

## Chapter 2 Education and Training

### Secondary education

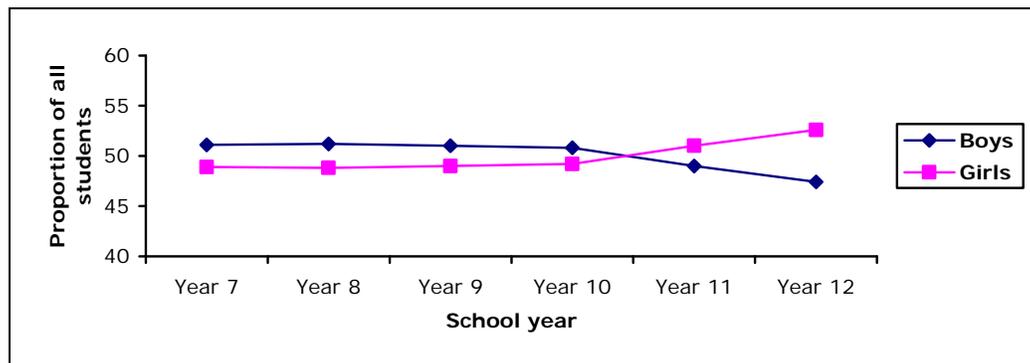
In Australia, school attendance is compulsory up to the age of at least 15 years. In Tasmania and South Australia, school attendance is compulsory until the age of 16 years and in Queensland and Western Australia, it is now compulsory for people aged 15-17 years to remain in school or to participate in an approved education and training pathway (which may involve employment).<sup>1</sup>

In most Australian States and Territories, non-compulsory secondary education usually coincides with the final two years of secondary school or college (Years 11 and 12).

In 2007, there were 987,273 full-time students in Years 7 to 10. Just over half (51.0 per cent) were boys. At the same time there were 438,963 students in Years 11 and 12 and the gender imbalance was reversed (Figure 2.1). Girls comprised 51.7 per cent of all Year 11 and 12 students.<sup>2</sup>

In 2007, there were 147,181 full-time Indigenous students enrolled in secondary education. Girls comprised 48.9 per cent of all Indigenous secondary students.<sup>3</sup>

**Figure 2.1: Full-time secondary school students by gender, 2007**



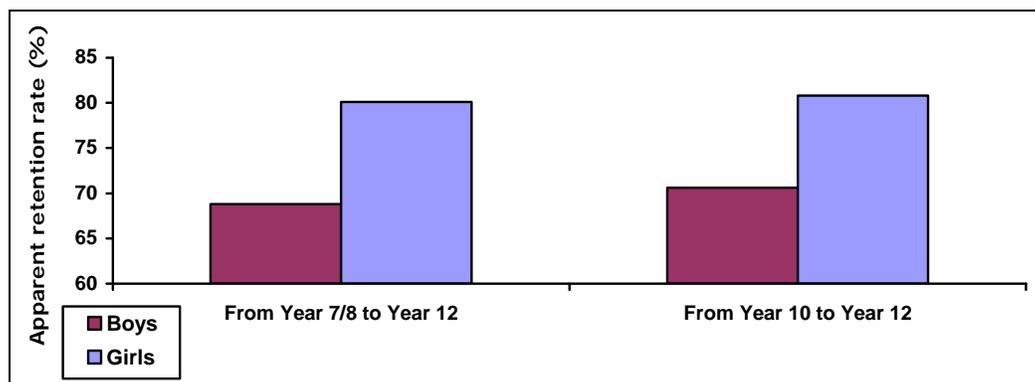
Source: Australian Bureau of Statistics 2008, *Schools, Australia, 2007*, Catalogue No. 4221.0, ABS, Canberra, Table 9. Figures do not include students categorised as 'ungraded'.

The 2007 student numbers include some revised data based on advice from the Australian Bureau of Statistics, 27 January 2009.

\*Year 7 is the last year of primary school in some States and Territories, and the first year of secondary in others.

Figure 2.2 shows that girls are more likely than boys to continue onto Years 11 and 12. In 2007 the gender difference in the apparent retention rate from Year 10 to Year 12 for full-time students was just over 10 percentage points (80.8 per cent for girls and 70.6 per cent for boys).

**Figure 2.2: Apparent retention rates\* of full-time students across secondary school years**



Source: Australian Bureau of Statistics 2008, Schools, Australia, 2007, Catalogue No. 4221.0, ABS, Canberra, Table 23.

\*Apparent retention rate is the number of school students in a designated level/year of education expressed as a percentage of the number at commencement of secondary education or Year 10.

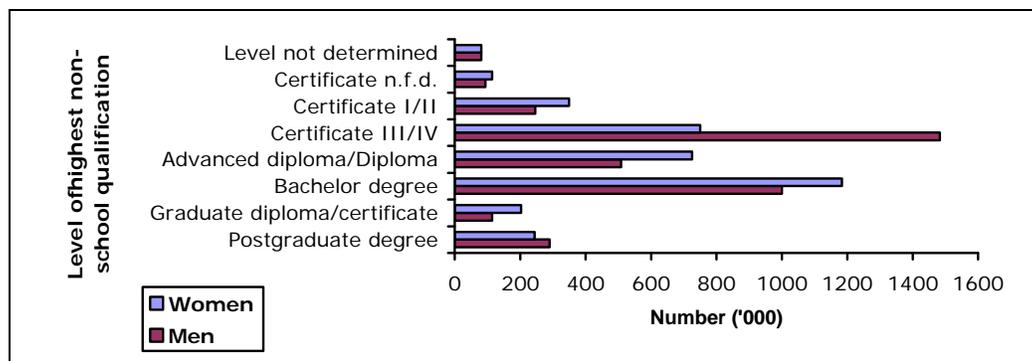
## Educational attainment

### Level of highest non-school qualification

In May 2008, 7.47 million Australians had a non-school qualification. This included 3.65 million women, accounting for 52.6 per cent of all Australian women aged 15 to 64 years.<sup>4</sup> The proportion of Australian women with a non-school qualification has increased from 50.6 per cent in 2007.<sup>5</sup>

As shown by Figure 2.3, a Bachelor degree is the most common form of non-school qualification for women, whereas a Certificate III or IV is the most common qualification among men. The number of women is equal to or exceeds the number of men across all qualification levels, except among those with Certificate III or IV and Postgraduate qualifications.

**Figure 2.3: Population aged 15-64 years by level of highest non-school qualification and gender, 2007**

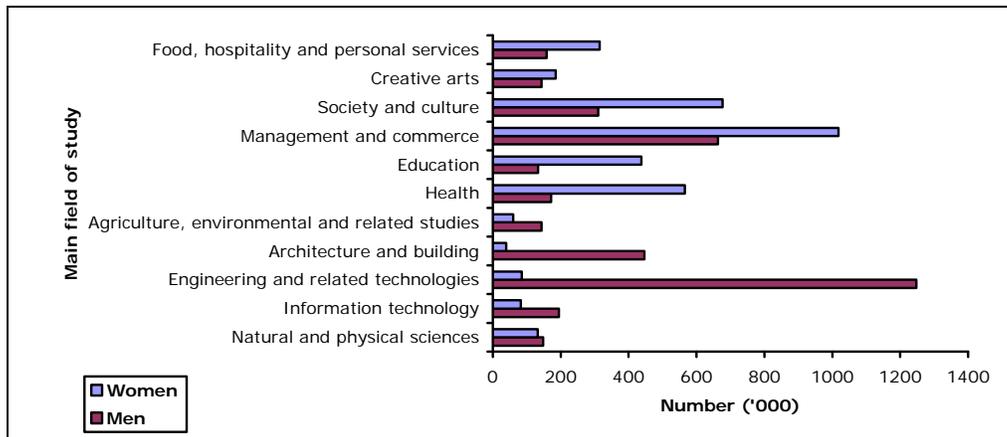


Source: Australian Bureau of Statistics 2008, Education and Work, May 2008, Catalogue No. 6227.0, ABS, Canberra, Table 9.

Figure 2.4 shows clear gender differences in the main fields of study among those with a non-school qualification. Management and

commerce was the main field of study for about one-third of all women with a non-school qualification. Society and culture, Health and Education were also common main fields of study for women. Men’s qualifications were clustered in the Engineering and related technologies and Management and commerce fields of study. Men were also more likely than women to hold qualifications in the fields of Agriculture, environment and related studies, Architecture and building, and Information technology.

**Figure 2.4: Population aged 15-64 years by main field of highest non-school qualification and gender, 2007**



Source: Australian Bureau of Statistics 2008, *Education and Work, May 2008, Catalogue No. 6227.0, ABS, Canberra, Table 9.*

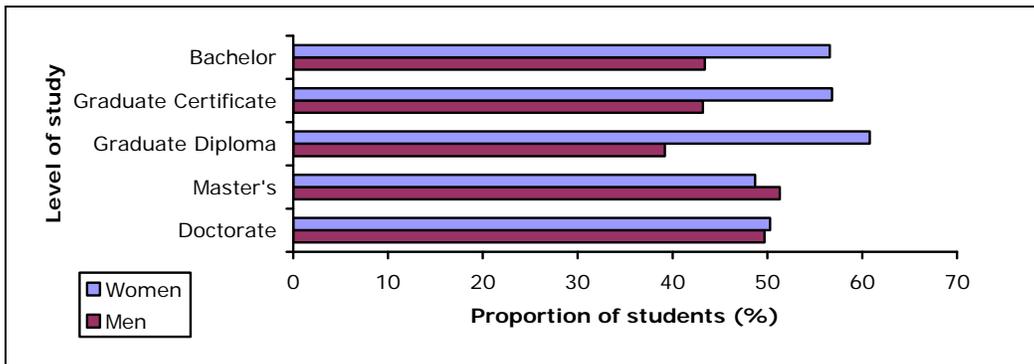
## Higher education participation

### Higher education enrolments

In 2007, women accounted for 55.0 per cent of all higher education students<sup>6</sup> and Indigenous women represented 66.2 per cent of all Indigenous higher education students.<sup>7</sup>

As shown by Figure 2.5, in 2007, women comprised the majority of students enrolled in all levels of study, excepting Master’s courses. Relative to their overall respective shares in higher education enrolments (55:45 in favour of women), women were underrepresented and men were overrepresented in Master’s and Doctorate levels of study.

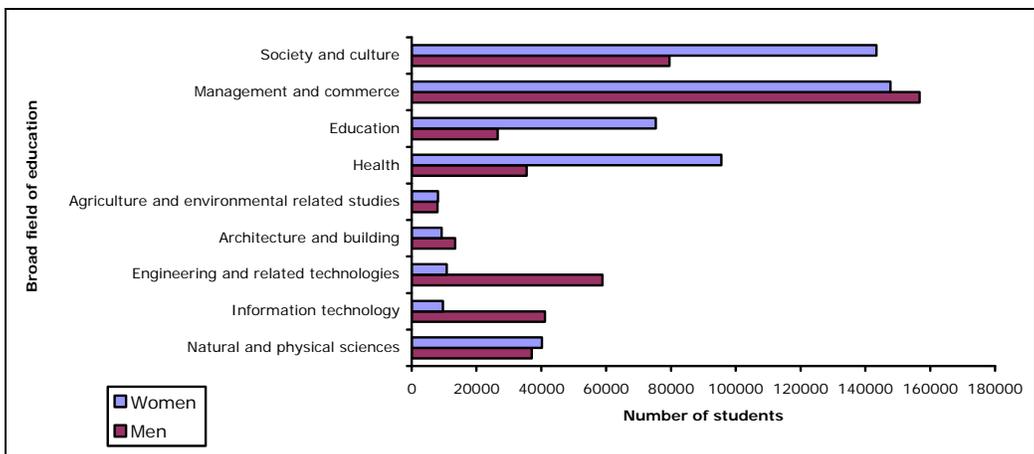
**Figure 2.5: Distribution of students within each higher education course level by gender, 2007**



Source: Department of Education, Employment and Workplace Relations 2008, Students 2007 (Full year): Selected Higher Education Statistics, DEEWR, Canberra, Table 21.

Figure 2.6 shows the number of students enrolled in higher education courses across all levels in 2007 according to broad fields of education. Nearly twice as many women as men were enrolled in Society and Culture courses. Women’s enrolments in Health and Education courses outnumbered men’s by nearly 3:1. Men outnumbered women in Information technology and Engineering courses by 4:1 and 5.5:1 respectively.

**Figure 2.6: Students enrolled in higher education courses by broad field of education and gender, 2007**



Source: Department of Education, Employment and Workplace Relations 2008, Students 2007 (Full year): Selected Higher Education Statistics, DEEWR, Canberra, Table 21.

### Higher education award completions

In 2007, women accounted for 55.9 per cent of all award course completions.<sup>8</sup>

Table 2.1 shows the number of courses completed by women in 2007 as a proportion of all courses by level of study. Although the number of award completions by women outnumbered completions by men, relative to their overall share of annual completions,

women were underrepresented in Postgraduate completions overall, especially in Master's and Doctoral levels, and overrepresented in Graduate Diplomas.

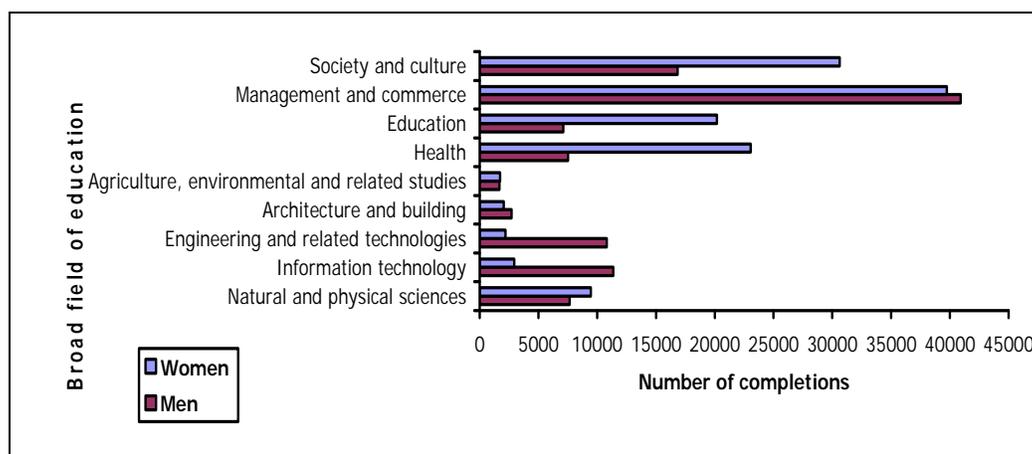
**Table 2.1: Number of higher education award completions by course level and gender, 2007**

Level of course	Men	Women	% Women
Higher Doctorate	25	3	10.7
Doctorate by Research	2,944	2,777	48.5
Doctorate by Coursework	138	136	49.6
Master's by Research	685	735	51.8
Master's by Coursework	26,995	25,034	48.1
Postgraduate Qual/Prelim.	14	12	46.2
Grad. (Post) Dip. - new area	5,452	8,586	61.2
Grad. (Post) Dip. - ext area	1,990	3,797	65.6
Graduate Certificate	5,523	7,741	58.4
Bachelor's Graduate Entry	1,403	2,505	64.1
Bachelor's Honours	4,227	5,935	58.4
Bachelor's Pass	53,984	75,986	58.5
Associate Degree	1,053	682	39.3
Advanced Diploma (AQF)	476	640	57.3
Diploma (AQF)	3,705	3,508	48.6
Other undergraduate award courses	470	365	43.7
<b>Total</b>	<b>109,084</b>	<b>138,442</b>	<b>55.9</b>

*Source: Department of Education, Employment and Workplace Relations, 2008, Award Course Completions 2007: Selected Higher Education Statistics, DEEWR, Canberra, Table 6.*

Figure 2.7 shows the number of completed higher education courses in 2007 for male and female students according to the broad fields of education. The number of completions for women was greater than or nearly equal to the number of completions for men for all courses with the exception of Architecture and Building, Engineering and related technologies and Information technology. Figure 2.5 also shows that almost twice as many women as men completed Society and culture courses and approximately three times as many women as men completed Health and Education courses.

**Figure 2.7: Course completions by broad field of education and gender, 2007**



Source: Department of Education, Employment and Workplace Relations, 2008, Award Course Completions 2007: Selected Higher Education Statistics, DEEWR, Canberra, Table 6

## Graduate work and salaries

### Bachelor graduates' employment prospects

Every year, Graduate Careers Australia conducts the Graduate Destination Survey to determine the work and study destinations and salaries of new Bachelor degree graduates and postgraduates.

Table 2.2 shows that in April 2008, in comparison to male graduates, female graduates were less likely to be available for full-time employment and are more likely to be in part-time or casual employment. Male graduates were slightly more likely than female graduates to have undertaken further full-time study.

**Table 2.2: Activities of Bachelor degree graduates in April of the year after graduation, by gender, 2008**

	Available for full-time employment (%)	In full-time study (%)	In part-time or casual employment, not seeking full-time employment (%)	Not working, seeking part-time or casual employment only (%)	Unavailable for full-time study or any employment (%)	Total (%)
Men	68.6	20.5	5.7	0.3	4.9	100.0
Women	64.9	19.0	10.1	0.5	5.5	100.0

Source: Graduate Careers Australia 2008, GradStats, Number 13, December 2008, GCA, Melbourne, Table 1.

Of all Bachelor graduates who were available for full-time employment, 85.2 per cent were in full-time employment at the time of the survey, with a further 9.6 per cent working on a part-time or casual basis while continuing to seek full-time employment. An additional 5.2 per cent were not employed and still looking for full-time employment four months after completing their qualification.<sup>9</sup>

Similar proportions of female Bachelor graduates (85.0 per cent) and male Bachelor graduates (85.5 per cent) were in full-time employment at the time of the survey.<sup>10</sup>

### **Postgraduate course completers' employment prospects**

Among postgraduate course completers, the proportion of women available for full-time employment was substantially lower than the corresponding proportion of men. This gender difference in full-time employment availability was evident across all levels of postgraduate awards, but was more marked among those awarded a Postgraduate Diploma or Postgraduate Certificate (see Table 2.3). This disparity was due to a considerably higher proportion of women compared to men working part-time or casually and not looking for full-time work.

**Table 2.3: Main activity of postgraduate course completers by level of award and gender, 2007**

	Available for full-time employment (%)	In full-time study (%)	In part-time or casual employment, not seeking full-time employment (%)	Not working, seeking part-time or casual employment only (%)	Unavailable for full-time study or any employment (%)	Total (%)
<b>Graduate Diploma/Certificate</b>						
• Men	82.3	9.3	5.1	0.4	2.9	100.0
• Women	67.9	7.2	18.5	1.1	5.3	100.0
<b>Coursework Master's</b>						
• Men	89.3	4.1	2.5	0.2	3.8	100.0
• Women	78.0	4.0	12.1	0.8	5.1	100.0
<b>Research Master's/PhD</b>						
• Men	83.6	4.4	6.6	0.3	5.1	100.0
• Women	72.3	4.7	15.5	1.4	6.1	100.0

*Source: Graduate Careers Australia 2007, Postgraduate Destinations 2007: A report on the Work and Study Outcomes of Postgraduates, GCA, Melbourne, Table 7.*

Among postgraduate course completers who were available for full-time employment in 2007, men were slightly more likely than women to be in full-time employment across all levels of postgraduate awards (see Table 2.4).

**Table 2.4: Activities of postgraduates available for full-time employment by level of award and gender, 2007**

	Employed full-time (%)	Not working, seeking full-time employment (%)	Working part-time or casual, seeking full-time employment (%)
<b>Graduate Diploma/Graduate Certificate</b>			
• Men	91.7	3.2	5.1
• Women	90.0	2.5	7.5
• Total	90.7	2.7	6.6
<b>Coursework Master's</b>			
• Men	89.3	5.6	5.2
• Women	88.1	5.1	6.8
• Total	88.7	5.4	6.0
<b>Research Master's/PhD</b>			
• Men	89.5	4.7	5.8
• Women	86.6	4.1	9.3
• Total	88.1	4.4	7.6

*Source: Graduate Careers Australia 2007, Postgraduate Destinations 2007: A report on the Work and Study Outcomes of Postgraduates, GCA, Melbourne, Table 7a.*

### **Bachelor graduate starting salaries**

In 2008, the median starting salary for female Bachelor graduates aged less than 25 and in their first full-time employment in Australia was \$45,000, up from \$42,000 in 2007,<sup>11</sup> but lower than median full-time annual salary for male Bachelor graduates in 2008 (\$47,000). In 2008, the median annual salary for female Bachelor graduates was 95.7 per cent of the median male Bachelor graduate salary, up from 93.3 per cent in 2007, but lower than the high of 97.5 per cent in 2005.<sup>12</sup>

Gender differences in Bachelor graduate starting salaries vary between fields of study. As shown by Table 2.5, only in the field of accounting were Bachelor graduate starting salaries equal between men and women. Male and female Bachelor graduate salaries were nearly equal in the fields of physical sciences (98.1 per cent), education (97.9 per cent), law (97.9 per cent), and pharmacy (pre-registration) and agricultural science (97.7 per cent). In the fields of earth sciences, social work and engineering, the median salaries for female Bachelor graduates were higher than that of male Bachelor graduates (122.4 per cent, 105.6 per cent and 101.9 per cent respectively).

Women earned markedly less than men in the fields of art and design (87.8 per cent), optometry (88.2 per cent), architecture and building (88.9 per cent), dentistry (92 per cent), and medicine (94.3 per cent).<sup>13</sup>

**Table 2.5: Median annual starting salaries for Bachelor graduates by selected fields of study and gender, 2008**

Field of study	Women (\$)	Men (\$)
Accounting	44,000	44,000
Agricultural science	42,000	43,000
Architecture and building	40,000	45,000
Art and design	35,100	40,000
Biological sciences	43,400	45,000
Computer science	45,000	47,000
Dentistry	69,000	75,000
Earth sciences	58,000	47,400
Education	47,000	48,000
Engineering	55,000	54,000
Law	47,000	48,000
Mathematics	48,000	49,500
Medicine	50,000	53,000
Optometry	60,000	68,000
Pharmacy (pre-reg)	33,700	34,500
Physical sciences	46,100	47,000
Social work	45,000	42,600
Veterinary science	40,000	41,300

*Source: Graduate Careers Australia 2008, GradStats, Number 13, December 2008, GCA, Melbourne, Table 4.*

### **Postgraduate degree completers starting salaries**

In 2007, the median annual salaries for all postgraduate degree completers in full-time employment, regardless of age or whether this was their first full-time position, are shown in Table 2.6. The data show that the median annual salaries were higher for men than for women across each of the three award levels. The disparity in median salaries between male and female postgraduate degree completers ranged from \$13,000 at the Postgraduate Diploma/Certificate and Coursework Master's levels to \$2,000 at the Research Master's/PhD levels.

The overall difference between male and female median annual salaries among postgraduate degree completers in full-time employment results in a gender pay gap of 17.1 per cent, which is slightly higher than the gender pay gap in average weekly ordinary-time earnings in the general population of full-time employees in May 2008 (16.5 per cent),<sup>14</sup> but is substantially wider than the gender pay gap in median annual earnings of 4.3 per cent among Bachelor graduates in April 2008.<sup>15</sup> See [Chapter 3 – Economic security and financial independence](#) for a discussion on the gender pay gap.

**Table 2.6: Median annual salaries for postgraduate course completers in full-time employment by level of award and gender, 2007**

Level of award	Women (\$)	Men (\$)
Postgraduate Diploma/Certificate	52,000	65,000
Coursework Master's	62,000	75,000
Research Master's/PhD	63,000	65,000
<b>All postgraduates</b>	<b>58,000</b>	<b>70,000</b>

Source: *Graduate Careers Australia 2007, Postgraduate Destinations 2007: A report on the Work and Study Outcomes of Postgraduates*, GCA, Melbourne, Table 24.

There were few fields of education in which the median salaries for female postgraduates exceeded the median salaries for male postgraduates. At the Postgraduate Diploma/Certificate level, female graduates earned more than male graduates in the fields of architecture, social science and geology. At the Coursework Master's level, women earned more than men in the fields of education of visual/performing arts, psychology, social work and pharmacy. Within the Research Master's/PhD cohort, female graduates earned more than male graduates in the field of visual/performing arts only.<sup>16</sup>

### **Vocational education and training**

In 2007, 47.7 per cent of all students enrolled in vocational education and training (VET) courses were women (794,200).<sup>17</sup>

In 2007, there were differences between men and women in chosen fields of study for vocational education and training (Table 2.7).

**Table 2.7: Vocational education and training students by field of education and gender, 2007**

	Women	Men
Natural and physical sciences	0.4	0.3
Information technology	1.4	2.9
Engineering and related technologies	3.4	29.0
Architecture and building	1.0	11.9
Agriculture, environmental and related studies	2.2	6.1
Health	6.6	3.8
Education	3.8	2.5
Management and commerce	27.1	14.1
Society and culture	15.2	4.7
Creative arts	3.3	2.0
Food, hospitality and personal services	13.1	7.4
Mixed field programmes	14.1	9.9
Not known	8.3	5.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Source: National Centre for Vocational Education Research 2008, *Australian vocational education and training statistics: Students and Courses, 2007*, NCVET, Adelaide, Table 5.

The most common courses undertaken by men were in the fields of Engineering and related technologies, Architecture and building, and Management and commerce. Women were concentrated in the fields of Management and commerce, Society and culture, Food, hospitality and personal services, and Mixed field programmes.

## **Australian apprenticeships and traineeships Commencements**

The number of women who commenced a new apprenticeship or traineeship in the 12 months to 31 August 2008 was 115,800, 5 per cent higher than the 110,300 commencements recorded for women in the 12 months prior to 31 August 2007.<sup>18</sup>

### **In-training**

In 2007, there were 136,850 women in apprentices and traineeships, representing 33.0 per cent of all apprentices and trainees in-training.<sup>19</sup>

Table 2.8 shows the number of men and women in apprenticeships and traineeships in 2007 by occupation group. Just over 61 per cent of all male apprenticeships and traineeships were in the Tradespersons and related workers occupation group, compared to 16.5 per cent of female apprenticeships and traineeships. Women's apprenticeships and traineeships were concentrated in the Intermediate clerical, sales and service workers occupation group.

**Table 2.8: Apprenticeships and traineeships in-training by occupation group and gender, 2007**

<b>Occupation</b>	<b>Women</b>	<b>Men</b>	<b>Total</b>
Managers and administrators	1,060	2,250	3,300
Professionals	1,950	2,860	4,810
Associate professionals	16,190	15,140	31,330
Tradespersons and related workers	22,620	169,840	192,460
Advanced clerical and service workers	4,990	1,880	6,870
Intermediate clerical, sales and service workers	64,710	27,500	92,210
Intermediate production and transport workers	5,160	33,410	38,560
Elementary clerical, sales and service workers	12,850	7,260	20,110
Labourers and related workers	7,330	17,400	24,730
<b>Total</b>	<b>136,850</b>	<b>277,540</b>	<b>414,390</b>

Source: National Centre for Vocational Education Research 2008, *Atlas of Australian public VET – Australia data, 2007*, NCVET, Adelaide, Table 2.2.

## References

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- <sup>1</sup> Australian Bureau of Statistics, *2008 Year Book Australia*, ABS, Canberra, 2008.
- <sup>2</sup> Australian Bureau of Statistics, *Schools, Australia, 2007, Catalogue No. 4221.0*, ABS, Canberra, 2008. Figures do not include students categorised as 'ungraded'.
- <sup>3</sup> Ibid.
- <sup>4</sup> Australian Bureau of Statistics, *Education and Work, May 2008*, Catalogue No. 6227.0, ABS, Canberra, 2008, Table 8. The reference population is those aged 15-64 years
- <sup>5</sup> Australian Bureau of Statistics, *Education and Work, May 2007*, Catalogue No. 6227.0, ABS, Canberra, 2008, Table 8.
- <sup>6</sup> Department of Education, Employment and Workplace Relations, *Students 2007 (full year): Selected Higher Education Statistics*, DEEWR, Canberra, Table 21.
- <sup>7</sup> Ibid, Table 46.
- <sup>8</sup> Department of Education, Employment and Workplace Relations *Award Course Completions 2007: Selected Higher Education Statistics*, DEEWR, Canberra, Table 6.
- <sup>9</sup> Graduate Careers Australia, *GradStats, Number 13*, December 2008, GCA, Melbourne, 2008, Table 1a.
- <sup>10</sup> Ibid.
- <sup>11</sup> Graduate Careers Australia, *GradStats, Number 13*, December 2008, GCA, Melbourne, 2008.
- <sup>12</sup> Ibid.
- <sup>13</sup> Ibid, Table 4.
- <sup>14</sup> Australian Bureau of Statistics, *Average Weekly Earnings, August 2008*, Catalogue No. 6302.0. ABS, Canberra, 2008, Table 2.
- <sup>15</sup> Ibid.
- <sup>16</sup> *Postgraduate Destinations 2007: A Report on the Work and Study Outcomes of Postgraduates*, Graduate Careers Australia, Melbourne, Table 26.
- <sup>17</sup> National Centre for Vocational Education Research, *Australian vocational education and training statistics: Students and courses 2007*, NCVET, Adelaide, 2007.
- <sup>18</sup> Ibid, Table 10.
- <sup>19</sup> National Centre for Vocational Education Research, *Atlas of Australian public VET – Australia data*, NCVET, Adelaide, 2007, Table 2.1.