

# **Australia's Youth: Reality and Risk**

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**Young peoples' participation in higher education**

Simon Marginson

Centre for the Study of Higher Education  
University of Melbourne

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# Summary

Simon Marginson  
Centre for the Study of Higher Education  
University of Melbourne

- Enrolments in higher education grew throughout the last decade, though the rate of growth fluctuated. In 1996 the rate of participation of 17-19 year olds (18.0 per cent) and the overall participation of 17-64 year olds (5.4 per cent) were both at the highest ever levels. The overwhelming majority of 17-19 year olds were enrolled full-time and all but a handful were enrolled in bachelor degrees, with diploma courses playing a minor part.
- Among 17-19 year olds, female participation at 21.3 per cent outstrips male participation at 14.9 per cent. Male participation rises in later years. In the 25-29 year age group it is just below the level of female participation, and a substantial majority of the students in higher degrees are male.
- Participation varies considerably between the States/Territories, being highest in the ACT, Victoria and SA, and lowest in Tasmania and NSW.
- Indigenous students are still under-represented, and there may have been a regression in the socio-economic composition of the student body. The area needs closer monitoring by the Commonwealth, and the potential effects of changes to HECS and fees also need to be watched carefully.

The role of TAFE courses in university selection is poorly developed, especially for young people, but a range of formal and informal links are emerging. These need to be made more visible in official reporting, eg. combined course structures, and cross-sectoral enrolments.

## **Provision of higher education**

Higher education institutions primarily offer award courses at the level of bachelor degrees and above, requiring three years full-time study or its equivalent. Some sub-bachelor diploma and associate diploma courses are offered in higher education, but the proportion of enrolments is small. However, several institutions include a separate TAFE division. Most higher education institutions offer some non-award courses. Both research and teaching are conducted at virtually all institutions.

There were 658,835 students enrolled in all Australian higher education institutions at the DEETYA census date of 31 March 1997 (DEETYA, 1997b). The number of higher education institutions fell sharply during the 1988-1993 period when most institutions from the former college of advanced education sector were encouraged to merge with other institutions to form comprehensive universities. In 1997 the Commonwealth Government provided operating funds for 40 higher education institutions in Australia, all but four of which were designated universities, with an average size of 16,471 students. This group included two private institutions, Avondale College and Marcus Oldham Farm Management College with 740 students between them. The largest university (Monash) enrolled 39,648 students and there were nine other with more than 25,000 students, all of which were situated on the Eastern seaboard. A number of unfunded small private higher education institutions were also in operation, including the Bond University in Queensland and Notre Dame Australia in Western Australia. Data concerning these institutions are not collected by the Commonwealth.

Higher education institutions are autonomous bodies mostly self-governed by councils or senates. In the last decade these institutions have been affected by Commonwealth policies designed to produce a more modernised, efficient, equitable and effective system able to contribute as required to economic development and internationalisation, in the context of a competitive global economy. Enrolments increased by 67.3 per cent in the decade from 1987 to 1997, and the Commonwealth has encouraged institutions to open broader pathways from TAFE to higher education, maintain adequate access to school leavers, increase participation of students from regions under-represented in the higher education system, and improve access to and completion rates of indigenous students. Various Government programs, including the work of the Commonwealth Committee for Quality Assurance, have set out to strengthen industry-based courses and graduate employability, to improve accountability to students and other stakeholders, to increase the focus on applied research in strategic areas, and to encourage new information and communications technologies in teaching, learning and course delivery.

Institutions have also been expected to expand their non-government incomes, an objective that has been successfully achieved. Whereas in 1986 more than 87 per cent of all institutional income came from government sources (Dawkins, 1987), by 1995 the public share was 58 per cent. The primary source of funding remained the Commonwealth, which provided 57 per cent of total income, mostly under the Higher Education Funding Act (55 per cent). State Governments provided 1 per cent. Another 12 per cent was from students under the Higher Education Contribution Scheme (HECS); 12 per cent in other fees and charges, including 6 per cent from international students; 4 per cent from research and contracts; and 4 per cent from institutional investments (DEETYA, 1997a). Institutions receive HECS funding in two forms: either directly as up-front fees or indirectly as deferred payments, ultimately collected through the tax system and allocated to institutions in the year of study through the HECS trust fund.

In the 1996 Commonwealth Budget it was announced the level of charges under HECS would be increased and differentiated by three categories of course, according to cost and graduate incomes. It was decided to permit institutions to enrol fee-paying domestic students in undergraduate courses, with fees determined by the institutions, up to a level of 25 per cent of students in any one course; and to fund institutions at the level of the minimum HECS for enrolments above planned load (Vanstone, 1996). The likely effects of these changes in combination are twofold. First, to increase the proportion of income from non-government sources without necessarily reducing total enrolments. Second, to introduce direct fee charging in some of the most sought-after courses and institutions, with the potential for access stratified on the basis of private capacity to pay, and greater differentials of income, resources and status between the different individual universities (Marginson, 1997a; Marginson 1997b). Some universities that intend to introduce undergraduate fees have also designed scholarship schemes that will allow selected students' fees to be waived on the basis of academic merit.

## **Changes in enrolments**

While enrolments in higher education have continue to grow throughout the last decade, the rate of growth has fluctuated. Each year from 1987 to 1990 the number of students in the 15-19 year age group increased by 9 per cent or more, sustaining subsequent growth in higher age brackets. As Table 1 shows, overall growth peaked in the two years 1990 and 1991 when the total number of students rose by 21.2 per cent. In 1992 a slowdown in the growth in funded load, coupled with the effects of previous over-enrolments, led to a 3.4 per cent decline in commencements. The number of 15-19 year olds fell by 4.0 per cent and total enrolment growth, though sustained by pipeline effects, slowed to 4.6 per cent.

Two years later it had fallen to 1.7 per cent. The rate of growth in 15-19 year olds was low or negative from 1992 to 1995, while there was higher than average growth in students aged over 25 years.

**Table 1 Students in higher education, 1987 and 1990-1997**

	1987	1990	1991	1992	1993	1994	1995	1996	1997 p.
<b>15-19 years</b>									
female	65,741	90,589	96,617	93,427	90,794	91,958	93,997	98,639	n.a.
male	56,099	71,254	74,820	71,186	68,660	69,757	70,683	73,151	n.a.
persons	121,840	161,843	171,437	164,613	159,454	161,715	164,680	171,790	n.a.
<b>all students</b>									
female	197,350	255,655	284,862	298,812	307,631	313,417	325,357	344,222	358,659
male	196,384	229,420	249,676	260,553	267,986	271,979	278,820	289,872	300,176
persons	393,734	485,075	534,538	559,365	575,617	585,396	604,177	634,094	658,835
<b>15-19 share</b>									
female (%)	33.3	35.4	33.9	31.3	29.5	29.3	28.9	28.7	n.a.
male (%)	28.6	31.1	30.0	27.3	25.6	25.6	25.4	25.2	n.a.
persons (%)	30.9	33.4	32.1	29.4	27.7	27.6	27.3	27.1	n.a.

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics 1996*, and *Selected Higher Education Statistics 1997, Preliminary*, Canberra, AGPS.

p. means data are preliminary. n.a. means data not available. 15-19 years share refers to the number of enrolled 15-19 year olds as a proportion of enrolled students from all age groups.

After a surge in postgraduate enrolments in the early 1990s there was a renewed policy emphasis on school leaver entry, and by 1996 the rate of growth of 15-19 year olds had reached 4.3 per cent, slightly below the overall growth rate due to pipeline from previous mature age entry. Preliminary data indicate a further growth of 24,741 (3.9 per cent) in 15-19 year olds in 1997. However, the rate of growth in commencing students (2.0 per cent) was at the lowest level since 1992. Table 1 summarises these trends. There is a more detailed breakdown of the 17-19 year age group in Table A1 in the Appendix.

### Female and male enrolments

The long term increase in the female share of enrolments was hastened by the entry of nurse education into higher education in the 1980s. The female share exceeded the male share for the first time in 1987 and then plateaued at 53-54 per

cent. The proportion of women was highest among young school leaver entrants, whose enrolment patterns were directly affected by the pattern of relatively high female retention to Year 12 of school. This relative growth in young female enrolments was partly offset by the decline in 15-19 year olds as a proportion of commencing students, from 43.9 per cent in 1990 to 36.2 per cent in 1996. The male share of enrolments was higher in older age groups, especially in the 25 to 29 age group, when the number of full-time males exceeded that of females. In 1996, 60.7 per cent of all males in higher education were 20 years or more, compared to 54.3 per cent of females.

**Table 2 Female share of enrolments in higher education, by age group, 1987 and 1990-1997**

	1987	1990	1991	1992	1993	1994	1995	1996	1997 p.
	%	%	%	%	%	%	%	%	%
15-19 years	54.0	56.0	56.4	56.8	56.9	56.9	57.1	57.4	n.a.
20-24 years	46.4	49.1	49.9	50.7	51.4	51.7	51.9	52.3	n.a.
25-29 years	44.1	47.7	48.7	48.8	48.8	49.2	50.1	50.8	n.a.
30 years plus	52.7	54.9	55.5	55.1	54.4	54.4	54.7	55.2	n.a.
all students	50.1	52.7	53.3	53.4	53.4	53.5	53.9	54.3	54.4

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics 1996*, and *Selected Higher Education Statistics 1997, Preliminary*, Canberra, AGPS.

p. means data are preliminary. n.a. means data not available. Female share refers to female enrolments as a proportion of enrolled persons.

Men continued to outnumber women in higher degrees in 1996, especially in doctoral degrees where enrolments were 41.1 per cent female in composition, and in course work masters programs in Business and related disciplines which were 65.5 per cent male and 34.5 per cent female (DEETYA, 1996).

### **Type of institution**

In 1996 just under a third of all students (30.3 per cent) were enrolled in the large established universities in the 'Sandstone' group, consisting of those universities established before world war two (except Tasmania), plus the large post-war foundations at the University of NSW, Monash University and the Australian National University. These institutions command the great majority of funding for research and in most of their courses, school leaver cut-off scores for entry are high. Another 26.8 per cent of students were enrolled in the other Australian universities established before 1986 (the year that the WA Institute of Technology

became the Curtin University of Technology), first of the former colleges of advanced education to do so. A further 19.1 per cent of students were enrolled at Curtin and the other four large universities of technology, one in each of Sydney, Melbourne, Brisbane and Adelaide. Most of the remaining students (23.1 per cent) attended the other universities that have been formed since 1986.

The fastest growing group of institutions was the new universities, some of which were still undergoing their initial development as higher education institutions. The large universities of technology also underwent a notable expansion: between 1990 and 1996 the total number of students in this group rose by 73.2 per cent. These universities emphasised relations with industry, applied research, vocational preparation and continuing professional education. Their level of part-time enrolments was high.

**Table 3 Students in higher education by type of institution, 1990, 1995, 1996**

	'Sandstone' universities	other pre-1986 unis	large unis of technology	other post-1986 unis	other institutions	total students
1990	138,339	106,189	69,977	53,254	117,316	485,075
1995	185,721	162,091	115,761	136,977	3627	604,177
1996	191,843	169,775	121,180	147,202	4094	634,094
change 1995-1996	+ 3.3%	+ 4.7%	+ 4.7%	+ 7.5%	+ 12.9%	+ 5.0%

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics 1990, 1996 and Preliminary, 1997*, Canberra, AGPS.

'Sandstone universities' includes Sydney, NSW, Melbourne, Monash, Queensland, WA, Adelaide and the Australian National University. 'Other pre-1986 universities' includes Newcastle, New England, Wollongong, La Trobe, Deakin, Griffith, James Cook, Murdoch, Flinders and Tasmania. The large universities of technology are University of Technology Sydney, RMIT, Queensland UT, Curtin UT and the University of SA. 'Other post-1986 universities' refers to other institutions designated as universities or university colleges. In the case of 1990, which fell before the then round of mergers was complete, only the then core components of universities and future large universities of technology are included in their respective categories. For more discussion of the categories and their implications see Marginson, 1997a.

Young people constituted a larger share of enrolments at the 'Sandstones' than the other groupings, and as this suggests, the 'Sandstones' also have a relatively high proportion of full-time students. In contrast, the largest providers of external education were Charles Sturt, Deakin, Southern Queensland, New England, and Monash at its Gippsland campus.

## Fields of study

In enrolment terms, the largest fields of study in higher education were the Arts, Humanities and the Social Sciences; Business, Management and related fields (including Economics and Administration); Science; Health Sciences. Education, the second largest field until a decade ago, was fifth largest in 1996. It was the only field in which the absolute number of students had fallen since 1987. Between 1990 and 1996 the most rapid growth was in Law, Agriculture, Architecture and Business. While there was obvious growth in most vocationally specific fields, enrolments in the generalist fields of Science and Arts, Humanities and Social Sciences have also risen faster than average. These Faculties were not 'non-vocational', in that they included disciplines such as Computing and Psychology, and in recent years there had been a trend to more vocationally focused courses within Humanities and Social Sciences.

Table A2 provides details of enrolments by field of study. It shows that between 1995 and 1996 the most rapid enrolment growth was in Business Studies, Architecture and Law.

**Table 4 15-19 year olds in higher education, 1990, 1995 and 1996, full-time and part-time**

	1990			1995			1996		
	FT	PT	total	FT	PT	total	FT	PT	total
15-16 years	1765	95	1860	1219	83	1302	1078	94	1172
17 years	34,787	1658	36,445	33,884	1424	35,308	35,231	1564	36,795
18 years	59,406	4200	63,606	59,314	3957	63,271	62,205	4410	66,615
19 years	54,129	5803	59,932	58,567	6232	64,799	60,588	6620	67,208
15-19 years	150,087	11,756	161,843	152,984	11,696	164,680	159,102	12,688	171,790

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics for 1990, 1995 and 1996*, Canberra, AGPS.

Includes overseas students. FT means full-time, PT means part-time and includes both internal and external students. Note that students aged less than 15 years are included in the 15-16 year old group.

## Enrolment of 15-19 year olds

By 1996 the number of 15-19 year olds had reached 171,790, exceeding the previous high point in 1991. Of these students 1172 were aged 16 years or less at 31 March 1996, and a further 36,795 were 17 years of age, as Table 4 shows. Between 1995 and 1996 there was some growth in enrolments at all levels, except 15-16 year olds, where there is a long term trend to falling numbers.



As Table 4 indicates the overwhelming majority of students aged 19 years or less were enrolled on a full-time basis: 92.9 per cent of females and 92.3 per cent of all males in 1996. Of the 12,688 part-time students in 1996, 10,818 were enrolled as internal part-time students (6.3 per cent) and only 1870 (1.1 per cent) were external students. Similarly, it appears that few young students take part in Open Learning courses (ABS, 1996A: 32). The picture was very different in the older age groups. In 1996 there were a total of 176,690 internal part-time students and 85,088 externals in all age groups, constituting 27.9 per cent and 13.4 per cent respectively of the total student body. Only 23.3 per cent of students aged 30 years and over were enrolled full-time. In that age group internal part-timers constituted 46.9 per cent of students, while 29.8 per cent were externals. In the older age groups higher education students were much more likely to mix study with full-time work (DEETYA, 1996).

### Level of study

Similarly, the norm for young people in higher education was Bachelor level study. In 1996, 97.4 per cent of the 171,790 students aged 19 or less 1996 were at Bachelor degree level, with most of the remainder (1.9 per cent) in sub-Bachelor programs. Only 112 were postgraduates (less than 0.1 per cent).

**Table 5 Level of study in higher education, 15-19 year olds 1990, 1995 and 1996**

	15-19 year old students					all students				
	post-grad	bach degree	sub-bach	other course	total	post-grad	bach degree	sub-bach	other course	total
1990	139	135,393	25,369	942	161,843	78,762	340,598	60,709	5006	485,075
1995	69	160,083	3424	1104	164,680	124,125	454,846	15,749	9457	604,177
1996	112	167,339	3204	1135	171,790	132,495	474,754	16,961	9884	634,094

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics 1990,1995 and 1996*, Canberra, AGPS.

Post-grad means postgraduate course (higher degree, or graduate or postgraduate diploma or certificate). Bach degree means bachelor degree. Sub-bach refers to diploma and certificate courses below bachelor level and typically two years full-time or less. Other course includes enabling courses and non-award courses.

This compared with 20.9 per cent postgraduate enrolment in the whole of higher education. Sub-Bachelor courses were more prevalent among students aged over 25 years than young students. Table 5 summarises the enrolment of the 15-19 year age group by level of study.

Table 5 also shows the declining role of sub-Bachelor level courses since 1990. The number of 15-19 year olds enrolled in sub-Bachelor diploma and certificate programs dropped from 25,369 in 1990 to 3204 in 1996. This signifies the reconstruction of the old college of advanced education courses into university programs, at the same time as the role of TAFE in diploma programs was being consolidated. Nevertheless, not all sub-Bachelor programs in higher education had disappeared. Between 1995 and 1996 the total number of students enrolled at this level increased by 7.7 per cent, though the number of 15-19 year old sub-Bachelor students fell. This suggests that a diploma/degree division between TAFE and higher education held with greater precision for school leavers than for older students.

## Participation rates of young people

Education participation rates express the number of people enrolled in education as a proportion of the relevant age group in the population. Participation is measured by two different methods. One is to calculate the number of people attending an institution at a certain point in time, as in the ABS surveys. The other is to use administrative data based on the enrolments that occurred over a whole year, the method most often used by DEETYA. The latter method produces higher rates of participation (ABS, 1996a: 113-114). Nevertheless, trends may be measured with equal accuracy in either data set.

**Table 6 Higher Education Participation Rates by enrolment type, 17-19 and 17-64 years, 1975, 1987 and 1990-1996**

	participation per 100 of the relevant population cohort, age at 30 June								
	1975	1987	1990	1991	1992	1993	1994	1995	1996
	%	%	%	%	%	%	%	%	p. %
<b>17-19 years</b>									
full-time	10.1	11.6	14.2	15.3	15.0	15.1	15.7	16.2	16.9
part-time	1.0	0.9	1.0	1.0	0.9	1.0	1.0	1.1	1.2
total	11.0	12.5	15.2	16.3	15.9	16.0	16.6	17.2	18.0
<b>17-64 years</b>									
full-time	2.1	2.3	2.7	3.0	3.0	3.0	3.0	3.1	3.2
part-time	1.2	1.6	1.7	1.9	2.0	2.1	2.1	2.2	2.2
total	3.3	3.8	4.4	4.8	5.0	5.1	5.1	5.2	5.4

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Part-time includes both internal and external participation. Includes overseas students. p. means data are preliminary. Unfunded private institutions are excluded (eg. Bond University).

**Table 7 Higher Education Participation Rates by gender, 17-19 and 17-64 years, 1975, 1987 and 1990-1996**

	participation per 100 of the relevant population cohort, age at 30 June								
	1975	1987	1990	1991	1992	1993	1994	1995	1996 p.
	%	%	%	%	%	%	%	%	%
<b>17-19 years</b>									
female	11.0	13.8	17.5	18.9	18.5	18.7	19.5	20.3	21.3
male	10.9	11.2	13.0	13.8	13.4	13.4	13.9	14.4	14.9
persons	11.0	12.5	15.2	16.3	15.9	16.0	16.6	17.2	18.0
<b>17-64 years</b>									
female	2.6	3.9	4.8	5.2	5.4	5.5	5.5	5.7	5.9
male	3.8	3.8	4.1	4.4	4.6	4.7	4.7	4.8	4.9
persons	3.3	3.8	4.4	4.8	5.0	5.1	5.1	5.2	5.4

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Includes both full-time and part-time participation. Includes overseas students. p. means data are preliminary. Unfunded private institutions are excluded (eg. Bond University).

**Table 8 Participation of 17-19 year olds in Higher Education, by Enrolment Type and Gender, 1990, 1995 and 1996**

	1990			1995			1996 p.		
	FT	PT	total	FT	PT	total	FT	PT	total
<b>female</b>									
17 years	4.6	0.2	<b>4.7</b>	4.7	0.2	<b>4.9</b>	4.9	0.2	<b>5.1</b>
18 years	21.8	1.0	<b>22.9</b>	25.8	1.2	<b>27.0</b>	26.8	1.4	<b>28.2</b>
19 years	22.3	1.7	<b>24.0</b>	26.4	2.2	<b>28.5</b>	27.9	2.5	<b>30.4</b>
17-19 years	16.5	1.0	<b>17.5</b>	19.1	1.2	<b>20.3</b>	20.0	1.3	<b>21.3</b>
<b>male</b>									

17 years	3.1	0.2	<b>3.3</b>	3.3	0.1	<b>3.4</b>	3.3	0.1	<b>3.4</b>
18 years	15.9	1.0	<b>16.9</b>	17.6	0.8	<b>18.4</b>	18.4	1.0	<b>19.4</b>
19 years	16.6	1.7	<b>18.3</b>	19.1	1.8	<b>20.9</b>	19.9	1.8	<b>21.8</b>
17-19 years	12.0	1.0	<b>13.0</b>	13.4	1.0	<b>14.4</b>	13.9	1.0	<b>14.9</b>
<b>persons</b>									
17 years	3.8	0.2	<b>4.0</b>	4.0	0.2	<b>4.2</b>	4.1	0.1	<b>4.2</b>
18 years	18.8	1.0	<b>19.8</b>	21.6	1.0	<b>22.6</b>	22.5	1.2	<b>23.7</b>
19 years	19.4	1.7	<b>21.1</b>	22.7	1.9	<b>24.6</b>	23.8	2.2	<b>26.0</b>
17-19 years	14.2	1.0	<b>15.2</b>	16.2	1.1	<b>17.2</b>	16.9	1.2	<b>18.0</b>

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Includes overseas students. FT means full-time, PT means part-time and includes both internal and external students. p. means data are preliminary. Unfunded private institutions are excluded.

From 1990 to 1996 the participation of 17-19 year olds rose significantly, with a shift to full-time participation, particularly among females. A slight decline in the participation rate in 1992-1993 was followed by a steady increase after 1993. Participation reached its highest ever level of 18 in every 100 in 1996 (Table 7). Table 8 shows that the growth in participation was largely confined to 18 and 19 year olds, with little change for 17 year olds. Among 19 year olds in 1996, a record level of 30.4 per cent of females and 21.8 per cent of males were students in higher education. At the same time, the size of the relevant population cohort was in decline (ABS, 1997b), and mature age and second degree entry continued to grow at healthy rates. Enrolments in postgraduate education grew very rapidly. In the outcome the increase in the rate of participation of young people did not translate into a rise in the 15-19 year old share of total enrolments, or of total commencements. If the Commonwealth had intended to secure a major shift towards school leaver entry and away from second degree enrolment, this objective was unsuccessful. Nevertheless, it is important to recognise that young people's access increased substantially, and if the 15-19 year old group had not been in demographic decline, the statistical picture would have been different. Further, the gradual policy shift towards a demand-driven system, a shift accompanied by rising user payments, suggests that first and second degree enrolments were no longer in a zero-sum relationship. Under the mid-1990s policy settings, both 15-19 old participation and mature age participation could increase simultaneously.

As the enrolment data in Table 1 and 2 suggest, young women participated in higher education at a greater rate than young men, and the gap was widening. There was little difference between the sexes in 1975. By 1990 the participation rate of 17-19 year old females was 17.5 per cent compared to a male rate of 13.0 per cent. By 1996 female participation was at 21.3 per cent while the male rate was at 14.9 per cent, just over two thirds that of females (Table 8).

**Table 9 Higher Education Participation Rates, 1995 and 1996, with and without international (overseas) students**

	participation per 100 of the relevant population cohort, age at 30 June							
	17 years	18 years	19 years	17-19 years	20-24 years	25-29 years	30-64 years	17-64 years
	%	%	%	%	%	%	%	%
<b>with overseas students</b>								
1995	4.2	22.6	24.6	17.2	15.1	5.8	2.2	5.2
1996 p.	4.2	23.7	26.0	18.0	15.9	6.1	2.3	5.4
<b>no overseas students.</b>								
1995	4.1	22.2	23.8	16.8	13.6	5.1	2.0	4.8
1996 p.	4.2	23.3	25.1	17.6	14.3	5.4	2.1	5.0

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

includes both full-time and part-time participation. p. means data are preliminary

### International students

Between 1990 and 1996 the number of full fee international students rose from 16,805 to 52,899 (DEETYA 1996). Participation rates normally include international students. The relevant population cohort includes foreigners resident in Australia for a period of twelve months or more, meaning that for the purposes of calculating participation rates, some international students are included in the numerator but not in the denominator. This tends to exaggerate those rates. Removal of international students from the numerator creates the opposite bias: it tends to understate participation rates, because some international students were still part of the denominator. Nevertheless, it shows that the trend to increased participation is robust and not an artefact of the remarkable growth in the international student market. Between 1995 and 1996 the participation rate of 17-19 year olds increased by 0.8 per cent, whether or not international students are included (Table 9).

**Table 10 Higher Education Participation Rates, 1995, by State/Territory, and State/Territory of Origin**

	participation per 100 of the relevant population cohort, age at 30 June								
	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	AUST

	%	%	%	%	%	%	%	%	%
<b>S/T attendance</b>									
17-19 years	14.3	19.5	17.3	17.0	19.2	13.5	9.2	27.7	17.2
17-64 years	4.8	5.8	4.8	5.2	5.0	4.2	4.2	9.7	5.2
<b>S/T origin.</b>									
17-19 years	13.9	18.8	16.9	16.2	18.9	13.2	9.0	27.1	16.8
17-64 years	4.5	5.2	4.6	4.5	4.6	4.1	5.2	7.5	4.8

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Includes both full-time and part-time participation.

Participation rates for State/Territory (S/T) of Attendance include overseas students. Participation rates for State/Territory of Origin exclude overseas students and 'return' inter-State students to their State of permanent address.

## State/Territory variations

There remained considerable differences between the States and Territories in rates of participation in higher education. In 1995 the proportion of the 17-19 year old cohort enrolled varied from 27.7 per cent in the Australian Capital Territory to only 9.2 per cent in the Northern Territory. Participation in Victoria and South Australia was well above the national average, while rates in Tasmania and NSW were relatively low (Table 10).

Inter-State comparisons are complicated by student mobility. In 1995, 50,474 higher education students had home addresses outside Australia, and a further 41,310 whose permanent home address was in Australia were studying outside their State/Territory of permanent residence (ABS, 1996A: 172). State of origin participation rates exclude international students and 'return' all other students to their State/Territory of permanent residence. As Table 10 illustrates, the effect is to reduce participation rates by more in WA, Victoria and the ACT than in other States/Territories. A relatively high proportion of NSW and Queensland residents are mobile for study purposes.

## Entry into higher education

Few issues in education receive as much public and governmental attention as entry into higher education. Higher education institutions control their own processes of selection but the final make-up of the student body is capable of influence by many factors external to the selection process, including secondary examinations and subject systems, the level and extent of fees and other private costs, the recognition of qualifications earned in TAFE and the extent of opportunities for other potential applicants not in possession of standard

secondary school qualifications, and the operation of specific government programs designed to increase the participation of specific groups of students, such as indigenous students.

### **Indigenous students**

In general Commonwealth policy has sought to broaden the social, educational and occupational composition of the potential pool of entrants, though policies to achieve this objective have varied. A major focus has been the participation of indigenous Australians. Between 1994 and 1996 the number of Aboriginal and Torres Strait Islander students enrolled in higher education institutions increased from 6264 to 6956. These students were concentrated in Arts, Social Sciences and Humanities; Education; and Health Sciences. Between 1990 and 1995 the number of indigenous graduates rose from 483 to 863, representing 0.6 per cent of all graduates, compared to the 2.0 per cent of indigenous people in the Australian population (ABS, 1997a).

Rural and remote students are also substantially unrepresented in higher education (see for example ABS, 1992: 83), and for many indigenous students, the cultural barriers they face are compounded by locational barriers.

### **Socio-economic advantage and disadvantage**

Notwithstanding the expansion of higher education, its socio-economic composition remains substantially weighted in favour of students from upper socio-economic backgrounds as measured by parental incomes, wealth, education and occupation, and students' schools of origin: government, Catholic private or independent private. For example the September 1996 ABS labour force survey found that 23.3 per cent of the higher education students in the survey stated that the last school they attended was an independent private school, although these schools comprise only 15.4 per cent of year 12 enrolments in 1995 (ABS 1996b; ABS, 1997d). Students from these schools are more strongly represented in the 'Sandstone' universities than other institutions (Marginson, 1997b). The Commonwealth does not collect and publish comprehensive data on the socio-economic composition of individual institutions, or of higher education as a whole. In recent years the main source of data has been the Australian Council for Educational Research's (ACER's) *Youth in transition* project.

The ACER research group found that during the 1980s, because the growth of secondary enrolments exceeded the growth in opportunities to enter higher education, entrance to higher education became less rather than more equitable. 'By the end of the decade ... the advantage of being wealthy had increased'. In teenage years, the role of independent private schools was enhanced relative to the role of government schools, though government school secondary students

regained some of the lost ground in later age groups (Williams et al, 1993: 32-54, 78-86). In a National Board of Employment, Education and Training financed study, Postle et al (1995: 84-85) noted that students from upper socio-economic backgrounds tended to concentrate in the prestigious professional courses, and were much more strongly over-represented in postgraduate than undergraduate education.

Because there are alternative choices for private expenditure, the individual's capacity to participate in higher education is affected by its costs. Under the arrangements existing in 1996, 56.6 per cent of all students opted to pay the HECS on a deferred basis through the tax system, 23.1 per cent paid the HECS at the point of enrolment, 12.8 per cent paid up-front tuition fees (for example fee paying international students and postgraduate students), and the remainder had fees paid by third parties or were exempt (DEETYA 1996). In its first five years the HECS had little effect on the socio-economic composition of higher education. This was a function of its character as a deferred income-contingent payment with zero real interest rate, which compensated for prior inequalities in the capacity to borrow privately (Chapman, 1996).

However, the 1997 increases in the level of HECS charges, and the introduction of undergraduate fees in 1998, add two new and potentially influential elements to the equation. To the extent to which private costs are shifted from the income contingent HECS mechanism to up-front fee charging, the potential for regressive socio-economic effects is enhanced.

### **Access from TAFE**

It is difficult for policy makers to secure consensus on these issues, even among themselves. There is broad agreement on the need to improve routes between Vocational Education and Training (VET) and higher education, and expand other forms of non-school leaver entry. However, not many higher education students aged 15-19 use these routes - few have the necessary post-school education outside university, or occupational experience. Access for young people is largely governed by academic performance at school. Those students for whom school has not proved a satisfactory educational preparation for the rather different world of higher education mostly have to wait before gaining a second chance as mature age students.

In 1996, 51.8 per cent of all students commencing new courses in higher education had not attended secondary school in the previous two years. This reveals little about young people's access because 26.0 per cent of commencing students were postgraduates, and only 36.2 per cent of all commencers were aged 19 years or less. In 1996, 8.2 per cent of commencers had gained their



highest previous qualification in TAFE, although this qualification did not necessarily provide a basis for admission. Of the 193,392 students who entered bachelor level courses that year - the level at which TAFE qualifications could be expected to play the greatest role - 11,819 (6.1 per cent) were admitted on the basis of a previous complete or incomplete TAFE course, and a further 2296 (only 1.2 per cent of the total) on the basis of the satisfactory completion of secondary qualifications in TAFE or other non-school institutions (Table 11).

**Table 11 Students Commencing Bachelor Level Courses, Basis for Admission, 1996**

basis of admission	commencing students	proportion of these students %
completed higher education course	20,098	10.4
incomplete higher education course	24,682	12.8
satisfactory completion of secondary school	88,608	45.8
secondary equivalent course in TAFE or elsewhere	2296	1.2
other complete or incomplete TAFE course	11,819	6.1
employment experience, professional studies or OL	7451	3.9
mature age or other special entry provisions	18,978	9.7
examination or assessment by institution	8086	4.2
other basis	11,374	5.9
total	193,392	100.0

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics 1996*, Canberra, AGPS.

OL means Open Learning course.

### **VET-higher education relations**

There is more engagement between VET and higher education institutions both formal and informal - than the minor role of TAFE qualifications in student selection might suggest. Informally, a large minority of post-school students undertake courses in both post-school sectors, with the proportion who follow a higher education course with a VET course being much higher than the proportion who follow a VET course with a higher education course (Golding et al 1996). Formally, most universities have created credit transfer arrangements with VET institutions, the majority of these arrangements being in Engineering and Business Studies. There are also four institutions which house both TAFE

and higher education divisions: Southern Cross University in NSW and Swinburne University, Victoria University and RMIT in Victoria. Within these institutions there are still cultural barriers between the sectors, but over time internal articulation arrangements have emerged, including systems for the mutual development of curricula.

Monash University and Casey Institute of TAFE have negotiated a combined course program, whereby students at the Monash Berwick campus prepare for both a Monash degree and a TAFE diploma in related fields. Similar arrangements are under discussion in a number of other institutions. TAFE also plays a widespread though little recognised role as a provider of higher education programs on behalf of individual universities. The incidence of higher education places in TAFE, and of TAFE places in higher education, is not specifically reported in either the DEETYA statistical collection or the NCVET statistical collection in the VET sector.

## **Summary and conclusions**

- Enrolments in higher education grew throughout the last decade, though the rate of growth fluctuated. In 1996 the rate of participation of 17-19 year olds (18.0 per cent) and the overall participation of 17-64 year olds (5.4 per cent) were both at the highest ever levels. The overwhelming majority of 17-19 year olds were enrolled full-time and all but a handful were in bachelor degree programs, with diploma courses playing a minor part.
- Among 17-19 year olds, female participation at 21.3 per cent outstrips male participation at 14.9 per cent. Male participation rises in later years. In the 25-29 year age group it is just below the level of female participation, and a substantial majority of the students in higher degrees are male.
- Participation varies considerably between the States/Territories, being highest in the ACT, Victoria and SA, and lowest in Tasmania and NSW.
- Indigenous students are still under-represented, and there may have been a regression in the socio-economic composition of the student body. The area needs closer monitoring by the Commonwealth, and the potential social effects of changes to HECS and fees also need to be watched carefully.
- The role of TAFE courses in university selection is poorly developed, especially for young people, but a range of formal and informal links are emerging. These need to be made more visible in official reporting, eg. combined course structures, and cross-sectoral enrolments.

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**Table A1 15-19 year olds in higher education, 1990, 1995 and 1996, full-time and part-time**

	1990			1995			1996		
	FT	PT	total	FT	PT	total	FT	PT	total
<b>female</b>									
15-16 years	1056	43	1099	718	50	768	676	61	737
17 years	20,112	817	20,929	19,770	800	20,570	20,785	883	21,668
18 years	33,372	2059	35,431	34,080	2205	36,285	35,465	2461	37,926
19 years	30,326	2804	33,130	33,017	3357	36,374	34,674	3634	38,308
15-19 years	84,866	5723	90,589	87,585	6412	93,997	91,600	7039	98,639
<b>male</b>									
15-16 years	709	52	761	501	33	534	402	33	435
17 years	14,675	841	15,516	14,114	624	14,738	14,446	681	15,127
18 years	26,034	2141	28,175	25,234	1752	26,986	26,740	1949	28,689
19 years	23,803	2999	26,802	25,550	2875	28,425	25,914	2986	28,900
15-19 years	65,221	6033	71,254	65,399	5284	70,683	67,502	5649	73,151
<b>persons</b>									
15-16 years	1765	95	1860	1219	83	1302	1078	94	1172
17 years	34,787	1658	36,445	33,884	1424	35,308	35,231	1564	36,795
18 years	59,406	4200	63,606	59,314	3957	63,271	62,205	4410	66,615
19 years	54,129	5803	59,932	58,567	6232	64,799	60,588	6620	67,208
15-19 years	150,087	11,756	161,843	152,984	11,696	164,680	159,102	12,688	171,790

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics for 1990, 1995 and 1996*, Canberra, AGPS.

Includes overseas students. FT means full-time, PT means part-time and includes both internal and external students. Note that any students aged less than 15 years are included in the 15-16 year old group.

**Table A2 Students in Higher Education by Broad Field of Study, 1987, 1990, 1995 and 1996**

	1987	1990	1995	1996	change 1995-1996	change 1990-1996
					%	%
non-award courses	5534	3128	5956	6281	+ 5.5	+ 100.8
Law and Legal Studies	11,345	14,135	23,490	24,995	+ 6.4	+ 76.8
Agriculture	7061	8559	11,850	12,059	+ 1.8	+ 40.9
Architecture and Building	8974	10,724	13,550	14,704	+ 8.5	+ 37.1
Business and related fields	72,688	104,825	129,177	143,583	+ 11.2	+ 37.0
Science	51,422	67,330	88,172	91,986	+ 4.3	+ 36.6
Engineering/Surveying	30,098	36,019	48,169	48,733	+ 1.2	+ 35.3
Health (inc. Medicine)	37,328	54,498	72,137	73,262	+ 1.6	+ 34.4
Humanities/Social Science	95,714	109,551	139,367	146,308	+ 5.0	+ 33.6
Veterinary Science	1458	1534	1674	1658	- 1.0	+ 8.1
Education	72,112	74,772	70,635	70,525	- 1.6	- 5.7
total	393,734	485,075	604,177	634,094	+ 5.0	+ 30.7

Source: Department of Employment, Education, Training and Youth Affairs, *Selected Higher Education Statistics, 1996*, Canberra, AGPS.

**Table A3 Participation Rates by Age Group, Higher Education 1990**

	participation per 100 of the relevant population cohort, age at 30 June							
	17 years	18 years	19 years	17-19 years	20-24 years	25-29 years	30-64 years	17-64 years
	%	%	%	%	%	%	%	%
<b>1990</b>								
<b>female</b>								
full-time	4.6	21.8	22.3	16.5	9.1	1.5	0.5	3.0
part-time	0.2	1.0	1.7	1.0	3.1	2.5	1.5	1.8
total	4.7	22.9	24.0	17.5	12.2	4.0	2.0	4.8
<b>male</b>								
full-time	3.1	15.9	16.6	12.0	8.6	1.8	0.4	2.5
part-time	0.2	1.0	1.7	1.0	3.1	2.6	1.2	1.6
total	3.3	16.9	18.3	13.0	11.7	4.3	1.6	4.1
<b>persons</b>								
full-time	3.8	18.8	19.4	14.2	8.9	1.7	0.4	2.7
part-time	0.2	1.0	1.7	1.0	3.1	2.5	1.4	1.7
total	4.0	19.8	21.1	15.2	11.9	4.2	1.8	4.4

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Includes overseas students. .Part-time includes both internal and external.

**Table A4 Participation Rates by Age Group, Higher Education 1995**

	participation per 100 of the relevant population cohort, age at 30 June							
	17 years	18 years	19 years	17-19 years	20-24 years	25-29 years	30-64 years	17-64 years
	%	%	%	%	%	%	%	%
<b>1995</b>								
<b>female</b>								
full-time	4.7	25.8	26.4	19.1	11.7	2.2	0.5	3.3
part-time int	0.2	1.0	1.9	1.0	3.6	2.5	1.2	1.6
part-time ext	0.1	0.2	0.3	0.2	0.9	1.2	0.7	0.7
total	4.9	27.0	28.5	20.3	16.1	5.8	2.4	5.7
<b>male</b>								
full-time	3.3	17.6	19.1	13.4	10.3	2.5	0.5	2.8
part-time int	0.1	0.8	1.6	0.8	3.2	2.4	1.0	1.4
part-time ext	0.0	0.1	0.2	0.1	0.6	1.0	0.5	0.6
total	3.4	18.4	20.9	14.4	14.0	5.8	2.0	4.8
<b>persons</b>								
full-time	4.0	21.6	22.7	16.2	11.0	2.3	0.5	3.1
part-time int	0.1	0.9	1.7	0.9	3.4	2.4	1.1	1.5
part-time ext	0.0	0.2	0.3	0.2	0.7	1.1	0.6	0.7
total	4.2	22.6	24.6	17.2	15.1	5.8	2.2	5.2

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Includes overseas students. Part-time includes both internal and external.



**Table A5 Participation Rates by Age Group, Higher Education 1996 p.**

	participation per 100 of the relevant population cohort, age at 30 June							
	17 years	18 years	19 years	17-19 years	20-24 years	25-29 years	30-64 years	17-64 years
	%	%	%	%	%	%	%	%
<b>1996 p.</b>								
<b>female</b>								
full-time	4.9	26.8	27.9	20.0	12.5	2.3	0.6	3.5
part-time int	0.2	1.2	2.1	1.2	3.6	2.6	1.2	1.6
part-time ext	0.0	0.2	0.4	0.2	1.1	1.3	0.8	0.8
total	5.1	28.2	30.4	21.3	17.2	6.2	2.5	5.9
<b>male</b>								
full-time	3.3	18.4	19.9	13.9	10.8	2.6	0.5	2.9
part-time int	0.1	0.9	1.6	0.9	3.2	2.3	0.9	1.4
part-time ext	0.0	0.1	0.2	0.1	0.7	1.1	0.6	0.6
total	3.4	19.4	21.8	14.9	14.7	6.0	2.0	4.9
<b>persons</b>								
full-time	4.1	22.5	23.8	16.9	11.6	2.4	0.5	3.2
part-time int	0.1	1.0	1.9	1.0	3.4	2.5	1.1	1.5
part-time ext	0.0	0.2	0.3	0.2	0.9	1.2	0.7	0.7
total	4.2	23.7	26.0	18.0	15.9	6.1	2.3	5.4

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

p. means data are preliminary. Includes overseas students. .Part-time includes both internal and external.

**Table A6 Higher Education Participation Rates by gender and age, 1990, 1995 and 1996**

	participation per 100 of the relevant population cohort, age at 30 June							
	17 years	18 years	19 years	17-19 years	20-24 years	25-29 years	30-64 years	17-64 years
	%	%	%	%	%	%	%	%
<b>female</b>								
1990	4.7	22.9	24.0	17.5	12.2	4.0	2.0	4.8
1995	4.9	27.0	28.5	20.3	16.1	5.8	2.4	5.7
1996 p.	5.1	28.2	30.4	21.3	17.2	6.2	2.5	5.9
<b>male</b>								
1990	3.3	16.9	18.3	13.0	11.7	4.3	1.6	4.1
1995	3.4	18.4	20.9	14.4	14.0	5.8	2.0	4.8
1996 p.	3.4	19.4	21.8	14.9	14.7	6.0	2.0	4.9
<b>persons</b>								
1990	4.0	19.8	21.1	15.2	11.9	4.2	1.8	4.4
1995	4.2	22.6	24.6	17.2	15.1	5.8	2.2	5.2
1996 p.	4.2	23.7	26.0	18.0	15.9	6.1	2.3	5.4

Source: Department of Employment, Education, Training and Youth Affairs, *Higher Education Participation Rates, 1997*, AGPS, Canberra.

Includes both full-time and part-time participation. Includes overseas students. p. means data are preliminary

