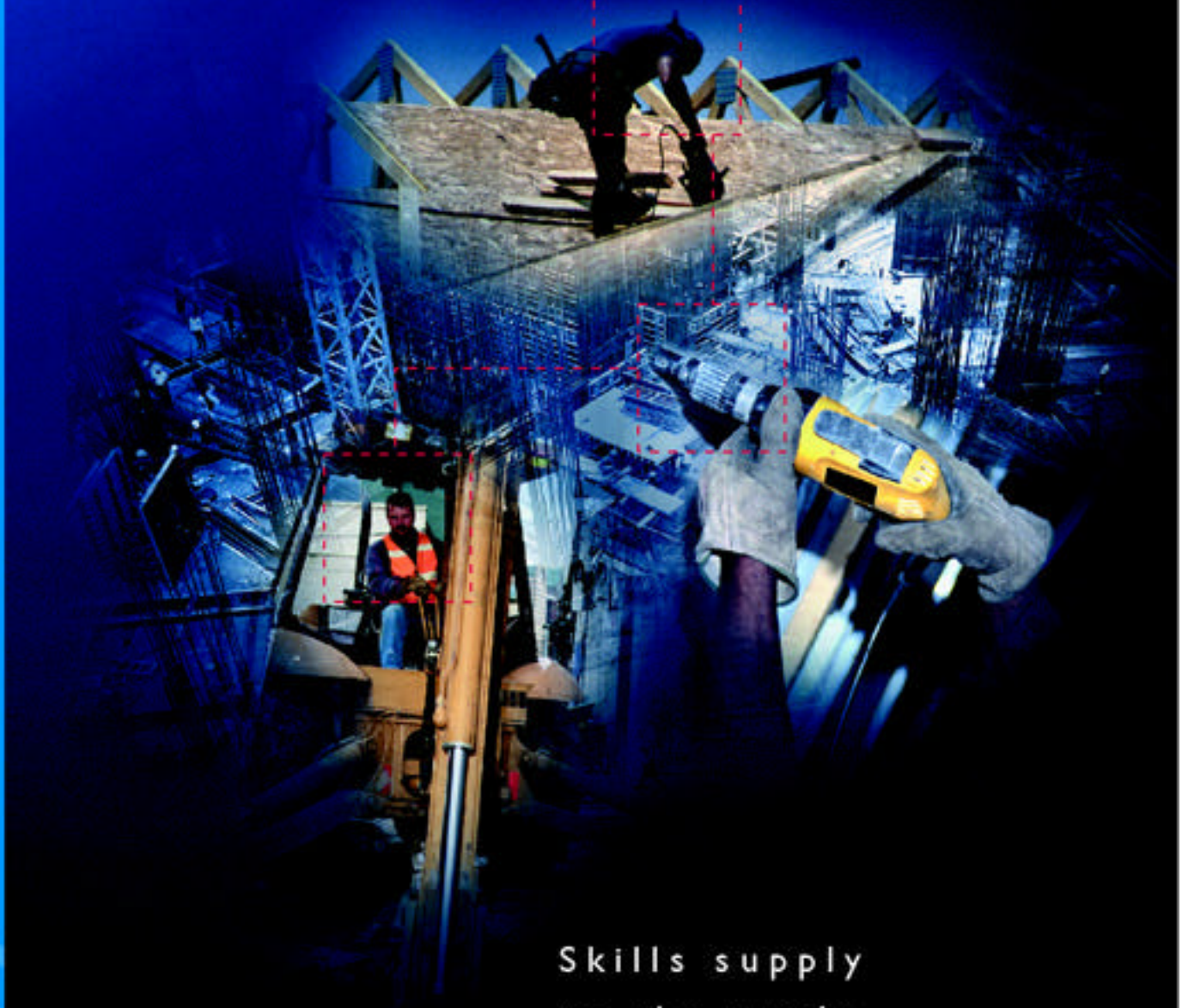
AUSTRALIAN VOCATIONAL EDUCATION & TRAINING

NCVER

Australian **apprentice** and **trainee** statistics



Skills supply to the trade industries 1995 – 1999

1995-1999

Australian National Training Authority

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NCVER Ltd.,
252 Kensington Road,
LEABROOK S.A. 5068
Australia



E-mail: vet_req@ncver.edu.au
Telephone: (08) 8333 8400
Facsimile: (08) 8331 9211
Web page: http://www.ncver.edu.au

Foreword

Australian Apprentice & Trainee Statistics: Skills Supply to the Trade Industries 1995 to 1999

Increasing attention is again being paid to the development of apprenticeships and traineeships in Australia's vocational education and training system, particularly following the introduction of New Apprenticeships from 1 January 1998 and the rapid expansion of traineeships.

Whilst there has been much information made available about apprenticeships and traineeships generally, there is growing interest and necessity for more detailed information relating specifically to apprenticeships and traineeships servicing the trade industries. This information is needed to better ascertain skill supply and demand levels and to better plan for the future supply of skills required by the trade industries.

Recent findings have shown that the great majority of apprenticeships are still in 'traditional' trade areas with 98% of apprentices who responded to the 1998 Graduate Destination Survey having completed an AQF level III or equivalent or higher level course. Other data also reveal that of all apprentices and trainees in-training in 1998, just under two thirds were in 'traditional' trade areas with slightly higher proportions for the 15 to 19 and 20 to 24 year old age cohorts. Whilst the tradespersons and related workers occupation category showed very small overall growth in the number in-training over the period 1995 to 1998, within this occupation category some areas such as food tradespersons and electrical and electronics tradespersons grew whilst others such as construction tradespersons and 'other' tradespersons and related workers declined.

All occupation categories apart from tradespersons and related workers grew strongly over the period 1995 to 1998. Preliminary indicative data are also provided for 1999.

This report aims to provide further, more detailed information on the current trends and future supply of skills with respect to each of the trade industry areas: electrical, building and construction, automotive manufacturing/retailing, manufacturing, hospitality, and retailing. Comparisons of these data are also made with projected growth in employment in the trade industries.

Australian Apprentice & Trainee Statistics: Skills Supply to the Trade Industries 1995 to 1999 was prepared by the NCVER's Statistical Services Division.

I commend this important report to you. I am confident that it will contribute to a better understanding of the continuing important role that trade apprenticeships play in Australia's vocational education and training system.

Chris Robinson,
Managing Director,
NCVER Ltd.
April 2000

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1 Introduction

The purpose of this report is to provide information on trends over the years 1995 to 1998 in the realm of contracts of training in vocational education and training in the trade industries in Australia. Preliminary indicative information for 1999 is also provided for the trades generally. This information will be used to provide an indication of where skill shortages may be occurring or likely to occur in relation to specific trade industry areas.

The main trade industries for which apprentice and trainee data are considered in this report are:

- Electrical
- Building and construction
- Automotive manufacturing/retailing
- Manufacturing
- Hospitality, and
- Retailing.

A more detailed, sub-category investigation of apprentice and trainee numbers is provided for some of these main trade industry areas.

Comparisons of apprentice and trainee numbers are also made with projections of employment growth in the trade industries.

Provision of this information will help to identify skill shortages for, or within, particular trade industries or whether current shortages in trade industries are likely to be overcome in the short-term.

Factors including widespread technological changes, the requirement of trade industries for more highly skilled and productive apprentices, increased competition in world trade and the need to improve the transition from school to work have had a major impact on the employment-based training system in Australia.

The government has reformed the apprenticeship and trainee system by making it more flexible and responsive to employer needs and ensuring that the highest quality training is provided. The new training arrangements covering apprenticeships and traineeships are collectively known as New Apprenticeships which the government began introducing from 1 January 1998.

When all contracts of training are considered, that is, apprenticeships and traineeships in both trade and non-trade occupations, greatest growth in overall numbers occurred between 1995 and 1996. Also, changes in the age profile of apprentices and trainees have been evident since 1993/94 when adults were able to access traineeships for the first time. However, vast differences are evident in number and profile information between trade and non-trade occupation apprenticeships and traineeships.

This report focuses on providing more detailed information on such factors as trends in numbers in training, commencements and completions, in relation specifically to trade occupation contracts of training (that is, predominately apprenticeships) by each of the trade industry areas: electrical, building and construction, automotive manufacturing/retailing, manufacturing, hospitality, and retailing. This information is provided in the context of relevant economic and labour market information.

The employment forecast information utilised in this report is based on the data provided by Chris Murphy and Justin Douglas of Econtech in their report commissioned by the NCVER entitled *The Outlook for Jobs*.

Contract of training data considerations

The contract of training figures for 1995 through 1998 in this report have been derived from apprentice and trainee information available in the NCVER's December 1999 Contracts of Training collection. It should be noted that the figures may change slightly in subsequent collections due to the processing of late returns. It also follows that any growth rates presented may also change in the future.

The contract of training figures for 1999 in this report are estimated figures calculated by the NCVER based on the latest data available (preliminary reported data for December quarter 1999) at the time of this report. These estimates are used to take into account data reporting lags that occur resulting in all 1999 activity not yet being reported to or known by the NCVER. The figures for 1999 used in this report may therefore differ from those published at a later date and should be used with caution.

It should be noted that annual growth rates for the period 1995 to 1998 used in this publication have been calculated as *compound* growth rates. This means that an annual growth rate of 10% for example would result in overall growth of 33.1% over the three year period.

2 Tradespersons and related workers – an overview

This section provides a general overview of trends in apprentice and trainee numbers over the period 1995 to 1998 for the major trade occupation categories in terms of the number of commencements, the number in training, and the number of completions. Initial estimates for 1999 are also provided. This information is preceded by analyses of participation, employment trends and general economic commentary.

The information in this section is provided to set the scene and general context for the more detailed industry-by-industry analysis that follows later in the report.

Participation

Indications are that most apprentice and trainee enrolments are still in 'traditional' trade areas with approximately 71% of all apprentice and trainee enrolments in AQF or equivalent courses at the end of 1998 being in AQF level III or IV certificate or equivalent courses. This percentage was higher for the 15 to 19 and 20 to 24 year old age cohorts at around 72% and 77% for each of these cohorts respectively.

Comparison with employment trends

For the tradespersons and related workers occupation category overall, the total number in employment is forecast to grow from 1,154,500 in 1997/98 to 1,205,600 in 2000/01 representing an average annual growth rate of 1.5%.[1] Given the annual growth rate for apprentices and trainees in this occupation category of 1.5% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will remain at its current level of around 10.9%.

Economic considerations

Trends in apprentice and trainee numbers need to be considered in the context of relevant economic information. The changing composition of employment for the working age population aged 15 to 64 years in terms of labour market participation, hours worked, industry and occupation are factors that influence demand for vocational education and training. The information presented below provides a general contextual background of related economic factors.

The economic outlook for skill requirements

Australian economic growth averaged 4.4% during 1998, a rate higher than trend growth. This was achieved in a climate of stagnation for many of Australia's trading partners. With the exception of the United States, economic conditions internationally were weak and world growth halved over the previous year.[2] Population growth, an important influence on economic activity, was around 1.2% during 1997–98, with growth primarily from natural increase. Immigration contributed 0.57 percentage points to the annual increase in population in 1997–98, compared with 0.47 percentage points in 1997–98 and 0.17 percentage points in 1992–93. The contribution of immigration to population growth is of interest because a relatively low rate of immigration implies few skills are being imported into the economy. Therefore the skills required for the ongoing development of the economy need to be provided by the vocational education and training system. It was estimated that 6% of the change in the annual stock of vocational education

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[1] Murphy, Chris & Douglas, Justin 1998, *The Outlook for Jobs,* Econtech, Kingston, ACT.

[2] Reserve Bank Bulletin, February 1999.

and training skills in 1997 could be attributed to the immigration of persons with vocational education and training qualifications[3].

Since net exports contracted, the growth in the economy can be attributed in its entirety to domestic demand. Private consumption rose over the year, fuelled by strong growth in real wages, low interest rates, declining rates of household saving, increases in household wealth and the ready availability of credit leading to increased household indebtedness. The growth in the economy has resulted in a decline in unused capacity in the economy and a fall in unemployment. This growth has been attributed to the impact of competition necessitating greater responsiveness, flexibility and adaptability from industry[4].

Employment growth by industry

Consistent with output growth, job growth has been highest in construction, property and business services and finance. Industries such as manufacturing and agriculture, which are more dependent on external demand experienced a decline in employment. A comparison of the distribution of job vacancies across industries with the distribution of employment across industries indicates those industries offering expanding job opportunities and likely to increase demand for vocational education and training. In May 1998, business services, retail trade, wholesale trade and construction were industries experiencing employment growth and with a higher share of job vacancies than employment.

Table 1: Average annual rate of employment growth by industry (per cent)

	Average annual rate of growth for the one year period May 1997 to May 1998
Agriculture, forestry and fishing	-1.2
Mining	5.3
Manufacturing	-3.0
Electricity, gas and water supply	-3.8
Construction	7.0
Wholesale trade	5.0
Retail trade	1.5
Accom., cafes and restaurants	2.7
Transport and storage	-0.1
Communication services	-10.4
Finance and insurance	2.1
Property and business services	8.8
Government admin. and defence	-8.4
Education	3.2
Health and community services	5.8
Cultural and recreational services	1.5
Personal and other services	0.1
All industries	2.1

Source: Australian Bureau of Statistics catalogue number 1350.0

The relative size of an industry, the proportion of the labour force that holds a vocational qualification and the growth of employment within a sector are all factors that influence the demand for vocational education and training services. The retail, manufacturing and business services sectors are the largest employers of people in Australia, whilst the smallest employers are

[3] Derived using unpublished data from the National Centre for Vocational Education Research's vocational education and training statistics and the Australian Bureau of Statistics' *Transition from Education to Work*, Australia (1998).

[4] Reserve Bank Bulletin, February 1999.

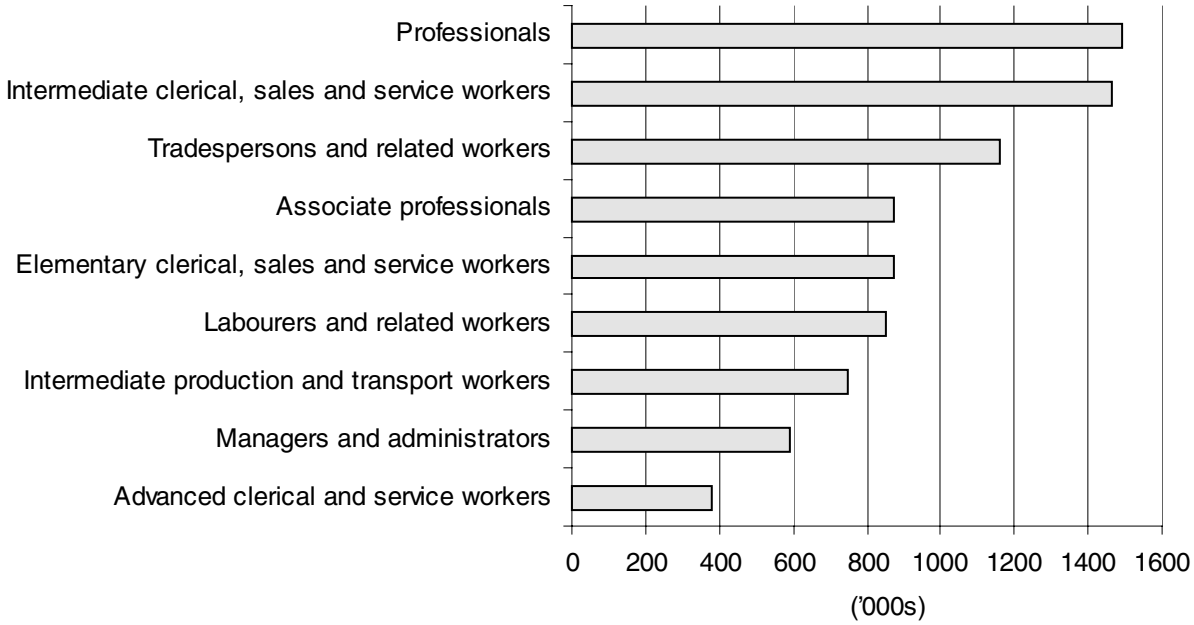
the utilities, mining and communication sectors. The manufacturing, construction, retail and business services industries have the highest proportion of employees with a vocational qualification as the highest qualification attained. These industries will continue to require skills from the vocational education and training sector, although they are not all areas experiencing employment growth.

Employment growth by occupation

Employment by occupational grouping in May 1998 is shown in figure 1. The largest occupational categories in the economy are 'professionals', 'intermediate clerical, sales and service workers', and 'trades persons and related workers'.

The skilled vacancy index reached the highest level of the 1990s during 1998. A 7% increase in skilled vacancies was reported over the year January 1998 to January 1999. Of the major occupational groupings, associate professionals recorded the strongest rise (28%), compared with trades (11%) and professionals (1%). The strongest rises for individual occupations were for chefs (38%), hairdressers (34%), wood trades (32%), accountants and auditors (29%) and electrical and electronic trades (20%)[5]. In addition, within the information technology and telecommunications industry there are projections of strong employment growth in the medium term for computing support technicians and electronic and office equipment tradespersons.[6] As skills are acquired in these occupations in the vocational education and training sector, the increase in vacancies in these occupations suggests a likely increase in demand for associated vocational education and training.

Figure 1: Occupational employment share by occupational groupings Australia May 1998



Source: Australian Bureau of Statistics, 1998, Transition from Education to Work Australia, May 1998, catalogue number 6227.0.

[5] Skilled Vacancy Index, Jan 1999

[6] Derived by the Australian National Training Authority using data from the Australian Bureau of Statistics (1998) *Transition from Education to Work, Australia* and *Skills Shortages in Australia's IT&T Industries*. Discussion paper prepared by Department of Communications, Information Technology and the Arts; Department of Education, Training and Youth Affairs; Department of Employment, Workplace Relations and Small Business; and the Department of Immigration and Multicultural Affairs

Part-time and casual employment

Structural changes taking place in the labour market have implications for the vocational education and training system. In recent years part-time employment has grown at a faster rate than full-time employment, resulting in a continuing decline in the proportion of the labour force employed full-time. Less than 74% of the labour force was employed full-time during May 1998, compared with 76% five years earlier. The move towards part-time employment has not been consistent across industry sectors. The share of full-time employment in the business services sector has remained at about three-quarters of the labour force over the last five years. Agriculture, manufacturing, transport, communication and cultural services are all sectors of the economy with industries that have a declining full-time labour force but an increasing part-time labour force. Wholesale trade, mining, finance, education and health and community services are all sectors of the economy where full-time employment is expanding but at a considerably slower rate than part-time employment.

Table 2: Shifts in full-time employment and employment growth by full-time/part-time categories by industry (per cent)

	Proportion of the workforce employed fulltime			***Average annual growth in employment over the five year period May 1993 to May 1998 (per cent)***		***Average annual growth in employment over the one-year period May 1997 to May 1998 (per cent)***	
	May-93	May-97	May-98	Full-time	Part-time	Full-time	Part-time
Agriculture, forestry and fishing	76.0	78.1	77.2	1.9	0.7	-2.4	2.7
Mining	97.9	96.8	96.2	-1.0	8.5	4.7	21.2
Manufacturing	89.6	89.8	88.7	0.1	1.8	-4.2	6.3
Electricity, gas and water supply	97.4	97.8	97.9	-9.2	-15.7	-3.7	-7.1
Construction	85.7	86.3	86.8	2.6	0.8	7.6	2.9
Wholesale trade	85.6	86.1	84.7	0.6	2.1	3.4	13.9
Retail trade	61.2	55.0	56.4	0.3	3.9	4.0	-1.8
Accom., cafes and restaurants	55.7	52.5	53.9	3.3	4.4	5.3	-0.2
Transport and storage	87.7	87.4	85.6	1.3	4.4	-2.2	12.7
Communication services	89.0	87.8	85.5	2.3	7.1	-13.2	7.1
Finance and insurance	85.1	82.0	81.8	-0.1	4.2	1.8	3.2
Property and business services	75.3	75.5	75.8	7.0	6.6	9.2	7.5
Government Admin. and defence	89.3	87.5	87.4	-2.9	1.0	-8.5	-8.0
Education	70.8	67.4	66.6	0.3	3.8	2.0	5.5
Health and community services	63.1	61.3	59.8	2.3	4.6	3.5	9.2
Cultural and recreational services	64.2	63.4	58.9	2.7	6.2	-6.2	12.3
Personal and other services	70.7	69.5	70.2	2.6	3.0	1.0	-2.1
All industries	76.4	74.3	73.8	1.5	3.9	1.4	3.9

Source: Australian Bureau of Statistics Labour Force Australia, Australian Bureau of Statistics catalogue numbers 6204.0 and 6203.0

These structural changes have ramifications for vocational education and training because employers tend to sponsor less training for part-time employees compared to full-time employees. Skill formation requirements are also affected. Service industries with high shares of part-time employees tend to require broad generic skills rather than vocational skills.

Completions 1995 to 1998

The number of completions in the tradespersons and related workers occupation category grew from 22,700 in 1995 to 27,525 in 1998. However, initial estimates for 1999 indicate the number will decline to around 25220. The proportion of all contract of training completions that the tradespersons and related workers occupation category accounted for declined from 71.9% in 1995 to 46.4% in 1998. Initial estimates for 1999 indicate this proportion will continue to decline. This is principally due to particularly strong growth in traineeships in the non-trade occupation areas in recent years.

The tradespersons and related workers occupation category had the lowest annual growth rate of 6.6% over the period 1995 to 1998 compared with all other major occupational groups. In terms of actual numbers however, this category had the second greatest increase, growing from 22,700 in 1995 to 27,525 in 1998 – an increase of 4,825.

Table 3: Completions, 1995 to 1998

Occupation	*1995*	*1996*	*1997*	*1998*	*Est. 1999*
Tradepersons and related workers					
41 Mechanical and Fabrication engineering tradespersons	4,643	4,065	4,494	4,942	*4970*
42 Automotive tradespersons	3,662	4,070	4,528	4,966	*4710*
43 Electrical and electronics tradespersons	3,651	3,260	3,561	3,522	*3630*
44 Construction tradespersons	4,270	5,302	5,858	6,045	*4800*
45 Food tradespersons	2,307	2,703	2,845	2,816	*2920*
46 Skilled agricultural and horticultural workers	665	681	717	749	*570*
49 Other tradespersons and related workers	3,502	3,972	4,353	4,485	*3610*
Total number	22,700	24,053	26,356	27,525	*25220*
Per cent of all contracts of training	71.9%	66.0%	51.9%	46.4%	*41.5%*

Table 4: Completions annual growth rates, 1995 to 1998

Occupation	Annual rate of growth 1995 to 1998*	Annual growth 1995 to 1996	1996 to 1997	1997 to 1998
4 Tradepersons and related workers	6.6	6.0	9.6	4.4
41 Mechanical and Fabrication engineering tradespersons	2.1	-12.4	10.6	10.0
42 Automotive tradespersons	10.7	11.1	11.3	9.7
43 Electrical and electronics tradespersons	-1.2	-10.7	9.2	-1.1
44 Construction tradespersons	12.3	24.2	10.5	3.2
45 Food tradespersons	6.9	17.2	5.3	-1.0
46 Skilled agricultural and horticultural workers	4.0	2.4	5.3	4.5
49 Other tradespersons and related workers	8.6	13.4	9.6	3.0

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

Whilst the tradespersons and related workers occupation category experienced relatively little growth over the period 1995 to 1998, there were varying rates of growth within this occupation category:

- The electrical and electronics tradespersons category showed negative growth with an annual growth rate of –1.2% over the period 1995 to 1998.

- The construction tradespersons and automotive tradespersons categories showed the greatest growth with annual growth rates of 12.3% and 10.7% respectively over the period 1995 to 1998.

Commencements 1995 to 1998

Although the number of commencements in the tradespersons and related workers occupation category increased from 41,695 in 1995 to 48,051 in 1998, the proportion of commencements in this occupation category declined from 64.6% to 31.2%. This is principally due to particularly strong growth in traineeships in the non-trade occupation areas. Initial estimates for 1999 indicate the number of commencements in the tradespersons and related workers occupation category will continue to increase however its proportion of total commencements will decline further.

Table 5: Commencements, 1995 to 1998

Occupation	*1995*	*1996*	*1997*	*1998*	*Est. 1999*
Tradepersons and related workers					
41 Mechanical and Fabrication engineering tradespersons	6,887	6,625	5,941	6,363	*6100*
42 Automotive tradespersons	7,691	7,995	7,021	7,194	*7760*
43 Electrical and electronics tradespersons	5,145	5,168	5,277	5,662	*6310*
44 Construction tradespersons	8,326	7,228	8,072	10,237	*11430*
45 Food tradespersons	6,195	6,608	6,500	9,682	*9250*
46 Skilled agricultural and horticultural workers	1,082	1,025	1,109	1,274	*1940*
49 Other tradespersons and related workers	6,369	6,234	6,452	7,639	*7980*
Total number	41,695	40,883	40,372	48,051	*50760*
Per cent of all contracts of training	64.6%	45.6%	35.5%	31.2%	*27.6%*

Over the period 1995 to 1998, all major occupational groups experienced a positive annual growth rate.

- All major occupation groups, except tradespersons and related workers, had annual growth rates of over 35%.

- The tradespersons and related workers occupation category had the lowest annual growth rate (4.8%) of the major occupation groups over the period 1995 to 1998.

Table 6: Commencements annual growth rates, 1995 to 1998

Occupation	Annual rate of growth 1995 to 1998*	Annual growth 1995 to 1996	1996 to 1997	1997 to 1998
4 Tradepersons and related workers	4.8	-1.9	-1.2	19.0
41 Mechanical and Fabrication engineering tradespersons	-2.6	-3.8	-10.3	7.1
42 Automotive tradespersons	-2.2	4.0	-12.2	2.5
43 Electrical and electronics tradespersons	3.2	0.4	2.1	7.3
44 Construction tradespersons	7.1	-13.2	11.7	26.8
45 Food tradespersons	16.0	6.7	-1.6	49.0
46 Skilled agricultural and horticultural workers	5.6	-5.3	8.2	14.9
49 Other tradespersons and related workers	6.2	-2.1	3.5	18.4

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

Whilst the tradespersons and related workers occupation category experienced relatively little growth over the period 1995 to 1998, there was a mixture of growth and decline within this occupation category:

- The mechanical and fabrication engineering tradespersons and automotive tradespersons categories showed negative growth with annual growth rates of –2.6% and –2.2% respectively over the period 1995 to 1998.

- The food tradespersons category showed the greatest growth with an annual growth rate of 16.0% over the period 1995 to 1998.

Number in training 1995 to 1998

Although the numbers in-training in the tradespersons and related workers occupation category grew from 120,842 in 1995 to 126,248 in 1998, the proportion of numbers in-training in this occupation category declined from 85.4% to 57.4%. This is in line with the decreasing proportion in commencement numbers. Initial estimates for 1999 indicate the number in-training in the tradespersons and related workers occupation category will continue to increase however its proportion of total numbers in-training will decline further to around 52%.

Table 7: Number in-training, 1995 to 1998

Occupation	*1995*	*1996*	*1997*	*1998*	*Est. 1999*
Tradepersons and related workers					
41 Mechanical and Fabrication engineering tradespersons	19957	20967	20760	20212	*20727*
42 Automotive tradespersons	21443	23276	23487	22835	*24295*
43 Electrical and electronics tradespersons	15431	16156	16554	17096	*19199*
44 Construction tradespersons	26128	25058	24358	24921	*29617*
45 Food tradespersons	15563	16552	17059	19751	*21086*
46 Skilled agricultural and horticultural workers	3332	3278	3283	3295	*4195*
49 Other tradespersons and related workers	18988	18773	18338	18138	*20313*
Total number	120842	124060	123839	126248	*139433*
Per cent of all contracts of training	85.4%	75.3%	66.2%	57.4%	*51.9%*

Over the period 1995 to 1998, all major occupational groups experienced a positive annual growth rate for numbers in-training.

- All major occupation groups, except the tradespersons and related workers and managers and administrators categories, had annual growth rates of at least 10%.

- The tradespersons and related workers occupation category had the lowest annual growth rate of major occupation groups (1.5%) over the period 1995 to 1998.

Table 8: Number in-training annual growth rates, 1995 to 1998

Occupation	Annual rate of growth 1995 to 1998*	Annual growth 1995 to 1996	1996 to 1997	1997 to 1998
4 Tradepersons and related workers	1.5	2.7	-0.2	1.9
41 Mechanical and Fabrication engineering tradespersons	0.4	5.1	-1.0	-2.6
42 Automotive tradespersons	2.1	8.5	0.9	-2.8
43 Electrical and electronics tradespersons	3.5	4.7	2.5	3.3
44 Construction tradespersons	-1.6	-4.1	-2.8	2.3
45 Food tradespersons	8.3	6.4	3.1	15.8
46 Skilled agricultural and horticultural workers	-0.4	-1.6	0.2	0.4
49 Other tradespersons and related workers	-1.5	-1.1	-2.3	-1.1

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

++Whilst the tradespersons and related workers occupation category experienced relatively little growth over the period 1995 to 1998, there was a mixture of growth and decline within this occupation category:

- The construction tradespersons, other tradespersons and skilled agricultural and horticultural workers categories showed negative growth over the period 1995 to 1998.

- The food tradespersons category showed the greatest growth with an annual growth rate of 8.3% over the period 1995 to 1998.

3 Electrical industry

This section focuses on trends in commencements, completions and numbers in training from 1995 to 1998 in apprenticeships and traineeships in electrical industry areas. Those occupation areas included in the analysis and considered most closely linked to the electrical industry are electrical engineering associate professionals (ASCO code 3123), electronic engineering technicians (3124-13), electrical and electronics tradespersons (43), and electrical and telecommunications trades assistants (9918).

Comparison with employment trends

For the electrical and electronics tradespersons occupation category, the total number in employment is forecast to grow from 178,200 in 1997/98 to 192,200 in 2000/01 representing an average annual growth rate of 2.5%.[7] Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 4.4% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase from its current level of around 10%.

However, based on the annual growth rate of 0.6% for completions over the period 1995 to 1998, indications are that completions may not keep pace with the growth in employment in this occupation category.

Therefore, while the indications are that the growth in commencements in this industry area will outpace the forecast employment growth, a skills shortage in this industry area is most likely to arise due to the growth in completions not keeping pace with employment growth.

Commencements, completions and number in training, 1995 to 1998

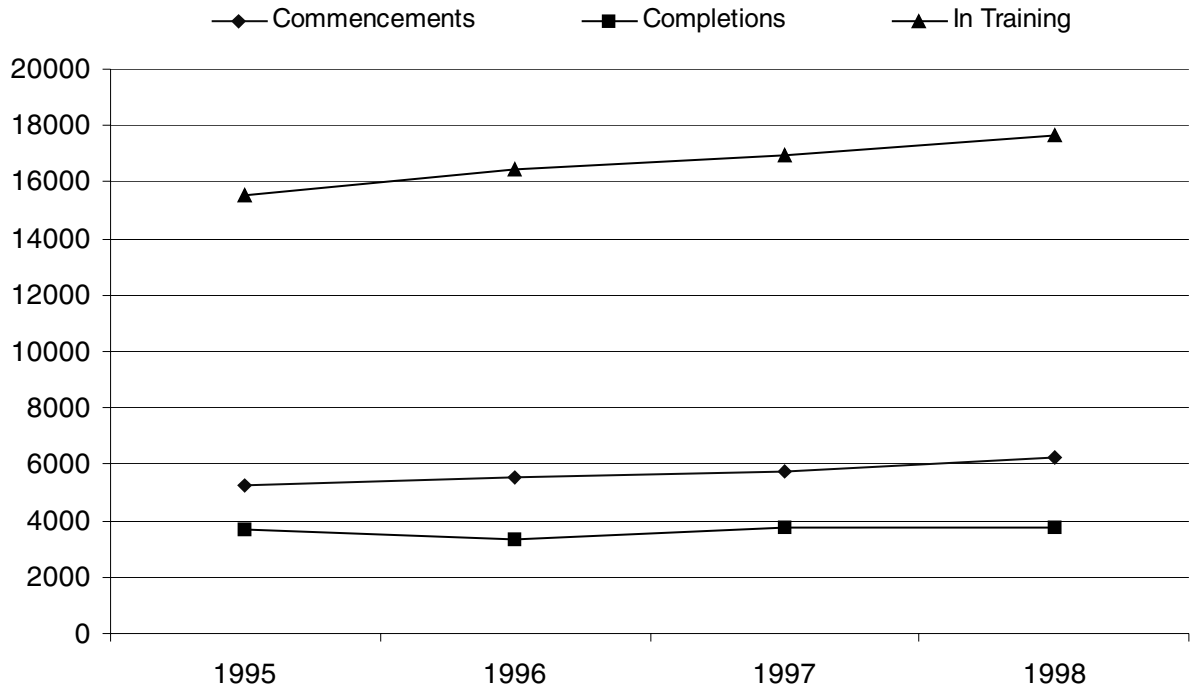
- There was relatively small growth in commencements from 1995 to 1997, from 5241 to 5721. However, figures for 1998 indicated stronger growth from 5721 in 1997 to 6264 in 1998.
- Apart from a decline during 1996, completions remained relatively stable from 1995 to 1998 ranging from 3669 in 1996 to 3736 in 1998.
- Steady growth occurred in numbers in training from 15531 in 1995 to 17692 in 1998.

Table 9: Electrical industry: Number of commencements, completions and in training, 1995 to 1998

	1995	*1996*	*1997*	*1998*
Commencements	5241	5501	5721	6264
Completions	3669	3313	3787	3736
In Training	15531	16465	16950	17692

[7] Murphy, Chris & Douglas, Justin 1998, *The Outlook for Jobs*, Econtech, Kingston, ACT.

Figure 2: Electrical industry: Number of commencements, completions and in training, 1995 to 1998



Whilst commencements and the number in training had annual growth rates of 6.1% and 4.4% respectively over the period 1995 to 1998, the annual growth rate for completions was only 0.6% over the period 1995 to 1998. There are a number of possible contributing factors to this difference, namely:

- The time lag between an increase in commencements becoming evident as an increase in completions
- Participation in training increasing but with a similar increase in the number of apprentices and trainees failing to complete their training.

Table 10: Electrical industry: Growth rates, 1995 to 1998

	95 to 96	96 to 97	97 to 98	Annual growth rate
Commencements	5.0	4.0	9.5	6.1
Completions	-9.7	14.3	-1.3	0.6
In Training	6.0	2.9	4.4	4.4

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

4 Building and construction industry

This section focuses on trends in commencements, completions and numbers in training from 1995 to 1998 in apprenticeships and traineeships in the building and construction industry. Those occupation areas included in the analysis and considered most closely linked to the building and construction industry are all those covered by the ASCO code 44 – construction tradespersons.

Comparison with employment trends

For the construction tradespersons occupation category, the total number in employment is forecast to grow from 262,400 in 1997/98 to 294,600 in 2000/01 representing an average annual growth rate of 3.9%.[8] Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of –1.6% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will decrease from its current level of around 9.5%.

However, based on the annual growth rate for commencements and completions of 7.1% and 12.3% respectively over the period 1995 to 1998, indications are that the growth in commencements and completions will outpace the growth in employment in this occupation category.

Economic considerations

Employment rates in the construction industry are highly cyclical thereby significantly affecting medium-term growth rates. Construction output was strong in 1996/97 and 1997/98 due to an upswing in housing investment and Olympics-related activity resulting in an average annual growth in construction output of over 5% in the three years to 1997/98. However, employment grew at an average annual rate of 0.4% over the same period.

Growth in construction employment lags behind growth in construction output. Thus whilst output growth was strong in 1996/97 and 1997/98, this has taken time to be reflected in employment growth. Increased overtime rather than number of jobs occurred initially due to increased output growth with ABS data showing that 20%, 26% and 37% of construction workers were working overtime at August in 1996, 1997 and 1998 respectively.

Increased overtime rather than increased jobs occurred at least in part due to employers having trouble recruiting employees with the necessary skills. This is supported by an ACCI report in which a widespread shortage of construction industry skills across northern Australia was claimed. Further, the DEETYA skilled vacancy survey shows that vacancies for construction trade workers rose by 97% over the year to February 1998 in contrast to an overall rise in vacancies of 11%.

Commencements, completions and number in training, 1995 to 1998

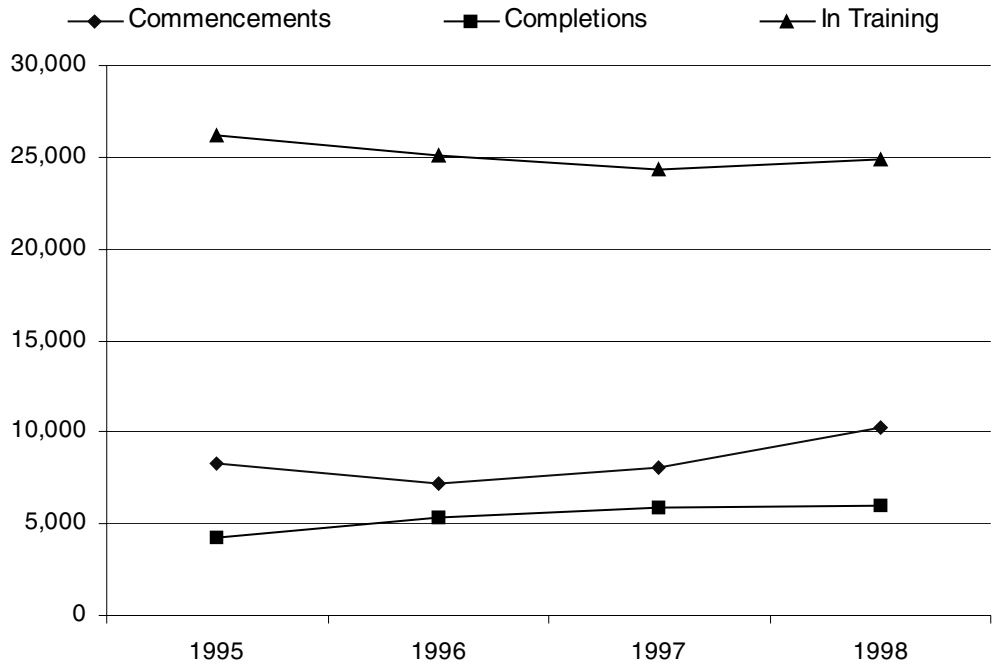
- The number of commencements has been somewhat erratic over 1995 to 1998 ranging from a low of 7228 in 1996 to 10237 in 1998.
- There has been steady growth in the number of completions from 4270 in 1995 to 6045 in 1998.
- The number in training declined from 26128 in 1995 to 24358 in 1997 then rose to 24921 in 1998.

[8] Ibid.

Table 11: Construction industry: Number of commencements, completions and in training, 1995 to 1998

44 CONSTRUCTION TRADESPERSONS	*1995*	*1996*	*1997*	*1998*
Commencements	8,326	7,228	8,072	10237
Completions	4270	5302	5,858	6045
In Training	26128	25058	24358	24921

Figure 3: Construction industry: Number of commencements, completions and in training, 1995 to 1998



Whilst the annual growth rate for the number in training was –1.6% over the period 1995 to 1998, the annual growth rates for commencements and completions were 7.1% and 12.3% respectively over the corresponding period.

Table 12: Construction industry: Growth rates, 1995 to 1998

	95 to 96	96 to 97	97 to 98	Annual growth rate
Commencements	-13.2	11.7	26.8	7.1
Completions	24.2	10.5	3.2	12.3
In Training	-4.1	-2.8	2.3	-1.6

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

5 Automotive manufacturing/retailing industries

This section focuses on trends in commencements, completions and numbers in training from 1995 to 1998 in apprenticeships and traineeships in automotive manufacturing and automotive retailing industries. Those occupation areas included in the analysis and considered most closely linked to these industries automotive tradespersons (ASCO code 421) motor vehicle and related products salespersons (6212).

Information is provided by the various sub-categories.

Comparison with employment trends

For the automotive tradespersons occupation category, the total number in employment is forecast to decline from 138,300 in 1997/98 to 135,400 in 2000/01 representing an average annual growth rate of –0.7%.[9] Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 2.6% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase from its current level of around 17%.

Specifically in relation to the motor vehicle and related products salespersons occupation sub-division, the total number in number in employment is forecast to increase from 18,800 in 1997/98 to 19,600 in 2000/01 representing an average annual growth rate of 1.4%.[10] Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 38.0% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase substantially from its current level of around 3.5%.

Commencements, completions and number in training, 1995 to 1998

Overall for the aforementioned occupation groups considered together:

- There is no consistent trend in commencements with the number of commencements ranging from 7856 in 1997 to 7906 in 1998.
- There was a trend of consistent and steady growth in the number of completions from 3736 in 1995 to 5155 in 1998.
- The number in training grew from 21682 in 1995 to 23944 in 1997 followed by a decline in 1998 to 23444.

With respect to automotive retailing, there was particularly strong growth in the motor vehicle and related products salespersons occupation category in terms of commencements, completions and number in training.

- Commencements grew strongly from 177 in 1995 to 757 in 1998.
- Completions grew from 74 in 1995 to 189 in 1998.
- The number in training grew from 251 in 1995 to 659 in 1998.

[9] Ibid.

[10] Ibid.

Table 13: Automotive industry: Number of commencements, completions and in training, 1995 to 1998

	1995	*1996*	*1997*	*1998*
4211 MOTOR MECHANICS				
Commencements	4,807	4,374	4,043	4483
Completions	2576	2973	3,285	3545
In Training	14713	14878	14522	13964
4212 AUTOMOTIVE ELECTRICIANS				
Commencements	372	326	300	314
Completions	164	200	199	255
In Training	1019	1060	1052	1017
4213 PANEL BEATERS				
Commencements	988	967	751	810
Completions	472	460	488	545
In Training	2584	2769	2627	2472
4214 VEHICLE PAINTERS				
Commencements	806	766	662	675
Completions	348	295	392	454
In Training	1,978	2178	2117	2000
4215 VEHICLE BODY MAKERS				
Commencements	607	1,497	1,205	795
Completions	59	90	102	110
In Training	867	2125	2939	3119
4216 VEHICLE TRIMMERS				
Commencements	99	65	48	72
Completions	43	52	50	57
In Training	270	254	218	213
6212 MOTOR VEHICLE AND RELATED PRODUCTS SALESPERSONS				
Commencements	177	197	437	757
Completions	74	82	108	189
In Training	251	277	469	659
ALL AUTOMOTIVE				
Commencements	7,856	8,192	7,446	7,906
Completions	3,736	4,152	4,624	5,155
In Training	21682	23541	23944	23444

Commencements and the number in training had annual growth rates of 0.2% and 2.6% respectively over the period 1995 to 1998. In contrast to these annual growth rates, that for completions was considerably higher at 11.3%. This may be due to a flow through from a higher number of commencements and number in training before 1995.

Table 14: All automotive industry: Growth rates, 1995 to 1998

	95 to 96	96 to 97	97 to 98	Annual growth rate
Commencements	4.3	-9.1	6.2	0.2
Completions	11.1	11.4	11.5	11.3
In Training	8.6	1.7	-2.1	2.6

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

Specifically in relation to the motor vehicle and related products salespersons occupation category, growth here in terms of commencements, completions and number in training, has been considerably higher than for the automotive industry generally. Commencements, completions and the number in training grew at annual growth rates of 62.3%, 36.7% and 38.0% respectively over the period 1995 to 1998.

Figure 4: All automotive industry: Number of commencements, completions and in training, 1995 to 1998

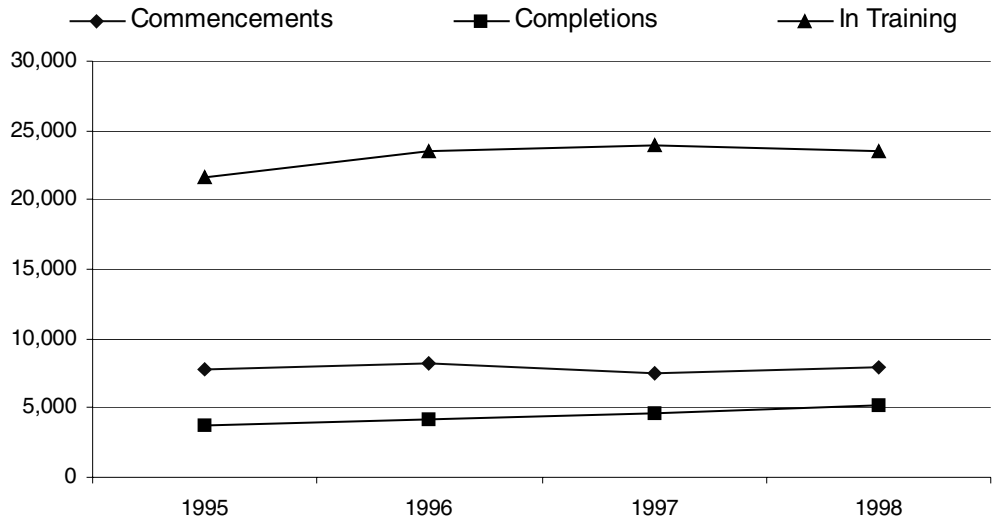


Table 15: Motor vehicle and related products salespersons: Growth rates, 1995 to 1998

	95 to 96	96 to 97	97 to 98	Annual growth rate
Commencements	11.3	121.8	73.2	62.3
Completions	10.8	31.7	75.0	36.7
In Training	10.4	69.3	40.5	38.0

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

6 Manufacturing industry

This section focuses on trends in commencements, completions and numbers in training from 1995 to 1998 in apprenticeships and traineeships in the manufacturing industry. Those occupation areas included in the analysis and considered most closely linked to this industry were mechanical and fabrication engineering tradespersons (ASCO code 41), textile, clothing and related tradespersons (494), intermediate machine operators (72), process workers (921) and product packagers.

Information is provided by the various sub-categories.

Comparison with employment trends

For mechanical and fabrication engineering tradespersons considered together, the total number in employment is forecast to grow from 207,500 in 1997/98 to 209,800 in 2000/01 representing an average annual growth rate of 0.4%.[11] Given the annual growth rate for the number of apprentices and trainees in training in these occupation categories of –2.8% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in these occupation categories will decrease from its current level of around 8.8%. This is further supported by the fact that the annual growth rate for commencements over the period 1995 to 1998 was –3.4%.

For the intermediate machine operators occupation category, the total number in employment is forecast to grow from 103,400 in 1997/98 to 105,900 in 2000/01 representing an average annual growth rate of 0.8%.[12] Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 40.9% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase strongly from its current level of around 0.5%. This is further supported by the fact that the annual growth rate for commencements over the period 1995 to 1998 was 43.2%.

Economic considerations

The trend in manufacturing employment has been fundamentally flat since 1994/85. However, with the Asian Economic Crisis came a lowering of commodity prices which triggered a depreciation in the Australian dollar. This in turn made imports dearer thereby improving the competitiveness of local producers against imports. Employment in manufacturing is therefore expected to experience low growth over the short term.

There are differences between growth rates for various sub-divisions within the manufacturing industry. Strong employment growth in the Printing, Publishing and Recorded Media sub-division is expected to continue. On the other hand, employment is expected to fall in the textile, clothing, footwear and leather sub-division due primarily to tariff cuts to the year 2000. Strong productivity growth is also limiting employment growth in this sub-division.

Commencements, completions and number in training, 1995 to 1998

Overall for the aforementioned selected occupation groups considered together:

- Commencements grew strongly from 9201 in 1995 to 14972 in 1998.
- Completions were stable over 1995 to 1996 and then grew strongly to 8561 in 1998.

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[11] Ibid.

[12] Ibid.

- The number in training has grown steady from 22328 in 1995 to 27120 in 1998 although there was a slight decline during 1998.

Table 16: Manufacturing industry: Number of commencements, completions and in training, 1995 to 1998

	1995	*1996*	*1997*	*1998*
411 MECHANICAL ENGINEERING TRADESPERSONS				
Commencements	3,688	3,115	2,698	3,209
Completions	3116	2553	2,700	2,849
In Training	11426	11208	10470	9998
412 FABRICATION ENGINEERING TRADESPERSONS				
Commencements	3,111	2,563	2,062	2,922
Completions	1527	1498	1,767	2,032
In Training	8411	8762	8325	8244
494 TEXTILE, CLOTHING AND RELATED TRADESPERSONS				
Commencements	222	238	477	551
Completions	117	108	145	300
In Training	589	602	767	725
72 INTERMEDIATE MACHINE OPERATORS				
Commencements	172	251	510	505
Completions	71	105	111	152
In Training	167	204	435	467
921 PROCESS WORKERS				
Commencements	2,008	3,987	8,091	7,785
Completions	153	631	1,417	3,228
In Training	1735	3491	7584	7686
ALL MANUFACTURING				
Commencements	9201	10154	13838	14972
Completions	4984	4895	6140	8561
In Training	22328	24267	27581	27120

Within manufacturing, there were some evident differences in the amount of growth between the various occupation sub-categories.

- In terms of commencements, completions and number in training, numbers in the mechanical engineering tradespersons occupational group dropped slightly over the period 1995 to 1998.
- There was negative growth in commencements and number in training for the fabrication engineering tradespersons category. However, the growth in the number of completions over the period 1995 to 1998 was positive.
- The other occupation groups, textile, clothing and related tradespersons; intermediate machine operators; and process workers; all experienced strong growth over the period 1995 to 1998 in terms of commencements, completions and number in training.

Overall for the manufacturing industry, growth has been relatively strong over the period 1995 to 1998 with annual growth rates for commencements, completions and number in training of 17.6%, 19.8% and 6.7% respectively.

Within the manufacturing industry, there were some marked differences in growth rates.

For the mechanical engineering tradespersons occupation category, there was generally a trend of small decline in commencements, completions and the number in training with annual growth rates of –4.5%, -2.9% and –4.4% respectively. For the fabrication engineering tradespersons occupation category, there was negative growth in commencements and the number in training with annual growth rates of –2.1% and –0.7% respectively, although completions showed strong growth with an annual growth rate of 10.0% over the period 1995 to 1998.

Figure 5: All manufacturing industry: Number of commencements, completions and in training, 1995 to 1998

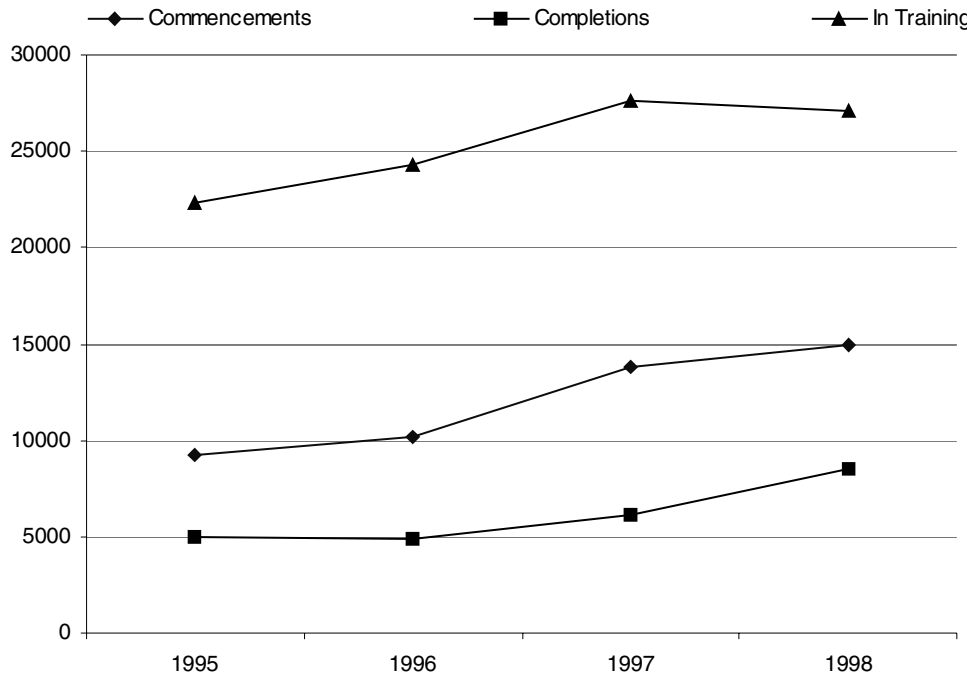


Table 17: Manufacturing industry: Growth rates, 1995 to 1998

	95 to 96	96 to 97	97 to 98	Annual growth rate
411 MECHANICAL ENGINEERING TRADESPERSONS				
Commencements	-15.5	-13.4	18.9	-4.5
Completions	-18.1	5.8	5.5	-2.9
In Training	-1.9	-6.6	-4.5	-4.4
412 FABRICATION ENGINEERING TRADESPERSONS				
Commencements	-17.6	-19.5	41.7	-2.1
Completions	-1.9	18.0	15.0	10.0
In Training	4.2	-5.0	-1.0	-0.7
494 TEXTILE, CLOTHING AND RELATED TRADESPERSONS				
Commencements	7.2	100.4	15.5	35.4
Completions	-7.7	34.3	106.9	36.9
In Training	2.2	27.4	-5.5	7.2
72 INTERMEDIATE MACHINE OPERATORS				
Commencements	45.9	103.2	-1.0	43.2
Completions	47.9	5.7	36.9	28.9
In Training	22.2	113.2	7.4	40.9
921 PROCESS WORKERS				
Commencements	98.6	102.9	-3.8	57.1
Completions	312.4	124.6	127.8	176.3
In Training	101.2	117.2	1.3	64.2
ALL MANUFACTURING				
Commencements	10.4	36.3	8.2	17.6
Completions	-1.8	25.4	39.4	19.8
In Training	8.7	13.7	-1.7	6.7

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

Generally speaking, the other manufacturing occupation categories considered; textile, clothing and related tradespersons; intermediate machine operators; and process workers; showed strong growth over the period 1995 to 1998.

7 Hospitality

This section focuses on trends in commencements, completions and numbers in training from 1995 to 1998 in apprenticeships and traineeships in the hospitality industry. Those occupation areas included in the analysis and considered most closely linked to this industry are provided in the table below.

Information is provided by these various occupation sub-categories.

Comparison with employment trends

For the cooks occupation category, the total number in employment is forecast to grow from 39,900 in 1997/98 to 41,500 in 2000/01 representing an average annual growth rate of 1.4%.[13] Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 5.3% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase from its current level of around 28%.

For the bakers and pastry cooks occupation category, the total number in employment is forecast to grow from 20,600 in 1997/98 to 21,300 in 2000/01 representing an average annual growth rate of 1.1%. Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 4.3% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase from its current level of around 16.3%.

Economic considerations

Employment growth in the accommodation, cafes and restaurants industry has been strong since the mid-1980s with an average annual rate of 4.9% since 1995/86. Slow productivity growth has contributed to this strong employment growth.

While slower growth was experienced around 1996 to 1998 due to moderate growth in tourism, due in part to a strong Australian dollar, stronger growth is expected to resume due to a weaker Australian dollar and an increase in tourism surrounding the Sydney Olympics.

Commencements, completions and number in training, 1995 to 1998

Overall for the selected occupation groups considered together:

- Commencements grew strongly from 7634 in 1995 to 18242 in 1998.
- Completions grew from 2862 in 1995 to 4874 in 1998.
- The number in training grew strongly from 16636 in 1995 to 27002 in 1998.

Generally speaking, there was particularly strong growth over the period 1995 to 1998 for the hospitality workers category, food trades assistants, and kitchen hands.

While there was growth in the food tradespersons occupation category, it was not as strong as for the hospitality workers category. Within the food tradespersons group, the cooks and bakers, and pastry cooks occupation categories experienced lower growth over the period 1995 to 1998.

[13] Ibid.

Table 18: Hospitality: Number of commencements, completions and in training, 1995 to 1998

	1995	*1996*	*1997*	*1998*
332 HOSPITALITY AND ACCOMMODATION MANAGERS (INCLUDES 3322 CHEFS)				
Commencements	0	0	0	2
Completions	0	0	0	0
In Training	0	0	0	0
4513 COOKS				
Commencements	4,082	4,336	4,177	5010
Completions	1353	1621	1,725	1652
In Training	9632	10387	10705	11249
4512 BAKERS AND PASTRY COOKS				
Commencements	1,175	1,277	1,256	1328
Completions	438	515	552	545
In Training	2962	3170	3293	3360
ALL 451 FOOD TRADESPERSONS				
Commencements	6,195	6,608	6,500	9682
Completions	2307	2703	2,845	2816
In Training	15563	16552	17059	19751
6324 HOSPITALITY TRAINEES				
Commencements	67	304	1,310	2149
Completions	56	50	114	285
In Training	55	214	807	1670
6323 WAITERS				
Commencements	495	803	1,336	1237
Completions	203	212	321	356
In Training	400	597	1002	1069
6322 BAR ATTENDANTS				
Commencements	5	27	1	6
Completions	0	6	8	1
In Training	4	13	2	5
6321 HOTEL SERVICE SUPERVISORS				
Commencements	5	71	470	302
Completions	0	0	9	289
In Training	4	68	493	318
ALL 632 HOSPITALITY WORKERS				
Commencements	1,366	2,881	6,356	6959
Completions	540	658	1,224	1883
In Training	1006	2054	4830	5820
9933 FOOD TRADES ASSISTANTS				
Commencements	38	56	183	837
Completions	0	0	37	85
In Training	31	41	151	717
9931 KITCHEN HANDS				
Commencements	35	92	785	762
Completions	15	27	37	90
In Training	36	68	718	714
ALL HOSPITALITY				
Commencements	7634	9637	13824	18242
Completions	2862	3388	4143	4874
In Training	16636	18715	22758	27002

Figure 6: All hospitality: Number of commencements, completions and in training, 1995 to 1998

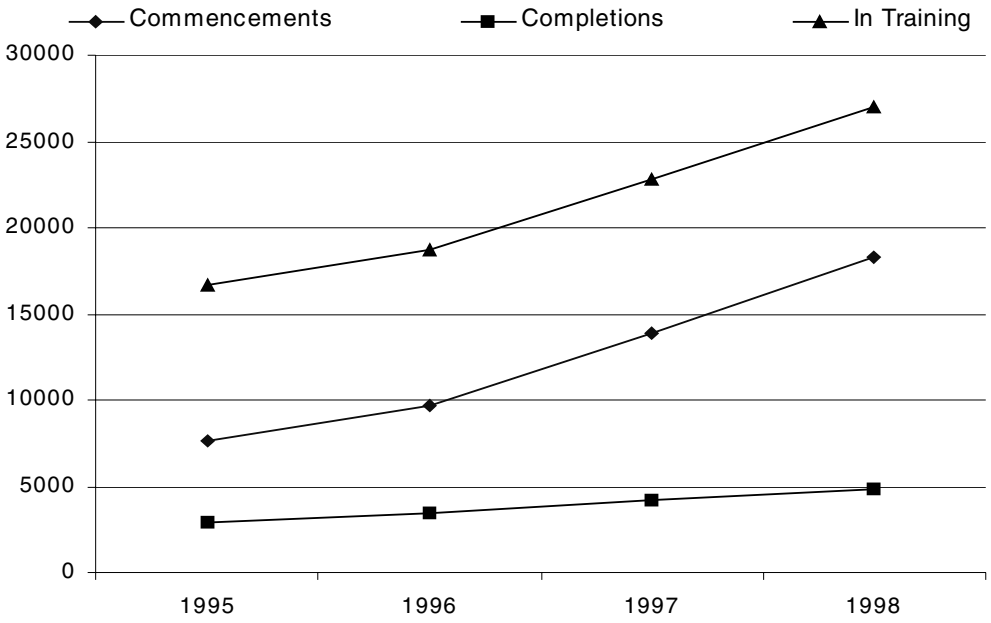


Table 19: Hospitality: Growth rates, 1995 to 1998

Occupation	95 to 96	96 to 97	97 to 98	Annual growth rate
4513 COOKS				
Commencements	6.2	-3.7	19.9	7.1
Completions	19.8	6.4	-4.2	6.9
In Training	7.8	3.1	5.1	5.3
4512 BAKERS AND PASTRY COOKS				
Commencements	8.7	-1.6	5.7	4.2
Completions	17.6	7.2	-1.3	7.6
In Training	7.0	3.9	2.0	4.3
ALL 451 FOOD TRADESPERSONS				
Commencements	6.7	-1.6	49.0	16.0
Completions	17.2	5.3	-1.0	6.9
In Training	6.4	3.1	15.8	8.3
6324 HOSPITALITY TRAINEES				
Commencements	353.7	330.9	64.0	217.7
Completions	-10.7	128.0	150.0	72.0
In Training	289.1	277.1	106.9	212.0
6323 WAITERS				
Commencements	62.2	66.4	-7.4	35.7
Completions	4.4	51.4	10.9	20.6
In Training	49.3	67.8	6.7	38.8
ALL 632 HOSPITALITY WORKERS				
Commencements	110.9	120.6	9.5	72.1
Completions	21.9	86.0	53.8	51.6
In Training	104.2	135.2	20.5	79.5
9931 KITCHEN HANDS				
Commencements	162.9	753.3	-2.9	179.2
Completions	80.0	37.0	143.2	81.7
In Training	88.9	955.9	-0.6	170.7
ALL HOSPITALITY				
Commencements	26.2	43.4	32.0	33.7
Completions	18.4	22.3	17.6	19.4
In Training	12.5	21.6	18.6	17.5

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

- Overall for the selected hospitality occupation groups, commencements over the period 1995 to 1998 had an annual growth rate of 33.7%, completions had an annual growth of 19.4% and the number in training had an annual growth rate of 17.5%.

The number of apprentices and trainees relating to the cooks occupation category showed growth over the period 1995 to 1998 with annual growth rates in commencements, completions and number in training of 7.1%, 6.9% and 5.3% respectively.

The number of apprentices and trainees relating to the bakers and pastry cooks occupation category showed growth over the period 1995 to 1998 with annual growth rates in commencements, completions and number in training of 4.2%, 7.6% and .
% respectively.

8 Retailing

This section focuses on trends in commencements, completions and numbers in training from 1995 to 1998 in apprenticeships and traineeships in the retailing industry. Those occupation areas included in the analysis and considered most closely linked to retailing were intermediate sales and related workers (ASCO code 621), elementary sales workers (82), and florists (4984).

Information is provided by these various occupation sub-categories.

Comparison with employment trends

For the intermediate sales and related workers occupation category, the total number in employment is forecast to grow from 129,100 in 1997/98 to 137,600 in 2000/01 representing an average annual growth rate of 2.1%.[14] Despite the large fall in growth rates in the number in training over the period 1995 to 1998 due to the relatively recent establishment in traineeships, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will continue to increase from its current level of around 6.7%.

For the elementary sales and related workers occupation category, the total number in employment is forecast to grow from 697,500 in 1997/98 to 745,200 in 2000/01 representing an average annual growth rate of 2.2%. Given the annual growth rate for the number of apprentices and trainees in training in this occupation category of 81.1% over the period 1995 to 1998, indications are that the number of apprentices and trainees in training as a proportion of the number employed in this occupation category will increase strongly from its current level of around 2.5%.

Economic considerations

While the number in training related to retailing has grown strongly, the average annual employment growth rate in retailing for the three years to 1997/98 was 1.6%. It is expected that this employment growth rate will weaken in the short term due to a moderation in private consumption.

Commencements, completions and number in training, 1995 to 1998

Apprenticeships and traineeships related to retailing have experienced strong growth over the period in terms of commencements, completions and the number in training.

- Commencements increased from 6452 in 1995 to 32084 in 1998.
- Completions increased from 2001 in 1995 to 8637 in 1998.
- The number in training increased from 5466 in 1995 to 16115 in 1998.

Training numbers in relation to retailing have experienced particularly strong growth over the period 1995 to 1998 with commencements, completions and the number in training having annual growth rates of 70.7%, 62.8% and 68.8% respectively over the period.

The high growth of apprentices and trainees in this industry is principally due to the particularly strong growth in traineeships over the last three years.

[14] Ibid.

Table 20: Retailing: commencements, completions and in training, 1995 to 1998

	1995	*1996*	*1997*	*1998*
621 INTERMEDIATE SALES AND RELATED WORKERS				
Commencements	2,766	8,157	9,827	11266
Completions	75	1484	3,979	4128
In Training	2401	6179	7496	8706
82 ELEMENTARY SALES WORKERS				
Commencements	3,632	7,902	10,536	20730
Completions	1892	1976	3,828	4474
In Training	2932	6011	8477	17422
4984 FLORISTS				
Commencements	54	55	91	88
Completions	34	32	39	35
In Training	133	128	142	155
ALL RETAILING				
Commencements	6452	16114	20454	32084
Completions	2001	3492	7846	8637
In Training	5466	12318	16115	26283

Figure 7: All retailing: Number of commencements, completions and in training, 1995 to 1998

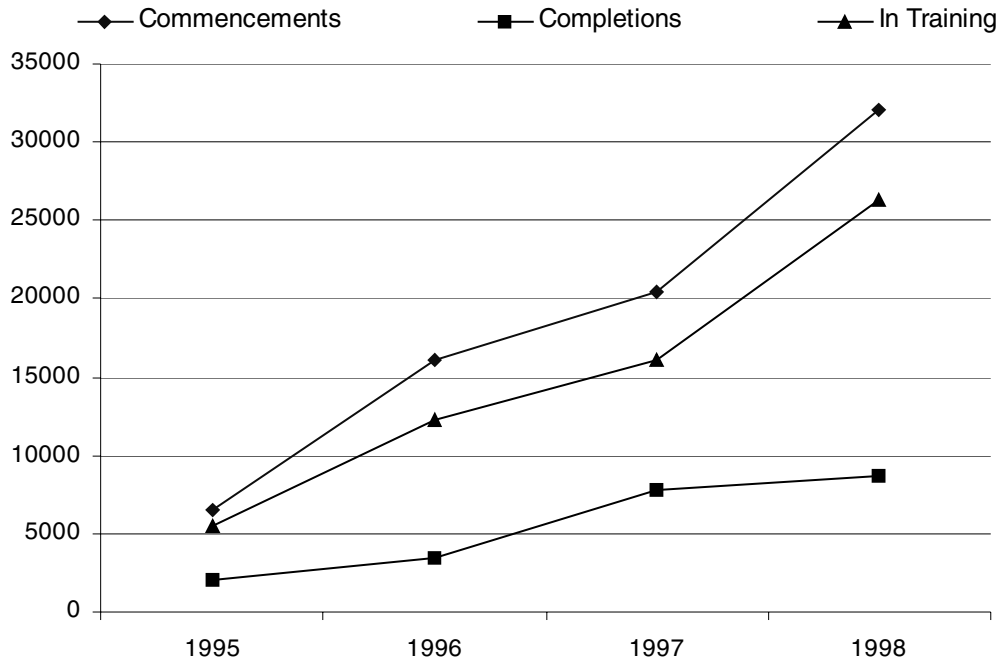


Table 21: Retailing: Growth rates, 1995 to 1998

Occupation	95 to 96	96 to 97	97 to 98	Annual growth rate
621 INTERMEDIATE SALES AND RELATED WORKERS				
Commencements	194.9	20.5	14.6	59.7
Completions	1,878.7	168.1	3.7	280.4
In Training	157.4	21.3	16.1	53.6
82 ELEMENTARY SALES WORKERS				
Commencements	117.6	33.3	96.8	78.7
Completions	4.4	93.7	16.9	33.2
In Training	105.0	41.0	105.5	81.1
4984 FLORISTS				
Commencements	1.9	65.5	-3.3	17.7
Completions	-5.9	21.9	-10.3	1.0
In Training	-3.8	10.9	9.2	5.2
ALL RETAILING				
Commencements	149.8	26.9	56.9	70.7
Completions	74.5	124.7	10.1	62.8
In Training	125.4	30.8	63.1	68.8

* Annual rates of growth for the period 1995 to 1998 are compound growth rates.

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