

## Submission

by the National Centre for Vocational Education Research (NCVER)

to

Standing Committee on Employment and Workplace Relations, House of Representatives

### Pay equity and associated issues related to increasing female participation in the workforce

The National Centre for Vocational Education Research (NCVER) is responsible for collecting and managing national VET provider and New Apprenticeship statistics, and managing national surveys of graduates and students, and employers' views of training. We undertake a strategic program of research, and collect and provide VET research findings from Australian and international sources through the Vocational Education and Training Research Database (VOCED).

#### RESPONSE TO TERMS OF REFERENCE

Rather than comment specifically on the terms of reference we provide information from our statistical collections and research work that relates to female participation in vocational education and training and outcomes in the workforce.

#### Research

##### *Completed research*

- There is a study which explores issues concerned with the employment outcomes from vocational education, and which specifically focuses on earnings and occupations of male and female graduates. The research addresses questions such as why is there a gap in full-time earnings between male and female graduates; why does gaining a TAFE qualification appear not to provide a relative benefit for some female graduates in some industries; is occupational gender segmentation the reason for differences in male and female graduate earnings; is the VET system reinforcing occupational gender segregation by encouraging males and females into different streams of study. The study presents findings based on analysis of national data and also includes findings on an industry by industry basis.

##### **Reference**

Dumbrell, T, De Montfort, R, Finnegan, W, Wright P, 2000, *Still not equal: A study of differences in male and female TAFE graduates' earnings in Australia*. NCVER, Adelaide. Available at: <http://www.ncver.edu.au/publications/424.html>

The research identified below has been consolidated by NCVER into a publication of research readings:

- In the chapter titled 'Equity in VET', Dumbrell et al set out to translate the mass of statistical data in the VET system into a clear, big picture which provides an understanding of how the different equity target groups have fared over recent years in relation to each other, and to the general body of VET students. Through analysis of vocational education and training, economic and social data, it examines performance to determine participation, achievements and employment outcomes by group and sub-group to identify whether the target groups as currently identified are justified in remaining as equity categories.

##### **Reference**

Dumbrell, T, De Montfort, R, Finnegan, W, 2004, *Equity in VET: An overview of the data for designated equity groups*, in *Equity in vocational education and training: Research readings*, Ed. K Bowman, pp 19-42. NCVER, Adelaide. Available at: <http://www.ncver.edu.au/publications/1389.html>

- The chapter by Dickie and Fitzgerald, titled 'Choice, participation, outcomes: Women in VET 2003', is based on a consultation report prepared by Quay Connection for the Australian

National Training Authority. Focus is on the findings from four research and consultation processes undertaken between April 2002 and February 2003, which supported addressing issues for women in vocational education and training through annual VET planning and reporting processes.

#### **Reference**

Dickie, M and Fitzgerald I, 2004, *Choice, participation, outcomes: Women in VET 2003*, in [Equity in vocational education and training: Research readings](#), Ed. K Bowman, pp 43-60. NCVET, Adelaide. Available at: <http://www.ncver.edu.au/publications/1389.html>

- The chapter by B Golding, titled 'Who's doing the hunting and gathering?', examines patterns of gender segmentation in adult, community and vocational learning in small and remote towns in Victoria.

#### **Reference**

Golding, B, 2004, *Who's doing the hunting and gathering?: An exploration of gender segmentation of adult learning in small and remote communities*, in [Equity in vocational education and training: Research readings](#), Ed. K Bowman, pp 225-241. NCVET, Adelaide. Available at: <http://www.ncver.edu.au/publications/1389.html>

- Finally, the chapter by D John, 'Quantifying the impact of equity overlap in VET', attempts to address the lack of empirical analysis which quantifies the impact of diversity within student equity groups on the likelihood of success within vocational education and training. Using the national VET providers' data collection, the primary student characteristics which affect subject outcomes are examined, and their impact on the likelihood of success is identified for each of the main designated student equity groups, and also overlapping subsets of these groups. The designated groups include women, people within rural and remote Australia, people who are Indigenous, people who have a disability, and people from a non-English speaking background. In addition, two other student groups previously identified as 'at risk' groups—unemployed students, and students aged 19 years or less—are considered.

#### **Reference**

John, D, 2004, *Quantifying the impact of equity overlap in VET*, in [Equity in vocational education and training: Research readings](#), Ed. K Bowman, pp 242-259. NCVET, Adelaide. Available at: <http://www.ncver.edu.au/publications/1389.html>

### *Work in progress*

- '*Low paid workers and VET: Increasing VET participation amongst lower paid workers over the life-cycle*' – this is a three-year research program that will examine ways in which lower paid and lower educated individuals on the lower rungs of occupational ladders can be motivated to increase their participation in vocational education and training (VET) in the context of changing patterns of work, home and community life in Australia. It focuses on the characteristics, impacts and strategic responses concerning VET (and consequently the labour market) participation of these groups. The broad research question is: 'how do changing work, home and community structures impact on the participation of lower educated and low paid groups in VET, and what responses are appropriate?' Results of the literature review and initial statistics are expected to be ready by mid August 2008. More information can be found at: <http://www.ncver.edu.au/workinprogress/projects/10404.html>
- '*What would it take? Employers' perspectives on growing their labour supply with equity groups*' – this study, to be conducted over one year, aims to identify and analyse employer perspectives on what would facilitate employment pathways or opportunities for equity groups, and to determine the training and other complementary policy measures likely to support employers in their efforts to assist employees from equity groups to become sustainable workforce participants. In brief, the research aims to discover 'what it would take' to persuade employers to employ individuals from target cohorts which have traditionally been marginalised. The two main research questions are 1) what influences employers to include (or exclude) people from equity groups into their workforce mix? And 2) can VET policies, programs and practices affect employers' judgments and practices in relation to employment of people from equity groups? The estimated release date for the

publication of this research is 30 June 2009. More information can be found at:  
<http://www.ncver.edu.au/workinprogress/projects/10412.html>

## Data

Data that compare males and females are presented under the following sections:

- Vocational education and training students
- Apprentices and trainees
- Outcomes of vocational education and training graduates

### Vocational education and training students

The following tables show the number of student enrolments by sex between 2003 and 2007. Table 1 presents the number of students by qualification level. Table 2 presents the number of students by broad field of education area.

**Table 1: Number of students by qualifications by sex<sup>(a)</sup>, 2003 to 2007**

<b>Total</b>	2003	2004	2005	2006	2007
<b>AQF qualifications<sup>(b)</sup></b>					
Diploma or higher	188 534	175 971	173 112	167 680	165 965
Certificate IV	198 470	189 600	179 133	177 610	188 665
Certificate III	400 454	408 138	437 715	463 549	476 785
Certificate II	265 283	249 301	249 264	292 559	281 619
Certificate I	88 995	85 165	96 662	98 344	100 055
AQF sub-total	1141 736	1108 175	1135 886	1199 742	1213 089
<b>Non-AQF qualifications<sup>(b)</sup></b>					
Other recognised courses	325 152	294 405	277 509	279 913	251 097
Non-award courses	160 376	128 341	94 678	90 682	87 410
Subject only – no qualification <sup>(c)</sup>	100 304	75 443	142 687	105 627	113 422
Non-AQF sub-total	585 832	498 189	514 874	476 222	451 929
<b>Male</b>					
	2003	2004	2005	2006	2007
<b>AQF qualifications<sup>(b)</sup></b>					
Diploma or higher	91 696	85 031	81 548	77 460	75 891
Certificate IV	96 355	89 688	83 696	82 297	87 685
Certificate III	220 277	229 498	250 388	268 641	276 907
Certificate II	132 851	125 449	124 653	149 022	139 807
Certificate I	48 761	47 044	53 541	54 896	55 040
AQF sub-total	589 940	576 710	593 826	632 316	635 330
<b>Non-AQF qualifications<sup>(b)</sup></b>					
Other recognised courses	181 354	162 690	149 788	148 593	132 510
Non-award courses	80 707	71 287	60 298	60 672	54 281
Subject only – no qualification <sup>(c)</sup>	28 236	23 215	48 016	36 609	45 892
Non-AQF sub-total	290 297	257 192	258 102	245 874	232 683
<b>Female</b>					
	2003	2004	2005	2006	2007
<b>AQF qualifications<sup>(b)</sup></b>					
Diploma or higher	96 745	90 755	91 532	90 196	90 023
Certificate IV	101 727	99 616	95 271	95 172	100 883
Certificate III	179 144	177 737	186 856	194 490	199 490
Certificate II	131 556	123 230	124 184	143 240	141 532
Certificate I	39 838	37 793	42 859	43 174	44 799
AQF sub-total	549 010	529 131	540 702	566 272	576 727
<b>Non-AQF qualifications<sup>(b)</sup></b>					
Other recognised courses	142 957	131 246	127 453	131 284	118 424
Non-award courses	77 212	55 106	33 872	29 999	32 831
Subject only – no qualification <sup>(c)</sup>	70 639	51 365	92 711	68 106	66 231
Non-AQF sub-total	290 808	237 717	254 036	229 389	217 486

**Source:** National VET provider collection, 2007

**Table 2: Number of students by field of education by sex<sup>(a)</sup>, 2003 to 2007**

<b>Total</b>	2003	2004	2005	2006	2007
Natural and physical sciences	6 372	6 255	5 711	5 505	5 871
Information technology	72 864	62 279	57 900	56 991	36 598
Engineering and related technologies	261 443	258 333	263 497	284 793	278 835
Architecture and building	100 525	101 747	104 404	111 983	111 947
Agriculture, environmental and related studies	82 803	79 452	81 016	77 423	70 554
Health	103 708	81 346	78 039	80 168	85 207
Education	58 116	51 023	47 804	46 748	51 460
Management and commerce	370 304	332 378	316 103	324 478	337 881
Society and culture	183 866	163 859	163 270	170 580	161 945
Creative arts	58 628	48 541	44 181	44 381	44 062
Food, hospitality and personal services	160 204	153 114	151 906	166 472	169 187
Mixed field programmes	168 431	192 594	194 242	200 815	198 049
Subject only – no field of education <sup>(c)</sup>	100 304	75 443	142 687	105 627	113 422
<b>Total</b>	<b>1727 568</b>	<b>1606 364</b>	<b>1650 760</b>	<b>1675 964</b>	<b>1665 018</b>

  

<b>Male</b>	2003	2004	2005	2006	2007
Natural and physical sciences	2 665	2 659	2 400	2 210	2 324
Information technology	46 071	39 344	35 679	36 238	25 312
Engineering and related technologies	227 184	228 456	236 728	256 659	251 536
Architecture and building	88 832	90 992	95 163	103 340	103 547
Agriculture, environmental and related studies	62 346	60 053	61 816	58 799	53 189
Health	57 549	40 003	35 573	34 477	33 001
Education	24 100	20 676	18 751	19 102	21 553
Management and commerce	131 813	117 702	112 798	115 018	122 776
Society and culture	49 467	44 293	44 168	45 003	40 728
Creative arts	23 733	18 044	17 213	17 651	17 554
Food, hospitality and personal services	64 985	62 520	60 999	65 253	64 634
Mixed field programmes	73 256	85 945	82 624	87 831	85 967
Subject only – no field of education <sup>(c)</sup>	28 236	23 215	48 016	36 609	45 892
<b>Total</b>	<b>880 237</b>	<b>833 902</b>	<b>851 928</b>	<b>878 190</b>	<b>868 013</b>

  

<b>Female</b>	2003	2004	2005	2006	2007
Natural and physical sciences	3 703	3 592	3 308	3 295	3 546
Information technology	26 556	22 639	22 137	20 717	11 278
Engineering and related technologies	33 534	29 107	26 491	28 000	27 108
Architecture and building	11 670	10 740	9 176	8 599	8 313
Agriculture, environmental and related studies	20 304	19 305	19 120	18 554	17 315
Health	45 107	40 745	42 366	45 667	52 100
Education	33 688	30 184	28 918	27 603	29 812
Management and commerce	236 975	213 639	202 987	209 133	214 857
Society and culture	133 814	119 329	118 952	125 418	121 086
Creative arts	34 854	30 452	26 963	26 723	26 496
Food, hospitality and personal services	94 564	90 139	90 724	101 112	104 432
Mixed field programmes	94 410	105 612	110 885	112 734	111 639
Subject only – no field of education <sup>(c)</sup>	70 639	51 365	92 711	68 106	66 231
<b>Total</b>	<b>839 818</b>	<b>766 848</b>	<b>794 738</b>	<b>795 661</b>	<b>794 213</b>

**Source:** National VET provider collection, 2007

## ENDNOTES

- a. Unknown data have not been reported, whereas the Total includes all students, including those with unknown status. Hence, some figures may not sum to the Total.
  - b. For consistency of reporting senior secondary education has been excluded from AQF qualifications. It has been included as part of 'Other recognised courses' in the non-AQF qualifications grouping. As a result, the number of qualifications completed in AQF and non-AQF qualifications may not match those previously reported in earlier publications.
  - c. From 2005, NSW ACE implemented changes in the way that it reported non-nationally accredited courses, i.e. from reporting 'pseudo' courses to reporting module-only enrolments. This is in line with the AVETMIS Standard. This change in reporting practice has resulted in increases in the number of students enrolled in subjects only and in lower-level AQF qualifications.
- \* Due to rounding some figures may not sum.

## Apprentices and trainees

The following tables show the number of apprentice and trainee commencements between 2000 and 2007. Tables 3 to 6 present the number of apprentices and trainees in-training and the number of commencements, completions, cancellations and withdrawals. Table 7 shows the number of Apprentice and trainee commencements by selected training characteristics and Table 8 presents the number of commencements by training packages (group by Industry Skills Councils).

### Apprentice and trainee commencements, by selected training characteristics

**Table 3: Apprentices and trainees in training as at 31 December 2000 to 2007, by sex**

	Females	Males	Not known	Total	Proportion of Females (%)
2000	91 044	193 594	1	284 639	32.0
2001	108 091	211 206	1	319 298	33.9
2002	129 177	234 000	5	363 182	35.6
2003	141 769	248 709	13	390 491	36.3
2004	134 564	253 260	14	387 838	34.7
2005	131 755	260 700	9	392 464	33.6
2006	131 514	268 224	7	399 745	32.9
2007	133 585	271 942	2	405 529	32.9

**Source:** National apprentice and trainee collection, March 2008 estimates

**Table 4: Apprentices and trainees commencements 12 months ending 31 December 2000 to 2007, by sex**

	Females	Males	Not known	Total	Proportion of Females (%)
2000	87 041	123 184	0	210 225	41.4
2001	96 221	127 740	0	223 961	43.0
2002	114 913	149 640	5	264 558	43.4
2003	122 001	156 248	13	278 262	43.8
2004	104 921	152 250	5	257 176	40.8
2005	107 557	154 454	2	262 013	41.1
2006	109 869	156 451	1	266 321	41.3
2007	114 269	161 953	0	276 222	41.4

**Source:** National apprentice and trainee collection, March 2008 estimates

**Table 5: Apprentices and trainees completions 12 months ending 31 December 2000 to 2007, sex**

	Females	Males	Not known	Total	Proportion of Females (%)
2000	36 073	49 703	0	85 776	42.1
2001	40 666	54 202	0	94 868	42.9
2002	49 583	65 521	0	115 104	43.1
2003	56 014	71 917	1	127 932	43.8
2004	60 737	76 710	0	137 447	44.2
2005	60 767	75 952	7	136 726	44.4
2006	61 595	79 666	3	141 264	43.6
2007	62 799	82 912	3	145 714	43.1

**Source:** National apprentice and trainee collection, March 2008 estimates

**Table 6: Apprentices and trainees cancellations and withdrawals 12 months ending 31 December 2000 to 2007, sex**

	Females	Males	Not known	Total	Proportion of Females (%)
2000	33 108	51 811	0	84 919	39.0
2001	37 290	56 608	0	93 898	39.7
2002	43 627	63 450	1	107 078	40.7
2003	53 707	72 538	3	126 248	42.5
2004	50 943	75 171	2	126 116	40.4
2005	48 523	76 277	0	124 800	38.9
2006	49 135	77 159	0	126 294	38.9
2007	51 797	83 439	0	135 236	38.3

**Source:** National apprentice and trainee collection, March 2008 estimates

Table 7: Apprentice and trainee commencements, by selected training characteristics<sup>(a)</sup>, 2002 to 2007 ('000)

All	2002	2003	2004	2005	2006	2007
<b>Age</b>						
19 years and under	99 403	104 373	106 404	108 248	109 521	114 282
20 to 24 years	49 154	48 501	44 994	45 658	46 315	48 264
25 to 44 years	85 416	90 363	76 266	77 073	78 109	80 769
45 years and over	30 585	35 025	29 512	31 034	32 376	32 907
<b>AQF qualification level</b>						
Certificate I or II	73 457	64 518	51 322	48 089	44 253	41 896
Certificate III	170 151	188 640	177 965	185 108	187 556	196 639
Certificate IV	20 367	24 289	27 147	27 908	33 408	35 167
Diploma/Advanced diploma	583	815	742	908	1 104	2 521
<b>Trade and non-trade occupations</b>						
Tradespersons and related workers <sup>(b)</sup>	55 059	61 931	72 154	74 994	77 911	82 883
<i>Certificate III and above</i>	<i>53 440</i>	<i>59 251</i>	<i>70 855</i>	<i>74 030</i>	<i>77 051</i>	<i>81 982</i>
<i>Certificate I and II</i>	<i>1 619</i>	<i>2 680</i>	<i>1 299</i>	<i>964</i>	<i>860</i>	<i>900</i>
Non-trades <sup>(c)</sup>	209 499	216 331	185 022	187 019	188 410	193 339
<b>Occupation (ASCO) group</b>						
Managers, administrators and professionals	3 335	5 206	5 892	4 110	6 081	9 102
Associate professionals	20 032	22 010	20 111	21 144	23 221	24 308
Trades and related workers	55 059	61 931	72 154	74 994	77 911	82 883
Advanced clerical and service workers	6 201	5 030	4 306	5 699	5 524	5 024
Intermed. clerical, sales and service workers	96 884	102 020	79 445	82 720	83 686	88 684
Intermed. production and transport workers	32 917	32 703	32 608	30 376	27 391	26 994
Element. clerical, sales and service workers	21 883	21 150	19 007	17 645	17 782	16 130
Labourers and related workers	28 247	28 212	23 653	25 325	24 725	23 098
<b>Full-time status</b>						
Full-time	190 791	201 546	191 988	194 717	197 850	202 941
Part-time	73 533	76 439	64 970	67 051	68 294	73 019
<b>Existing worker</b>						
Existing worker	70 683	79 589	65 843	67 137	69 111	71 326
Newly commencing worker	193 569	198 545	191 209	194 871	197 210	204 893
<b>Training package coverage</b>						
Training package	250 491	266 515	248 410	255 639	261 273	271 121
Non-training package	14 067	11 747	8 766	6 374	5 048	5 101
<b>Total<sup>(d)</sup></b>	<b>264 558</b>	<b>278 262</b>	<b>257 176</b>	<b>262 013</b>	<b>266 321</b>	<b>276 222</b>

Cont. Table 7

Females	2002	2003	2004	2005	2006	2007
<b>Age</b>						
19 years and under	40 936	42 242	41 045	42 185	42 273	44 534
20 to 24 years	21 442	20 860	18 412	18 849	19 247	20 309
25 to 44 years	37 476	40 466	30 981	31 297	32 080	32 696
45 years and over	15 059	18 433	14 483	15 226	16 269	16 731
<b>AQF qualification level</b>						
Certificate I or II	34 499	30 204	23 390	22 172	21 018	19 838
Certificate III	68 052	77 378	66 170	69 611	69 955	73 980
Certificate IV	11 877	13 764	14 747	15 007	17 933	18 176
Diploma/Advanced diploma	485	655	614	767	963	2 276
<b>Trade and non-trade occupations</b>						
Tradespersons and related workers <sup>(b)</sup>	7 966	8 652	10 787	10 908	10 905	11 898
<i>Certificate III and above</i>	7 625	8 198	10 358	10 521	10 516	11 568
<i>Certificate I and II</i>	341	454	429	387	389	330
Non-trades <sup>(c)</sup>	106 947	113 349	94 134	96 649	98 964	102 371
<b>Occupation (ASCO) group</b>						
Managers, administrators and professionals	1 708	2 300	2 481	1 749	2 297	3 163
Associate professionals	10 485	11 627	10 157	10 546	11 943	12 531
Trades and related workers	7 966	8 652	10 787	10 908	10 905	11 898
Advanced clerical and service workers	4 898	3 640	3 066	4 188	4 065	3 735
Intermed. clerical, sales and service workers	66 812	72 235	56 098	57 919	58 750	61 842
Intermed. production and transport workers	4 207	4 238	4 522	4 295	3 713	3 673
Element. clerical, sales and service workers	11 072	10 995	11 002	10 615	11 109	10 423
Labourers and related workers	7 765	8 314	6 808	7 337	7 087	7 004
<b>Full-time status</b>						
Full-time	67 384	71 480	61 834	63 279	64 293	66 001
Part-time	47 514	50 456	43 044	44 245	45 551	48 241
<b>Existing worker</b>						
Existing worker	30 285	36 950	26 638	27 536	28 417	29 693
Newly commencing worker	84 492	84 998	78 229	80 019	81 452	84 577
<b>Training package coverage</b>						
Training package	110 134	118 504	102 740	105 784	108 121	112 520
Non-training package	4 779	3 497	2 181	1 773	1 748	1 750
<b>Total<sup>(d)</sup></b>	<b>114 913</b>	<b>122 001</b>	<b>104 921</b>	<b>107 557</b>	<b>109 869</b>	<b>114 269</b>

Cont. Table 7

<b>Males</b>	2002	2003	2004	2005	2006	2007
<b>Age</b>						
19 years and under	58 466	62 126	65 355	66 062	67 248	69 748
20 to 24 years	27 711	27 639	26 582	26 809	27 068	27 955
25 to 44 years	47 938	49 894	45 285	45 775	46 028	48 073
45 years and over	15 525	16 589	15 028	15 808	16 107	16 176
<b>AQF qualification level</b>						
Certificate I or II	38 956	34 308	27 930	25 915	23 235	22 058
Certificate III	102 096	111 257	111 793	115 497	117 601	122 659
Certificate IV	8 490	10 523	12 399	12 901	15 474	16 991
Diploma/Advanced diploma	98	160	128	141	141	245
<b>Trade and non-trade occupations</b>						
Tradespersons and related workers <sup>(b)</sup>	47 093	53 275	61 366	64 086	67 006	70 985
<i>Certificate III and above</i>	45 815	51 051	60 496	63 509	66 535	70 414
<i>Certificate I and II</i>	1 278	2 224	870	577	471	571
Non-trades <sup>(c)</sup>	102 547	102 973	90 884	90 368	89 445	90 968
<b>Occupation (ASCO) group</b>						
Managers, administrators and professionals	1 627	2 905	3 411	2 361	3 784	5 939
Associate professionals	9 547	10 382	9 953	10 598	11 277	11 777
Trades and related workers	47 093	53 275	61 366	64 086	67 006	70 985
Advanced clerical and service workers	1 303	1 390	1 240	1 511	1 459	1 288
Intermed. clerical, sales and service workers	30 069	29 783	23 346	24 801	24 936	26 842
Intermed. production and transport workers	28 710	28 464	28 085	26 081	23 678	23 321
Element. clerical, sales and service workers	10 811	10 155	8 004	7 030	6 673	5 708
Labourers and related workers	20 480	19 894	16 845	17 986	17 638	16 093
<b>Full-time status</b>						
Full-time	123 406	130 055	130 151	131 437	133 556	136 940
Part-time	26 015	25 981	21 924	22 805	22 743	24 778
<b>Existing worker</b>						
Existing worker	40 396	42 634	39 204	39 599	40 693	41 633
Newly commencing worker	109 075	113 539	112 976	114 852	115 758	120 316
<b>Training package coverage</b>						
Training package	140 352	147 999	145 665	149 853	153 151	158 601
Non-training package	9 288	8 249	6 585	4 601	3 300	3 351
<b>Total<sup>(d)</sup></b>	<b>149 640</b>	<b>156 248</b>	<b>152 250</b>	<b>154 454</b>	<b>156 451</b>	<b>161 953</b>

Source: National apprentice and trainee collection, March 2008 estimates

**Table 8: Apprentice and trainee commencements Commencements, 12 months ending 31 December 2002 to 2007 by training packages (grouped by industry skills councils), sex, Australia ('000)<sup>(d)</sup>**

	Total						Male						Female					
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007
<b>Agri-food</b>																		
Australian Meat Industry	8 629	8 113	8 435	8 823	8 452	8 007	7 290	6 570	6 668	6 855	6 592	6 178	1 339	1 542	1 767	1 968	1 860	1 829
Food Processing Industry	6 343	6 656	6 054	5 483	5 687	5 306	4 204	4 496	3 986	3 567	3 873	3 441	2 138	2 159	2 068	1 915	1 814	1 866
Horticulture	5 044	4 949	4 409	4 185	3 726	3 609	4 198	4 055	3 795	3 625	3 248	3 169	846	893	614	560	478	440
Rural Production	2 333	2 282	3 261	3 760	3 218	2 435	1 903	1 824	2 474	2 912	2 473	1 823	430	457	787	848	745	612
Other	1 332	1 485	1 302	1 308	1 369	1 648	677	852	695	624	617	758	655	633	607	684	752	890
Total	23 681	23 485	23 461	23 559	22 452	21 006	18 272	17 797	17 618	17 583	16 803	15 368	5 408	5 684	5 843	5 975	5 649	5 638
<b>Automotive</b>																		
Automotive Manufacturing	867	2 067	1 026	452	607	551	756	1 811	880	424	543	494	111	254	146	28	64	57
Automotive Retail, Service and Repair	12 238	12 958	14 187	13 730	13 712	14 149	11 545	12 281	13 477	13 142	13 119	13 408	693	676	710	588	593	741
Total	13 105	15 025	15 213	14 182	14 319	14 701	12 301	14 092	14 357	13 566	13 662	13 902	804	930	856	616	657	799
<b>Community services and Health</b>																		
Community Services	11 925	12 755	12 589	12 984	14 113	16 320	1 557	1 642	1 682	1 679	1 705	1 914	10 368	11 113	10 907	11 305	12 408	14 406
Health	89	1 184	4 004	4 328	4 147	3 961	13	225	801	815	615	514	76	959	3 203	3 513	3 532	3 447
Total	12 014	13 939	16 593	17 312	18 260	20 281	1 570	1 867	2 483	2 494	2 320	2 429	10 444	12 072	14 110	14 818	15 940	17 853
<b>Construction and Property Services</b>																		
Asset Maintenance	6 613	7 082	5 689	5 812	5 858	5 783	3 271	3 591	2 532	2 593	2 509	2 442	3 341	3 491	3 157	3 218	3 349	3 341
Asset Security	4 263	4 103	2 832	2 727	1 813	1 531	3 589	3 486	2 393	2 131	1 328	1 174	674	617	439	596	485	357
General Construction	9 016	10 353	12 020	11 671	12 307	14 294	8 907	10 228	11 866	11 541	12 136	14 016	109	125	154	130	171	278
Off-Site Construction	707	996	1 081	1 081	1 018	1 121	687	968	1 058	1 054	990	1 089	20	28	23	27	28	31
Other	1 265	1 254	1 834	3 814	5 429	6 466	489	491	1 019	3 001	4 557	5 537	776	763	815	813	872	929
Total	21 864	23 788	23 456	25 105	26 425	29 194	16 943	18 764	18 868	20 320	21 520	24 258	4 920	5 024	4 588	4 784	4 905	4 936
<b>Electrocomms and Energy Utilities</b>																		
Electricity Supply Industry - Transmission and Distribution	185	264	459	563	576	616	184	263	455	557	572	610	1	1	4	6	4	6
Electrotechnology Industry	5 203	6 299	7 726	8 706	9 697	10 412	5 129	6 217	7 631	8 582	9 550	10 207	74	82	95	124	147	204
Gas Industry	93	68	30	400	390	231	91	67	28	383	368	225	2	1	2	17	22	6
Other	27	8	14	12	6	3	27	8	14	11	6	3	0	0	0	1	0	0
Total	5 508	6 639	8 229	9 681	10 669	11 262	5 431	6 555	8 128	9 533	10 496	11 045	77	84	101	148	173	217
<b>Government</b>																		
Correctional Services	528	512	530	609	804	893	401	363	362	449	548	640	127	149	168	160	256	253
Local Government	313	242	336	324	432	418	164	124	200	167	276	247	149	118	136	157	156	172
Public Sector	637	972	1 177	1 390	1 658	1 066	219	392	553	576	579	294	418	580	624	814	1 079	771
Water Industry	315	214	599	338	355	331	302	212	585	324	345	320	13	2	14	14	10	11
Total	1 793	1 940	2 642	2 661	3 249	2 708	1 086	1 091	1 700	1 516	1 748	1 501	707	849	942	1 145	1 501	1 207

**Cont. Table 8**

**Innovation and Business**

Business Services	30 520	41 006	30 651	30 607	30 699	31 543	7 194	11 399	9 765	9 906	9 837	10 083	23 324	29 604	20 885	20 701	20 861	21 460
Financial Services	4 662	4 122	3 003	4 216	3 926	3 583	1 047	1 093	736	1 026	1 024	967	3 614	3 029	2 267	3 190	2 902	2 616
Information and Communications Technology	6 913	5 465	1 527	1 370	1 489	1 411	3 347	2 631	1 168	1 115	1 218	1 192	3 566	2 834	359	255	271	218
Telecommunications	9 617	9 485	7 701	8 313	9 105	9 532	3 875	3 595	3 207	3 879	4 300	4 696	5 742	5 890	4 494	4 434	4 805	4 835
Other	1 535	1 470	1 372	1 388	1 548	1 377	1 026	991	906	910	930	848	509	479	466	478	618	529
<b>Total</b>	<b>53 247</b>	<b>61 548</b>	<b>44 254</b>	<b>45 894</b>	<b>46 767</b>	<b>47 445</b>	<b>16 489</b>	<b>19 709</b>	<b>15 782</b>	<b>16 836</b>	<b>17 309</b>	<b>17 787</b>	<b>36 755</b>	<b>41 836</b>	<b>28 471</b>	<b>29 058</b>	<b>29 457</b>	<b>29 658</b>

**Manufacturing**

Metal and Engineering Industry	8 659	9 580	11 119	12 249	12 231	12 534	8 283	9 266	10 824	11 932	11 904	12 220	376	313	295	317	327	314
Plastics, Rubber and Cablemaking	1 232	3 355	8 108	6 703	4 411	4 446	968	2 701	6 375	5 342	3 616	3 553	264	654	1 733	1 361	795	894
Other	3 162	3 799	5 001	6 039	9 002	9 758	2 091	2 889	4 228	5 023	7 655	8 387	1 071	910	772	1 016	1 347	1 370
<b>Total</b>	<b>13 053</b>	<b>16 734</b>	<b>24 228</b>	<b>24 991</b>	<b>25 644</b>	<b>26 738</b>	<b>11 342</b>	<b>14 856</b>	<b>21 427</b>	<b>22 297</b>	<b>23 175</b>	<b>24 160</b>	<b>1 711</b>	<b>1 877</b>	<b>2 800</b>	<b>2 694</b>	<b>2 469</b>	<b>2 578</b>

**Services**

Beauty	342	490	569	627	646	662	2	3	1	4	5	3	340	487	568	623	641	659
Hairdressing	4 027	4 625	5 404	5 679	5 625	6 279	308	371	430	414	401	462	3 719	4 254	4 974	5 265	5 224	5 817
Hospitality	21 423	21 175	20 677	20 697	20 578	22 843	9 316	9 161	9 058	9 020	8 940	9 788	12 107	12 014	11 619	11 677	11 638	13 055
Retail	41 677	40 165	32 818	32 691	33 292	31 734	15 881	14 791	12 075	11 672	11 939	11 562	25 796	25 374	20 742	21 019	21 353	20 171
Other	3 721	4 408	5 493	5 984	6 988	8 292	1 413	1 540	1 893	2 146	2 560	3 081	2 308	2 868	3 599	3 838	4 428	5 210
<b>Total</b>	<b>71 190</b>	<b>70 863</b>	<b>64 961</b>	<b>65 678</b>	<b>67 129</b>	<b>69 810</b>	<b>26 920</b>	<b>25 866</b>	<b>23 457</b>	<b>23 256</b>	<b>23 845</b>	<b>24 896</b>	<b>44 270</b>	<b>44 997</b>	<b>41 502</b>	<b>42 422</b>	<b>43 284</b>	<b>44 912</b>

**SkillsDMS**

Civil Construction	2 870	1 586	1 415	1 819	1 645	2 228	2 839	1 564	1 398	1 789	1 615	2 165	31	22	17	30	30	63
Extractive Industry	147	123	248	397	351	271	144	121	241	377	335	260	3	2	7	20	16	11
Metalliferous Mining	215	369	327	460	440	723	199	337	300	419	377	654	16	32	27	41	63	68
Other	119	105	91	156	229	731	115	99	88	148	218	686	4	6	3	8	11	45
<b>Total</b>	<b>3 351</b>	<b>2 183</b>	<b>2 081</b>	<b>2 832</b>	<b>2 665</b>	<b>3 953</b>	<b>3 297</b>	<b>2 121</b>	<b>2 027</b>	<b>2 733</b>	<b>2 545</b>	<b>3 765</b>	<b>54</b>	<b>62</b>	<b>54</b>	<b>99</b>	<b>120</b>	<b>187</b>

**Transport and Logistics**

Transport and Distribution	26 966	26 012	21 177	21 227	21 300	21 092	23 545	22 366	18 148	17 855	18 058	17 535	3 421	3 645	3 028	3 372	3 242	3 557
Other	39	77	53	136	416	259	36	69	48	105	264	208	3	8	5	31	152	51
<b>Total</b>	<b>27 005</b>	<b>26 089</b>	<b>21 230</b>	<b>21 363</b>	<b>21 716</b>	<b>21 351</b>	<b>23 581</b>	<b>22 435</b>	<b>18 196</b>	<b>17 960</b>	<b>18 322</b>	<b>17 743</b>	<b>3 424</b>	<b>3 653</b>	<b>3 033</b>	<b>3 403</b>	<b>3 394</b>	<b>3 608</b>

Training packages not assigned to industry skills councils

	4 680	4 282	2 062	2 381	1 978	2 672	3 120	2 846	1 622	1 759	1 406	1 747	1 560	1 436	440	622	572	927
Training package qualifications total	250	266	248	255	261	271	140	147	145	149	153	158	110	118	102	105	108 121	112 520
	491	515	410	639	273	121	352	999	665	853	151	601	134	504	740	784		
Non-training package qualifications total	14 067	11 747	8 766	6 374	5 048	5 101	9 288	8 249	6 585	4 601	3 300	3 351	4 779	3 497	2 181	1 773	1 748	1 750
<b>Total</b>	<b>264</b>	<b>278</b>	<b>257</b>	<b>262</b>	<b>266</b>	<b>276</b>	<b>149</b>	<b>156</b>	<b>152</b>	<b>154</b>	<b>156</b>	<b>161</b>	<b>114</b>	<b>122</b>	<b>104</b>	<b>107</b>	<b>109 869</b>	<b>114 269</b>
	558	262	176	013	321	222	640	248	250	454	451	953	913	001	921	557		

**Source:** National apprentice and trainee collection, March 2008 estimates

## ENDNOTES

- a. Due to the introduction of the existing worker flag and the full-time identifier into the collection from 2002, this table is provided for 2002 to 2007 only.
  - b. Trade occupations are defined as all Tradespersons and related workers (ASCO 2nd edition).
  - c. Non-trade occupations are defined as all ASCO 2nd edition occupations with the exception of Tradespersons and related workers (i.e. major groups 1-3 and 5-9).
  - d. Unknown data have not been reported, whereas the Total includes all contracts, including those with unknown status. Hence, some figures may not sum to the Total.
- \* Due to rounding some figures may not sum.

## **Student Outcomes Survey**

The following tables show employment and further study outcomes of graduates from all VET providers (including TAFE institutes and other government, private and community education providers). Table 9 presents outcomes of graduates six months after completing their training by sex. Table 10 presents outcomes of graduates by qualification and sex, and Table 11 presents outcomes of graduates by field of education and sex.

**Table 9: Outcomes of VET graduates six months after completing their training by sex**

	Females	Males	Total
<b>Employment outcomes</b>			
Employed (%)	77.3	84.6	81.1
Full-time (%)	36.3	66.5	51.8
Part-time (%)	40.1	17.3	28.4
Average Salary of those employed full-time <sup>a,c</sup> (\$)	37,800	45,700	43,000
Managers	43,900	51,200	48,900
Professionals	50,500	56,400	53,900
Technicians and Trades Workers	3,100	43,200	42,000
Community and Personal Service Workers	35,200	46,900	39,100
Clerical and Administrative Workers	37,800	47,300	40,500
Sales Workers	31,000	37,800	34,200
Machinery Operators and Drivers	42,700	49,200	48,800
Labourers	32,100	40,700	39,100
Employed at same or higher skill level after training <sup>b,c</sup> (%)	93.7	94.3	94.0
Employed in first full-time job <sup>c</sup> (%)	14.2	21.1	17.8
Employed and/or in further study <sup>c</sup> (%)	87.4	90.9	89.2
<b>Further study outcomes<sup>c</sup></b>			
In further study (%)	34.5	27.4	30.8
University	23.7	17.2	20.6
TAFE	53.6	58.5	55.9
Other provider	22.8	24.3	23.5
<b>Level of further study (%)<sup>d</sup></b>			
Bachelor or above	22.3	15.8	19.3
Diploma or Advanced Diploma	22.0	16.7	19.5
Certificate III-IV	33.6	39.9	36.5
Certificate I-II	8.5	9.7	9.0
Other	13.7	17.9	15.7
<b>Of those employed part-time before training</b>			
Employed full-time after training (%)	23.4	38.2	28.6
Average salary of those employed full-time <sup>a,c</sup> (\$)	32,300	34,900	33,500
Managers	31,800	33,800	32,500
Professionals	40,300	39,900	40,100
Technicians and Trades Workers	28,000	33,600	32,600
Community and Personal Service Workers	33,600	39,700	34,700
Clerical and Administrative Workers	32,100	34,200	32,400
Sales Workers	28,000	31,100	29,000
Machinery Operators and Drivers	39,900	39,700	39,800
Labourers	31,300	36,600	35,200
Employed in first full-time job <sup>c</sup> (%)	14.6	21.1	16.9
In further study <sup>c</sup> (%)	36.2	36.5	36.3
<b>Of those not employed before training</b>			
Employed after training (%)	45.5	54.3	49.4
Average salary of those employed full-time <sup>a,c</sup> (\$)	30,700	33,600	32,600
Managers	33,400	28,300	29,700
Professionals	36,600	40,000	38,600
Technicians and Trades Workers	26,700	34,000	33,200
Community and Personal Service Workers	30,800	34,300	31,600
Clerical and Administrative Workers	32,300	32,000	32,300
Sales Workers	27,200	26,100	26,700
Machinery Operators and Drivers	39,100	35,800	36,100
Labourers	26,300	32,500	31,300
Employed in first full-time job <sup>c</sup> (%)	6.5	14.6	10.2
In further study <sup>c</sup> (%)	37.5	34.1	36.0

**Source:** Student Outcomes Survey 2007

**Table 10: Outcomes of VET graduates six months after completing their training by qualification and sex<sup>a</sup>, 2007**

	Employed after training	Employed Full-time	Employed Part-time	Employed at same or higher skill level after training <sup>b,c</sup>	Employed in first full-time job <sup>c</sup>	Employed and/or in further study <sup>c</sup>	In further study <sup>c</sup>	Employed part-time before training and full-time after	Not employed before training and employed after training	Average salary of those employed full-time <sup>a,c</sup>
	%	%	%	%	%	%	%	%	%	\$
<b>Females</b>										
Qualification										
Diploma and above	84.5	43.9	40.2	93.3	13.4	92.1	34.0	12.4	11.0	43,300
Certificate III-IV	81.8	40.5	40.6	93.6	15.5	90.0	32.8	10.3	13.8	37,600
Certificate I-II	66.1	25.5	39.2	94.4	12.2	80.1	38.1	6.8	14.1	33,400
All qualifications	77.3	36.3	40.1	93.7	14.2	87.4	34.5	9.5	13.5	37,800
<b>Males</b>										
Qualification										
Diploma and above	84.9	61.5	22.9	93.4	19.2	92.7	34.0	10.1	10.0	52,400
Certificate III-IV	88.9	74.4	13.7	94.2	23.4	93.6	24.2	8.0	11.0	46,300
Certificate I-II	77.5	55.0	21.4	94.7	17.6	85.6	30.7	7.1	14.7	41,700
All qualifications	84.6	66.5	17.3	94.3	21.1	90.9	27.4	7.9	12.2	45,700
<b>Total</b>										
Qualification										
Diploma and above	84.7	51.5	32.7	93.4	15.9	92.3	34.0	11.4	10.5	48,000
Certificate III-IV	85.5	58.0	26.7	93.9	19.7	91.9	28.2	9.1	12.4	43,400
Certificate I-II	72.2	41.3	29.6	94.5	15.2	83.1	34.0	7.0	14.4	39,500
All qualifications	81.1	51.8	28.4	94.0	17.8	89.2	30.8	8.7	12.8	43,000

Source: Student Outcomes Survey 2007

**Table 11: Outcomes of VET graduates six months after completing their training by field of education and sex<sup>a</sup>, 2007**

Field of education	Employed after training	Employed Full-time	Employed Part-time	Employed at same or higher skill level after training <sup>b,c</sup>	Employed in first full-time job <sup>c</sup>	Employed and/or in further study <sup>c</sup>	In further study <sup>c</sup>	Employed part-time before training and full-time after	Not employed before training and employed after training	Average salary of those employed full-time <sup>a,c</sup>
	%	%	%	%	%	%	%	%	%	\$
<b>Females</b>										
Natural and Physical Sciences	74.7	34.5	38.5	90.0	13.3	87.6	44.6	8.2*	15.2	45,300
Information Technology	65.9	28.1	37.3	94.1	8.1	78.6	37.9	4.7	16.3	44,400
Engineering and Related Technologies	82.3	46.3	34.9	95.7	19.2	87.7	21.4	7.0	8.1	39,800
Architecture and Building	76.3	42.4	33.7	92.1	11.1	89.5	36.6	11.8	6.8*	36,000
Agriculture, Environmental and Related Studies	76.1	36.4	38.5	91.7	12.8	85.6	34.1	5.1	11.0	37,900
Health	88.1	39.0	48.8	95.7	15.2	94.2	32.6	12.8	10.3	39,100
Education	88.8	40.3	47.8	95.9	10.9	93.1	27.5	3.5	11.4	53,900
Management and Commerce	79.4	45.1	33.6	92.9	16.6	88.3	34.7	12.5	12.1	38,000
Society and Culture	79.6	31.5	47.1	93.4	12.6	89.3	35.7	8.1	16.2	37,700
Creative Arts	67.8	20.3	46.6	92.7	9.3	87.5	46.3	9.9	10.7	37,000
Food, Hospitality and Personal Services	78.2	33.6	43.2	94.4	16.3	85.4	31.2	9.7	16.7	30,900
Mixed Field Programs	48.8	11.2	36.1	95.1	4.8	74.9	43.8	3.3	14.8	33,900
All fields	77.3	36.3	40.1	93.7	14.2	87.4	34.5	9.5	13.5	37,800
<b>Males</b>										
Natural and Physical Sciences	77.7	50.7	27.0	100.0	12.4*	80.7	35.7	12.2*	15.6*	46,100
Information Technology	63.4	36.6	26.4	95.4	12.3	81.2	41.3	7.5	14.2	44,700
Engineering and Related Technologies	90.4	80.8	9.0	95.0	26.1	93.5	23.0	9.0	11.4	47,800
Architecture and Building	91.6	83.2	7.6	97.0	31.1	94.3	24.3	13.7	17.5	41,300
Agriculture, Environmental and Related Studies	88.9	72.8	14.9	93.3	21.8	93.2	21.9	5.3	9.6	42,500
Health	87.8	68.3	17.9	94.3	18.4	92.3	31.4	5.8*	7.6	53,800
Education	94.2	76.4	17.6	97.0	21.4	96.1	26.2	1.0*	3.1	61,300
Management and Commerce	82.9	61.5	20.7	92.8	17.3	90.5	32.0	7.2	9.8	46,300
Society and Culture	80.0	46.8	31.8	90.4	13.0	87.3	34.7	4.7	13.6	45,400
Creative Arts	70.7	26.1	44.0	94.0	10.7	87.4	45.1	11.4	13.8	35,600
Food, Hospitality and Personal Services	81.6	50.9	28.8	93.9	15.2	88.0	24.4	9.2	15.7	38,000
Mixed Field Programs	50.5	25.4	24.2	91.1	8.6	72.4	35.8	1.9*	20.4	33,600
All fields	84.6	66.5	17.3	94.3	21.1	90.9	27.4	7.9	12.2	45,700

<b>Total</b>										
Natural and Physical Sciences	75.8	40.3	34.3	93.7	13.0	85.1	41.4	9.7	15.3	45,700
Information Technology	64.3	33.6	30.2	95.0	11.0	80.4	40.2	6.5	14.9	44,600
Engineering and Related Technologies	89.4	76.7	12.1	95.1	25.3	92.8	22.8	8.7	11.0	47,300
Architecture and Building	90.6	80.6	9.3	96.7	29.8	94.0	25.1	13.6	16.8	41,200
Agriculture, Environmental and Related Studies	86.3	65.1	19.9	93.0	19.9	91.6	24.5	5.3	9.9	42,000
Health	88.1	46.4	41.0	95.4	16.0	93.7	32.3	11.0	9.6	44,500
Education	91.1	55.6	35.0	96.4	15.4	94.4	27.0	2.4	7.9	58,200
Management and Commerce	80.6	50.9	29.0	92.9	16.8	89.1	33.8	10.8	11.3	41,500
Society and Culture	79.7	35.3	43.3	92.6	12.7	88.8	35.5	7.3	15.6	40,300
Creative Arts	69.1	23.0	45.4	93.3	9.9	87.5	45.8	10.6	12.1	36,200
Food, Hospitality and Personal Services	79.5	40.1	37.8	94.2	15.9	86.4	28.6	9.5	16.3	34,400
Mixed Field Programs	49.4	16.2	31.9	93.9	6.1	74.1	41.1	2.8	16.8	33,700
All fields	81.1	51.8	28.4	94.0	17.8	89.2	30.8	8.7	12.8	43,000

**Source:** Student Outcomes Survey 2007

## ENDNOTES

- a. Average salaries are calculated using the midpoint from the salary ranges on the questionnaire.
- b. Skill level change is based on occupations defined by ANZSCO 2006.
- c. These questions are not asked of students from community education providers. Therefore, the percentage reported represents the proportion of graduates excluding those from community education providers.
  
- \* The estimate has a relative standard error greater than 25% and therefore should be used with caution.