET in 2007**

Dual-sector University	% All low SES students	% admitted prior VET	% VET low SES	% VET medium SES	% VET high SES
RMIT	17.0	18.8	17.1	42.0	39.3
Swinburne	11.5	27.0	11.2	42.3	45.9
Ballarat	22.1	0.6	37.5	62.5	0.0
Victoria University	25.2	16.5	28.4	47.3	20.9
Charles Darwin	12.2	14.7	22.9	60.6	12.9
<b>All dual-sectors</b>	<b>18.2</b>	<b>17.4</b>	<b>19.2</b>	<b>45.6</b>	<b>33.2</b>

Overall, there is virtually no difference between the percentage of low SES students at the dual-sectors and the percentage of low SES VET articulators, with the exception of Charles Darwin University which has a difference of around 10%. VET pathways at RMIT and Swinburne do nothing to alter the socio-economic composition of those universities and consequently they may contribute to deepening participation of existing social groups, but they are not contributing to widening participation.

Table 14 identifies those universities that have at least a 5% difference between their percentage of total low SES students and their percentage of low SES VET articulators. Monash is notable as a Group of Eight university and Curtin as an ATN university, because both go against the trend of the other universities in their group. Monash does so because it admits VET articulators even if the percentage is relatively modest, and low SES VET articulators have more opportunity to enter the University. Curtin does so because while its overall percentage of low SES students is similar to other ATN universities, the percentage of low SES VET articulators is higher. James Cook is notable because it goes in the other direction. While it admits a relatively high percentage of low SES students overall, this declines for low SES VET articulators to the benefit of the medium SES group of VET articulators. Overall James Cook had 66% of medium SES students in 2007, but just over 72% of medium SES VET articulators, a gap of almost 7%.

**Table 14: Universities with a difference of more than 5%  
between overall low SES & % of low SES VET articulators in 2007**

University	% All low SES students	% admitted prior VET	% VET low SES	% VET medium SES	% VET high SES
Monash	14.1	6.3	21.6	53.5	23.9
Curtin	15.4	8.1	21.1	53.9	23.5
Flinders	23.7	6.6	32.6	51.1	15.9
Tasmania	34.9	10.9	42.5	37.5	17.5
Charles Darwin	12.2	14.7	22.9	60.6	12.9
James Cook	27.8	8.0	22.4	72.4	2.6

The above analysis shows that VET pathways do not provide an educational ladder of opportunity to the elite universities. They provide a modest ladder of educational opportunity to remaining universities, with the exception of the dual-sector universities which have dramatically increased the percentage of VET articulators as part of their commencing domestic under-graduate students. This has not been serendipitous; the dual-sector universities have, since 2000, begun to emphasise their

dual-sector character and the opportunities that are open to students through pathways (Wheelahan 2009: 39). Their experience shows that there is potential at the remaining universities to increase educational pathways for VET articulators, but that this requires a conscious policy commitment to do so.

The analysis in this section is in line with the conclusion of the previous section, which found that the percentage of low SES VET articulators reflects the percentage of low SES VET students studying diplomas and advanced diplomas. This section also finds that on the whole, the percentage of low SES VET articulators is similar to the percentage of low SES students overall within university groups and within individual universities. There are a limited number of exceptions to this and further research should be undertaken to find out what is different at those universities that have a higher percentage of low SES VET articulators compared to their overall percentage of low SES students. Such research would be important in informing tertiary education policy but also individual institutional practices.

## ***Discussion***

VET pathways provide a modest educational pathway to higher education as a whole and this contributes to meeting efficiency objectives. Those VET articulators who apply to universities do find places, at least at the same level as other categories of non-school applicants. However, there may be scope for improvement. Increasing articulation between VET and higher education requires consideration of:

- institutional strategies that universities can implement to increase the percentage of VET articulators. The experience of the dual-sectors shows that there is potential to improve these pathways and increase opportunities for students to undertake them.
- increasing the number of VET students who undertake diplomas and advanced diplomas. The Council of Australian Governments has set a target to double the number of diplomas and advanced diplomas between 2009 and 2010 (Bradley 2008: 181), but this has not been sufficiently thought through. The role and place of the diploma and advanced diploma is becoming increasingly ambiguous, and this will be accentuated with the growth of associate degrees and degrees in TAFE.
- how to increase aspirations by VET students to articulate to higher education. Stanwick's (2006) research shows that many VET students, particularly younger students, use diplomas and advanced diplomas to enter higher education. I return to the question of aspirations later in this section.

VET pathways consequently play a modest role in increasing the efficiency of tertiary education in Australia,<sup>10</sup> but they have a long way to go before they contribute to meeting equity and social justice objectives. In a recent OECD report on tertiary education Santiago *et al.* (2008: 14) define equity in tertiary education this way:

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<sup>10</sup> Discussion of the 'efficiency' objective is not complete without a discussion of the extent to which credit is provided for prior studies, but this is outside the scope of this paper.

“Equitable tertiary systems are those that ensure that access to, participation in and outcomes of tertiary education are based only on individuals’ innate ability and study effort. They ensure that the achievement of educational potential at tertiary level is not the result of personal and social circumstances, including of factors such as socio-economic status, gender, ethnic origin, immigrant status, place of residence, age, or disability.”

They explain that:

“...*equity in tertiary education* deals not only with equity *within* tertiary systems but also with mechanisms of tertiary education policy to *redress* the effects of past unequal educational opportunities and those which seek to grant *equal opportunities in the labour market* upon completion of tertiary education. A general equity objective in tertiary education is to achieve a student population that closely reflects the composition of society as a whole.” (Santiago *et al.* 2008: 14 emphasis in original)

To achieve this objective requires equitable access to the elite universities for VET articulators. It also requires more equitable access by low SES students to VET diplomas and advanced diplomas and to higher education more broadly. The structuring of relations between the tertiary education sectors and the pathways that are available contribute to the stratification of higher education in two ways: first, because they provide access to lower status universities rather than the elite universities. The problem lies with the elite universities because they decide who they admit. Second, VET pathways do not redress socio-economic disadvantage in higher education more broadly. Instead, they deepen the participation in tertiary education of existing groups because the socio-economic composition of VET articulators reflects the socio-economic composition of university groups and individual universities. In part, this is attributable to the socio-economic profile of VET advanced diploma and diploma students which is similar to higher education overall, but university groups and individual universities also have a role to play in redressing these inequalities.

The relationship between the socio-economic composition of: VET diploma and advanced diploma students; VET articulators to higher education; and, higher education overall, shows that tertiary education needs to be considered as a coherent whole, rather than the sectoral differentiation that occurs at present. The recommendations in the Review of Higher Education are thus timely and will, if implemented, help make possible a focus on this issue. The Review recommends greater consistency in the governance, funding and regulatory arrangements for both sectors and an enhanced role for the NCVER to encompass research, analysis and data collection for both sectors.

However, while the review proposes a national tertiary education system, it focuses on higher level VET qualifications, and consideration of equity in upper level VET and higher education requires a focus on pathways *to* these destinations. Equity research in higher education has explored access between school and university for disadvantaged students, but it has not done so for VET. Around 70% of VET diploma and advanced diploma students aged under 25 reported Year 12 as their prior highest qualification, while just over 47% of those aged 25 and over reported a VET certificate III as their prior highest qualification showing that these qualifications

provide entry to diplomas and advanced diplomas (Stanwick 2006: 20). The latter is particularly significant because just over 28% of certificate III students come from a low SES background (see Table 2).

Low socio-economic status in VET needs to be problematised in the same way as it has been in higher education. Low SES is not an equity group in VET, but VET needs to take account of the complexity *within* the sector as well as the relationship between the sectors. Research by Bett *et al.* (2008: Table 6) found that school students from low and medium SES groups in Melbourne's western suburbs had high levels of aspirations to attend university (68% and 71% respectively), even if this was lower than high SES students (81%). Low and medium SES students are thus expressing a strong desire to go to university. Low SES students were also less confident that they would go to university than high SES students, and in fact, they were less likely to do so with many going to TAFE. Teese *et al.* (2006: 20) report that almost 62% of high SES 2004 Victorian Year 12 graduates went to university in 2005 compared to 31% of low SES graduates.<sup>11</sup> In contrast, just over 14% of high SES graduates entered a certificate IV or higher in TAFE, compared to almost 22% of low SES graduates (the report does not differentiate between certificate IV, diploma and advanced diploma students). Just over 19% of low SES graduates went to apprenticeships and traineeships or entry level TAFE programs, compared to just over 8% of high SES students. What happens to these students in TAFE, and how does this shape their aspirations for higher education? We don't know.

## ***Conclusion***

This paper has identified two problems for tertiary education policy in Australia. The first problem is that VET pathways do not provide access to the elite universities. This problem is well-known, but this does not lessen its importance. The second problem is that VET pathways do not provide sufficient access to higher education for students from low SES backgrounds. This is in part because high level VET programs are under-represented by students from low SES backgrounds, and this is not as well known because low SES students are not a designated equity group in VET. The issues here seem to be similar to those in higher education. VET pathways do not, on the whole, widen participation of low SES groups in higher education; instead they contribute to deepening participation of existing groups in higher education. Access and equity needs to be considered within a coherent tertiary education policy framework rather than as sectorally differentiated issues. Further research is needed to support the development of equity strategies that provide low SES students with access to high level VET qualifications, and through these qualifications, with access to higher education.

## ***Acknowledgement***

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<sup>11</sup> The report distinguishes SES by quartiles, not by the top 25%, middle 50%, and bottom 25%

## *Additional Tables*

### **Basis of admission**

The tables presented here are derived from unpublished DEEWR (2008b) student statistics on basis of admission and highest prior qualification for domestic commencing under-graduate students 2005 – 2007. The percentages for basis of admission in the tables presented in the paper above do not add up to 100% because small categories were excluded. Two categories were omitted because of their small numbers. They were ‘professional qualifications’ and ‘unknown’. Table 15 reproduces basis of admission data with the inclusion of these two categories. The basis of admission categories with the excluded categories and the percentages in each are:

**Table 15: Basis of admission of commencing under-graduate students in public universities 2005-2007**

<b>Category of admission</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
'Other' basis	15.0	14.3	11.6
Prior HE	25.7	23.0	23.2
Prior completed school	42.5	44.7	46.8
Prior VET	10.2	10.0	10.1
Mature age special entry	5.7	5.7	5.5
Professional qualifications	1.0	0.9	0.9
Unknown	0.0	1.3	2.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### **Prior highest qualification**

The percentages for ‘prior highest qualification’ also do not add up to 100% in the paper because small categories were excluded. The categories that were excluded were: ‘Completed post-graduate course’, ‘Incomplete TAFE course’, ‘Incomplete secondary education’, and ‘Completed other qualification or certificate of statement of attainment’. The ‘prior highest qualification’ categories with the excluded categories in and the percentages in each are shown in Table 16:

**Table 16: Prior highest qualification of commencing under-graduate students in public universities 2005-2007**

<b>Prior highest qualification categories</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Completed Postgraduate course	2.0	1.8	1.7
Completed Bachelor course	8.3	7.3	7.2
Completed Sub-degree course	3.9	3.4	3.8
Incomplete higher education course	17.8	15.7	15.3
Incomplete TAFE course	0.0	0.0	0.0
Completed TAFE Award course	9.4	9.9	10.2
Incomplete secondary education	0.0	0.0	0.0
Completed secondary education	46.3	49.3	52.6
Completed other qualification or certificate of attainment or competence	1.8	2.2	2.2
No prior educational attainment	10.4	9.0	5.7
Unknown	0.1	1.4	1.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Socio-Economic Status

The 'unknown' category was excluded from socio-economic status in the tables in the paper. Table 17 shows low, medium and high SES for domestic under-graduate commencing students from 2005-2007 including the 'unknown' category

**Table 17: % SES of domestic under-graduate commencing students 2005-2007 including 'unknown'**

SES	2005	2006	2007
% Low SES	16.6	16.9	17.4
% Medium SES	47.3	47.6	48.0
% High SES	33.9	33.7	33.1
% Unknown	2.3	1.8	1.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Table 18: Overall basis of admission of commencing under-graduate students in public universities by SES 2005-2007**

Public universities by basis admission	% admitted on basis of category			% low SES in category			% medium SES in category			% high SES in category		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
'Other basis	15.0	14.3	11.6	17.2	18.0	20.0	46.6	48.8	49.5	32.5	30.5	28.3
Prior HE	25.7	23.0	23.2	14.7	14.9	14.7	45.6	45.4	46.1	37.1	37.1	37.1
Prior school	42.5	44.7	46.8	15.7	15.6	16.2	46.7	46.8	47.1	36.0	36.2	35.6
Prior VET	10.2	10.0	10.1	19.0	19.6	20.0	50.7	50.6	51.8	28.3	28.5	27.0
Mature age & special	5.7	5.7	5.5	24.9	26.7	27.0	52.7	51.4	52.1	20.9	20.4	20.0
<b>Total*</b>	<b>99.0</b>	<b>97.8</b>	<b>97.1</b>	<b>16.6</b>	<b>16.9</b>	<b>17.4</b>	<b>47.3</b>	<b>47.6</b>	<b>48.0</b>	<b>33.9</b>	<b>33.7</b>	<b>33.1</b>

\* Does not add up to 100% because the 'professional qualifications' and 'unknown' categories are excluded

**Table 19: Overall prior highest qualification of commencing under-graduate students in public universities by SES 2005-2007**

Total	% admitted in each category*			% low SES in category			% medium SES in category			% high SES in category		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Completed Bachelor	8.3	7.3	7.2	12.7	12.7	12.9	42.3	43.2	43.2	42.3	41.3	41.4
Completed Sub-degree	3.9	3.4	3.8	18.0	19.1	19.5	51.9	50.9	51.9	27.8	28.3	26.8
Incomplete HE	17.8	15.7	15.3	15.5	16.0	16.3	47.4	47.2	47.8	35.6	35.5	34.5
Completed TAFE	9.4	9.9	10.2	20.5	21.0	21.1	50.1	51.5	52.5	27.9	26.4	25.3
Completed school	46.3	49.3	52.6	16.6	16.7	17.0	46.4	47.3	47.8	35.6	34.9	34.1
No prior educational attainment	10.4	9.0	5.7	18.3	18.9	22.8	52.6	48.2	46.9	22.8	27.2	26.8
<b>Total*</b>	<b>96.2</b>	<b>94.7</b>	<b>94.6</b>	<b>16.6</b>	<b>16.9</b>	<b>17.4</b>	<b>47.3</b>	<b>47.6</b>	<b>48.0</b>	<b>33.9</b>	<b>33.7</b>	<b>33.1</b>

\* Does not add up to 100% because the 'Completed post-graduate course', 'Incomplete TAFE course', 'Incomplete secondary education', and 'Completed other qualification or certificate of statement of attainment' categories are excluded

**Table 20: Domestic under-graduate commencing students at all public universities by overall % SES 2005-2007**

University	Low			Medium			High		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
Charles Sturt	20.8	20.9	21.1	54.0	55.4	55.7	23.4	21.8	20.8
Macquarie	5.1	5.7	6.1	26.1	25.0	25.6	68.2	68.1	66.8
Southern Cross	18.8	20.0	22.1	67.2	67.9	64.6	13.1	11.6	12.2
UNE	22.3	22.5	24.2	52.5	53.4	54.4	22.2	21.7	18.9
UNSW	6.5	6.5	8.3	31.8	32.9	35.5	59.1	57.3	54.0
Newcastle	30.6	31.8	31.2	57.0	56.2	56.9	11.9	11.4	11.3
University of Sydney	6.7	6.8	6.4	30.6	31.4	30.0	61.1	59.9	61.6
UTS	9.0	9.1	8.2	32.5	33.8	33.4	57.0	56.4	57.5
UWS	15.1	14.9	15.5	55.2	55.1	56.1	27.4	28.7	26.8
Wollongong	17.5	16.1	17.2	54.2	54.9	55.6	27.3	28.4	26.7
Deakin	13.8	14.9	14.1	50.2	49.4	50.6	34.8	34.8	34.3
La Trobe	19.7	19.1	18.9	50.7	50.5	52.4	28.9	29.5	27.9
Monash	13.8	14.1	14.1	40.8	41.3	41.2	43.7	42.9	43.3
RMIT	15.8	16.2	17.0	40.4	41.0	41.5	43.1	41.2	39.8
Swinburne	11.4	12.9	11.5	40.7	41.6	42.3	46.8	44.9	45.0
U of Melbourne	9.7	9.2	10.2	33.2	33.6	33.3	55.6	55.3	55.1
Ballarat	21.3	19.3	22.1	71.0	73.4	70.0	6.6	6.1	6.4
VU	21.1	21.8	25.2	41.6	43.0	48.7	20.2	20.6	22.0
CQU	36.3	37.4	40.7	54.3	53.5	51.1	6.7	6.8	5.6
Griffith	15.0	15.9	15.3	67.3	68.0	67.6	17.3	15.6	16.4
James Cook	26.6	27.3	27.8	66.6	65.6	65.6	3.8	4.0	3.8
QUT	12.6	13.1	14.2	50.6	50.5	50.6	36.2	35.7	34.5
U of Queensland	16.4	15.3	15.2	40.8	41.2	42.1	41.8	42.2	41.6
Southern Queensland	22.0	27.1	28.4	50.5	56.4	56.7	11.6	12.4	12.0
Sunshine Coast	13.8	13.1	13.2	81.3	79.8	81.5	4.7	5.7	5.0
Curtin	13.8	14.9	15.4	48.3	47.3	48.4	36.5	36.3	34.7
Edith Cowan	14.4	13.8	14.7	56.3	58.7	59.2	27.8	26.1	24.1
Murdoch	23.2	24.0	24.8	44.4	44.5	45.5	30.2	29.6	27.9

University	Low			Medium			High		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
U of WA	8.0	8.0	8.7	36.3	35.9	38.1	54.0	54.6	51.5
Flinders	22.1	22.1	23.7	50.3	50.0	49.4	26.8	27.2	25.7
U of Adelaide	17.7	15.9	18.1	42.3	42.7	43.2	39.1	40.4	37.6
U of SA	27.7	26.7	27.3	47.8	48.4	47.2	24.1	24.4	24.8
Tasmania	37.3	35.5	34.9	36.3	37.5	38.5	25.3	25.1	24.9
Charles Darwin	8.1	11.2	12.2	70.3	68.4	66.9	16.8	16.8	17.4
ANU	4.1	4.5	4.0	24.2	23.2	22.7	65.0	66.5	67.8
U of Canberra	3.2	5.1	3.8	25.4	26.4	27.3	68.2	67.8	68.2
Australian Catholic U	11.7	11.9	11.9	46.8	47.1	48.0	41.0	40.1	39.3
<b>Public universities</b>	<b>16.6</b>	<b>16.9</b>	<b>17.4</b>	<b>47.3</b>	<b>47.6</b>	<b>48.0</b>	<b>33.9</b>	<b>33.7</b>	<b>33.1</b>

**Table 21: Overall SES 2005-2007 domestic under-graduate commencing students by state**

State	Low			Medium			High		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
NSW overall SES	15.2	15.4	16.0	45.9	46.2	46.5	37.2	36.9	36.0
Vic overall SES	15.1	15.6	15.9	43.6	44.1	45.2	38.3	37.5	37.3
Qld overall SES	23.7	22.6	22.6	55.0	60.2	59.7	19.1	16.2	16.7
Overall WA SES	14.7	14.9	15.5	47.7	47.7	48.9	36.0	35.9	33.9
Overall SA SES	23.7	22.8	23.8	47.0	47.4	46.7	28.7	29.1	28.6
Overall ACT SES	3.6	4.8	3.9	24.9	24.8	24.9	66.7	67.2	68.0
Tasmania	37.3	35.5	34.9	36.3	37.5	38.5	25.3	25.1	24.9
Northern Territory	8.1	11.2	12.2	70.3	68.4	66.9	16.8	16.8	17.4
Catholics	11.7	11.9	11.9	46.8	47.1	48.0	41.0	40.1	39.3
<b>Public universities</b>	<b>16.6</b>	<b>16.9</b>	<b>17.4</b>	<b>47.3</b>	<b>47.6</b>	<b>48.0</b>	<b>33.9</b>	<b>33.7</b>	<b>33.1</b>

**Table 22: Basis of admission for domestic under-graduate commencing students at all public universities 2005-2007**

University	'Other' basis			Prior HE			Prior school			Prior VET			Mature age & Special		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Charles Sturt	23.8	24.3	26.5	32.1	24.6	24.8	14.9	14.5	11.9	21.0	24.7	20.1	6.2	8.9	7.3
Macquarie	22.3	21.5	18.3	22.8	20.4	22.1	45.1	43.4	45.6	5.2	6.9	6.1	4.5	5.6	5.9
Southern Cross	11.0	27.6	26.7	24.8	23.8	23.3	19.6	19.2	20.7	12.1	10.7	12.0	31.2	17.7	15.5
UNE	26.7	5.8	4.0	40.7	43.3	46.6	8.8	9.6	9.7	15.4	14.5	13.5	3.0	21.7	20.8
UNSW	12.0	11.2	15.6	20.4	17.5	16.7	59.4	61.2	59.7	4.6	4.6	4.6	3.5	3.8	1.6
Newcastle	7.7	6.7	6.0	15.2	16.9	16.2	31.4	30.6	33.9	7.0	9.0	11.4	36.9	36.0	31.7
U of Sydney	10.6	8.8	7.2	19.6	17.4	23.2	66.6	70.9	66.1	1.2	1.0	0.9	2.0	1.4	1.6
UTS	5.3	12.0	11.1	21.8	18.3	19.2	56.2	52.9	53.8	15.4	14.7	14.3	1.2	1.8	1.4
UWS	8.5	15.6	11.5	19.4	15.3	9.4	41.7	39.7	44.6	23.4	21.0	26.2	6.9	5.7	6.0
Wollongong	7.8	7.5	9.8	29.9	24.3	26.9	31.3	51.1	45.1	11.8	11.4	13.5	19.3	5.0	3.7
Deakin	9.8	7.6	4.9	26.8	22.3	23.2	48.8	54.6	55.6	12.6	12.4	13.6	2.0	3.1	2.5
La Trobe	2.6	1.6	1.7	30.9	23.0	24.1	55.3	57.0	58.0	10.6	13.1	13.5	0.2	0.4	0.8
Monash	5.8	4.3	3.1	27.9	28.0	26.6	56.7	56.7	58.5	8.0	8.1	6.3	0.1	0.3	0.0
RMIT	0.2	0.1	0.2	23.9	20.1	19.6	54.4	57.8	60.3	21.0	21.1	18.8	0.5	0.7	0.9
Swinburne	9.1	4.8	3.1	19.3	19.0	20.8	46.2	49.1	45.9	24.9	25.8	27.0	0.3	0.1	0.0
U of Melbourne	10.2	9.5	8.0	21.1	23.0	25.6	66.4	65.2	64.7	2.1	1.7	1.6	0.3	0.1	0.2
Ballarat	10.2	13.6	21.0	9.8	11.3	12.3	64.5	65.6	61.1	3.2	0.0	0.6	11.1	8.2	3.6
VU	12.5	16.9	10.8	37.8	39.2	24.4	25.5	24.4	39.9	13.9	10.0	16.5	7.1	6.1	6.1
CQU	23.0	26.5	26.3	23.6	22.4	22.5	35.0	32.3	31.2	9.5	8.1	7.1	5.8	6.7	8.4
Griffith	17.7	15.4	15.8	27.5	24.1	27.1	46.0	49.4	46.0	7.3	8.0	7.4	0.5	0.6	0.5
James Cook	0.8	2.6	7.6	24.4	19.7	23.3	57.5	65.6	58.1	7.3	6.3	8.0	0.2	0.0	0.0
QUT	13.7	11.5	10.9	37.6	31.4	29.7	37.7	44.8	48.6	10.3	8.4	7.6	0.0	0.0	0.0
U of Qld	9.5	12.2	3.1	38.0	25.6	31.2	49.2	57.5	60.6	2.5	2.3	2.2	0.0	0.0	0.0
Southern Qld	35.0	37.7	38.9	30.8	22.2	25.0	22.7	24.7	23.4	6.8	9.3	7.5	2.7	2.9	1.4
Sunshine Coast	22.6	27.1	21.7	14.3	11.3	13.8	54.8	49.5	44.7	5.9	7.3	5.9	0.4	0.5	0.3
Curtin	73.5	73.8	11.3	19.3	16.5	22.0	3.9	3.9	46.5	3.3	3.3	8.1	0.1	0.3	8.9
Edith Cowan	13.7	16.6	17.4	19.8	18.4	18.8	30.9	32.9	37.5	15.9	13.9	12.9	18.7	15.0	11.8
Murdoch	2.7	3.2	3.7	33.0	26.9	28.8	37.7	36.5	34.6	15.5	12.3	10.8	11.1	18.8	20.2

University	'Other' basis			Prior HE			Prior school			Prior VET			Mature age & Special		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
U of WA	4.9	4.8	4.5	30.3	31.7	27.4	64.0	61.0	61.1	0.3	0.2	0.3	0.6	0.3	0.4
Flinders	4.8	5.0	5.2	28.2	27.0	26.7	46.1	48.4	47.4	7.5	7.0	6.6	12.7	10.6	8.7
U of Adelaide	6.8	6.7	5.5	15.5	14.5	13.4	69.3	70.0	72.7	1.0	0.6	0.4	7.5	7.0	6.4
U of SA	4.0	6.5	5.8	16.5	16.5	14.4	57.1	57.7	59.8	11.6	7.2	9.2	9.3	9.2	7.3
Tasmania	22.5	17.3	19.6	28.3	31.0	25.1	31.4	31.1	32.0	11.5	10.4	10.9	6.1	8.8	7.2
Charles Darwin	36.0	29.1	27.9	29.0	26.7	28.5	14.8	21.4	19.3	19.3	14.9	14.7	0.9	6.2	7.5
ANU	7.7	10.2	8.3	36.0	36.7	31.9	52.3	47.3	52.8	1.8	1.4	2.4	2.3	1.8	2.3
U of Canberra	25.7	22.5	19.7	26.4	18.6	23.1	32.5	39.0	37.4	10.8	13.4	13.0	4.3	5.1	4.8
Aus Catholic U	59.4	7.3	10.9	10.6	29.2	25.2	25.9	46.2	45.6	4.0	14.5	16.1	0.0	1.7	1.6
<b>Public universities</b>	<b>15.0</b>	<b>14.3</b>	<b>11.6</b>	<b>25.7</b>	<b>23.0</b>	<b>23.2</b>	<b>42.5</b>	<b>44.7</b>	<b>46.8</b>	<b>10.2</b>	<b>10.0</b>	<b>10.1</b>	<b>5.7</b>	<b>5.7</b>	<b>5.5</b>

**Table 23: Dual-sector universities: overall low SES, % admitted on basis of prior VET & SES of those admitted on basis of prior VET**

Total	% All students low SES			% admitted prior VET			% VET low SES			% VET medium SES			% VET high SES		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
RMIT	15.8	16.2	17.0	21.0	21.1	18.8	15.3	16.6	17.1	39.8	39.2	42.0	44.1	43.2	39.3
Swinburne	11.4	12.9	11.5	24.9	25.8	27.0	12.0	12.3	11.2	38.9	39.0	42.3	48.7	48.3	45.9
Ballarat	21.3	19.3	22.1	3.2	0.0	0.6	17.5	--	37.5	82.5	--	62.5	0.0	--	0.0
Victoria Univ	21.1	21.8	25.2	13.9	10.0	16.5	25.0	26.1	28.4	43.1	44.6	47.3	19.4	18.9	20.9
Charles Darwin	8.1	11.2	12.2	19.3	14.9	14.7	13.1	18.0	22.9	67.2	60.7	60.6	15.3	17.2	12.9
<b>Dual-sectors total</b>	<b>15.9</b>	<b>16.9</b>	<b>18.2</b>	<b>18.1</b>	<b>16.4</b>	<b>17.4</b>	<b>16.3</b>	<b>17.2</b>	<b>19.2</b>	<b>44.7</b>	<b>42.2</b>	<b>45.6</b>	<b>35.4</b>	<b>37.8</b>	<b>33.2</b>

**Table 24: All universities: overall low SES, % admitted on basis of prior VET & SES of those admitted on basis of prior VET 2005 - 2007**

University	% all students low SES			% admitted Prior VET			% VET low SES			% VET medium SES			% VET high SES		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Charles Sturt	20.8	20.9	21.1	21.0	24.7	20.1	21.2	20.0	20.4	57.3	56.4	58.1	19.9	21.8	20.0
Macquarie	5.1	5.7	6.1	5.2	6.9	6.1	6.9	6.3	8.8	40.6	29.0	33.1	52.1	64.0	56.6
Southern Cross	18.8	20.0	22.1	12.1	10.7	12.0	23.7	23.4	24.0	65.1	66.9	64.1	10.1	9.5	10.4
UNE	22.3	22.5	24.2	15.4	14.5	13.5	15.6	21.4	24.7	50.0	53.1	52.4	33.1	24.3	21.7
UNSW	6.5	6.5	8.3	4.6	4.6	4.6	8.4	7.8	9.1	39.9	39.2	40.0	48.7	51.4	50.9
Newcastle	30.6	31.8	31.2	7.0	9.0	11.4	30.4	31.8	30.8	53.9	54.6	55.9	15.4	13.3	13.3
U of Sydney	6.7	6.8	6.4	1.2	1.0	0.9	4.0	11.9	15.1	38.0	31.0	31.5	58.0	56.0	52.1
UTS	9.0	9.1	8.2	15.4	14.7	14.3	10.5	10.3	10.6	34.3	37.4	40.2	53.6	51.1	48.4
UWS	15.1	14.9	15.5	23.4	21.0	26.2	17.3	18.2	18.5	54.7	56.0	57.6	25.3	24.4	22.8
Wollongong	17.5	16.1	17.2	11.8	11.4	13.5	22.2	19.4	20.1	52.3	52.2	51.5	25.0	28.2	28.0
Deakin	13.8	14.9	14.1	12.6	12.4	13.6	16.0	15.7	15.5	52.9	51.1	51.2	30.2	32.6	32.3
La Trobe	19.7	19.1	18.9	10.6	13.1	13.5	21.2	22.9	21.2	51.0	48.6	50.8	27.5	27.4	26.7
Monash	13.8	14.1	14.1	8.0	8.1	6.3	21.3	21.8	21.6	50.6	50.6	53.5	27.2	26.3	23.9
RMIT	15.8	16.2	17.0	21.0	21.1	18.8	15.3	16.6	17.1	39.8	39.2	42.0	44.1	43.2	39.3
Swinburne	11.4	12.9	11.5	24.9	25.8	27.0	12.0	12.3	11.2	38.9	39.0	42.3	48.7	48.3	45.9
U of Melbourne	9.7	9.2	10.2	2.1	1.7	1.6	13.8	15.7	10.6	41.5	41.6	37.2	44.7	42.7	51.1
Ballarat	21.3	19.3	22.1	3.2	0.0	0.6	17.5	--	37.5	82.5	--	62.5	0.0	--	0.0
VU	21.1	21.8	25.2	13.9	10.0	16.5	25.0	26.1	28.4	43.1	44.6	47.3	19.4	18.9	20.9
CQU	36.3	37.4	40.7	9.5	8.1	7.1	24.8	32.1	32.5	58.2	56.4	57.1	11.8	8.3	6.6
Griffith	15.0	15.9	15.3	7.3	8.0	7.4	14.3	18.4	16.4	67.7	67.1	69.5	18.1	14.4	14.0
James Cook	26.6	27.3	27.8	7.3	6.3	8.0	26.7	25.0	22.4	67.6	67.9	72.4	3.2	3.3	2.6
QUT	12.6	13.1	14.2	10.3	8.4	7.6	13.8	14.7	15.8	51.1	53.3	50.5	34.9	31.8	33.4
U of Qld	16.4	15.3	15.2	2.5	2.3	2.2	24.1	20.7	19.4	36.7	39.7	38.2	37.7	38.0	42.4
Southern Qld	22.0	27.1	28.4	6.8	9.3	7.5	20.9	29.7	25.3	54.0	56.5	59.1	12.3	12.1	12.6
Sunshine Coast	13.8	13.1	13.2	5.9	7.3	5.9	7.5	14.4	11.2	84.0	77.6	80.0	8.5	5.6	8.8
Curtin	13.8	14.9	15.4	3.3	3.3	8.1	18.6	20.3	21.1	52.3	57.5	53.9	29.2	21.7	23.5
Edith Cowan	14.4	13.8	14.7	15.9	13.9	12.9	15.7	16.2	17.3	57.5	60.5	58.7	25.3	21.8	21.7

University	% all students low SES			% admitted Prior VET			% VET low SES			% VET medium SES			% VET high SES		
Murdoch	23.2	24.0	24.8	15.5	12.3	10.8	26.5	24.9	28.6	48.4	46.7	52.4	22.8	26.4	17.6
U of WA	8.0	8.0	8.7	0.3	0.2	0.3	12.5	0.0	9.1	50.0	66.7	63.6	25.0	33.3	27.3
Flinders	22.1	22.1	23.7	7.5	7.0	6.6	28.3	27.6	32.6	51.8	47.6	51.1	17.9	24.4	15.9
U of Adelaide	17.7	15.9	18.1	1.0	0.6	0.4	9.7	35.0	13.3	48.4	30.0	53.3	38.7	35.0	33.3
U of SA	27.7	26.7	27.3	11.6	7.2	9.2	32.0	27.3	29.3	47.8	51.4	50.2	19.7	21.1	20.3
Tasmania	37.3	35.5	34.9	11.5	10.4	10.9	44.3	45.9	42.5	35.6	36.6	37.5	19.1	15.9	17.5
Charles Darwin	8.1	11.2	12.2	19.3	14.9	14.7	13.1	18.0	22.9	67.2	60.7	60.6	15.3	17.2	12.9
ANU	4.1	4.5	4.0	1.8	1.4	2.4	0.0	6.9	0.0	16.7	27.6	17.0	80.6	62.1	81.4
U of Canberra	3.2	5.1	3.8	10.8	13.4	13.0	1.2	2.8	1.7	23.6	27.3	26.7	74.4	69.9	71.0
Aust Catholic U	11.7	11.9	11.9	4.0	14.5	16.1	16.8	9.7	9.9	56.3	44.7	45.9	26.9	44.9	43.7
<b>Public universities</b>	<b>16.6</b>	<b>16.9</b>	<b>17.4</b>	<b>10.2</b>	<b>10.0</b>	<b>10.1</b>	<b>19.0</b>	<b>19.6</b>	<b>20.0</b>	<b>50.7</b>	<b>50.6</b>	<b>51.8</b>	<b>28.3</b>	<b>28.5</b>	<b>27.0</b>

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