SUPPORT DOCUMENTS

# Factors pertaining to quality outcomes of shorter duration apprenticeships and traineeships: Support documents

NATIONAL CENTRE FOR VOCATIONAL EDUCATION RESEARCH

This document was produced by the author(s) based on their research for the report, *Factors pertaining to quality outcomes of shorter duration apprenticeships and traineeships*, and is an added resource for further information. The report is available on NCVER's website: <http://www.ncver.edu.au>

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# APPENDIX 1: EVALUATIONS OF 35 RESEARCH STUDIES

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# Introduction

The evaluations contained in this appendix formed the basis of the literature review undertaken for the study, commissioned by ANTA, into factors pertaining to quality outcomes of shorter duration apprenticeships and traineeships.

This appendix contains evaluations of thirty-five studies relating to the quality of apprenticeships and traineeships. The evaluations include a summary of the aims of the studies and major findings relating to quality of outcomes. The evaluations also assess the quality of the research in these studies in terms of their method and analysis, and provide a rating according to their overall quality. Whether they were national, state, localised or overseas studies, and the time period in which the research took place, has also been recorded.

The thirty-five studies were chosen from a more extensive literature search that was conducted. This literature search initially uncovered 124 references together with their abstracts. The final set of thirty-five papers chosen for this review was based on their relevance to quality of apprenticeships and traineeships. References were excluded on the basis that they were not research but rather opinion pieces or magazine style articles, or they did not cover quality issues.

## Classification of studies included in the review

Geographic coverage: N (National), S (State), L (Local), O (Overseas)
Quality: H (High), M (Medium), L (Low)
Time focus of studies: Year of data analysed

| Study reference | Geographic coverage | Quality of research | Time focus of study |
|---|---|---|---|
| Afrassa T, 2001 Factors influencing the completion of South Australian traineeships: A two-level HLM analysis, | S | H | 1997-98 |
| ANTA 2001 National review of group training: Report on State and Territory consultations. | N | M | 2001 |
| Bender A 2003 Factors influencing completions in Australia's apprenticeship system | N | H | 2001 |
| Callan V 2001, Apprenticeship and traineeship completions,. | S | M | 2000 |
| Callan V J 2002 Review of the printing and graphic arts industry and training provisions, | L | H | 2002 |
| Callan, V J 2000, Report on apprenticeship and traineeship non-completions, | S | M | 1999/2000 |
| Cully M & Curtain R 2001 Reasons for New Apprentices' non-completions. | N | H | 1999/2000 |
| Cully M, VandenHeuvel A, & Goodes, R 2000 Completed traineeships: A longitudinal survey of outcomes. | N | H | 1997/98 |
| Department of Education, Training and Employment & National Centre for Vocational Education Research, October 1999, Review of arrangements for on job traineeships in South Australia. | S | H | 1999 |
| Economic Research Services 2000 Evaluation of Modern Apprenticeships: 1998 survey of employers. | O | H | 1998 |
| Favero J 2003 'Quality' training – challenges for teachers of workplace training for trainees and apprentices. | L | H | 2001/2002 |
| Fuller A and Unwin L 2003 Creating a Modern Apprenticeship: a critique of the UK's multi-sector, social inclusion approach | O | M | 2001 |
| Grey K, Beswick W, O'Brien C, & Ray D 1999 Traineeship non- | N | H | 1995-1997 |

| Study reference | Geographic coverage | Quality of research | Time focus of study |
|---|---|---|---|
| completion | | | |
| Harris et al 2001 Factors that contribute to retention and completion for apprenticeships and traineeships. | N | M | c.2001 |
| Kilpatrick S, Hamilton V & Falk I 2001 Issues of quality learning: Apprenticeships and Traineeships in rural and remote Australia. | N | M | c.2000 |
| Kodz J, Tackey ND, Pollard E, Dench S, Tyers C, & Dewson S 2000 Modern Apprenticeships and National Traineeships: Skills utilisation and progression. | O | H | 1999 |
| Lamb S, Long, M & Malley, J 1998 Access and equity in vocational education and training. | N | H | mid '80s-md '90s |
| Market Solutions 2003 2002 surveys of New Apprentice and employer satisfaction with New Apprenticeship Centres. | N | M | 2002 |
| Misko J 1999 On-the-job traineeships in Western Australia. | S | M | 1999 |
| NCVER 2001 Group training apprenticeships and traineeships in Australia. | N | H | 1995-2000 |
| NSW Department of Education and Training 2003 Strategic evaluation of traineeship training in NSW abattoirs | L | H | 2002 |
| Ray D, Beswick W, Lawson C, O'Brien C & Madigan S 2000 Attrition in apprenticeships: An analysis of apprentices commencing between July 1994 and June 1996. | N | H | 1994-1997 |
| Roy Morgan Research 1998 Benchmarking employer satisfaction with training for apprentices and trainees, | S | H | 1997 |
| Sadler R 2003 Effectiveness of time requirements in assuring a quality learning experience for apprentices and trainees. | L | M | 2003 |
| Schofield K 1999 A risky business: Review of the quality of Tasmania's traineeship system. | S | L | 1999 |
| Schofield K 1999a Report of the independent investigation into the quality of training in Queensland's traineeship system. | S | H | 1999 |
| Schofield, K 2000 Report of the independent review of the quality of training in Victoria's apprenticeship and traineeship system. | S | M | 2000 |
| Smith L 2000 Apprenticeships and traineeships: Queensland trends: 1998-99 update. | S | M | 1994-1998 |
| Smith LR 1999 The impact of user choice on the Queensland training market: a progress evaluation | S | M | 1998/99 |
| Smith, E & Wilson, L 2002 Learning and training in school-based new apprenticeships, NCVER, Adelaide. | N | M | 2001 |
| Strickland et al 2001 Evaluating on-and off-the-job approaches to learning and assessment in apprenticeships and traineeships. | N | M | c.2000 |
| Toner P, Croce N, Pickersgill, R & Van Barnevald, K 2001 Trends in apprenticeship and traineeship training in New South Wales. | S | M | 1995-2000 |
| Western Australia Department of Training 1998 New Apprenticeships: Making it work. | S | M | 1997 |
| Winterbotham M, Adams, L and Lorentzen-White, D 2000 Modern Apprenticeships: Exploring the reasons for non-completion in five sectors. | O | H | 2000 |
| Wood, S 2004, Fully on-the-job training: Experiences and steps ahead. | N | L | 2003 |

# Base Analysis Summaries of the 35 studies used in the analysis of this report

## 1. Author and study reference

**Afrassa T 2001, Factors influencing the completion of South Australian traineeships: A two-level HLM analysis, *Australian Journal of Adult Learning*, Vol 41(2), pp. 208-223.**

### Aim of research

To identify reasons why some students complete their contracts of training and others do not. In particular, it aims to identify factors related to the individual student, and to the provider where the student was enrolled. The study refers to the traineeship system that predates New Apprenticeships. These traineeships were usually of about one year in length.

### Findings of research

Five student level factors were found to affect completion. These factors were age (younger trainees more likely to complete), Aboriginal and Torres Strait Islander (non ATSI more likely to complete), high school completion (more likely to complete), professional employment (more likely to complete), and agriculture or mining employment (people not employed in these areas more likely to complete).

Four provider level factors were found to have an effect on completion. These were mean age (institutions with higher proportion of younger students more likely to have higher completion rates), proportions for high school completion (institutions with highest completion rates had a lower proportion of students completing high school), associate professional employment level (associated with higher completions), and employment type (institutions with a higher proportion of trainees employed in the private sector have higher completion rates).

Age and high school completion were found to influence completion at both the student and provider level.

### Quality of research

#### *Method*

**Design**

The design for this study was purely quantitative.

Although the design enables one to determine which factors affect completion, it is limited in that it does not tell why these factors affect completion.

**Sample**

The criteria for the sample were trainees who commenced in 1997 and for whom a training provider is identified. Data was obtained from 20 providers and 913 trainees in South Australia. No information is provided on the numbers of trainees for whom providers are not identified. It is difficult to know therefore how much of the possible population was sampled.

**Data collection**

Data was obtained from the 1997 and 1998 South Australian Apprenticeship and Traineeships Statistics data.

### *Analysis*

Two level Hierarchical Linear Modelling (HLM) analysis was used. Twenty-three student level variables were constructed into four categories being student characteristics, occupational type, employment type, and educational background. In addition, five categories of provider variables were constructed. These were characteristics concerned with proportions of students, client's type of employment according to ASCO, proportion of client's type of employment according to ANZSIC, proportion of clients with a specific educational background, and proportion of students in a provider employed in the private sector.

An iterative approach was used to developing the model whereby the final model contained only significant factors (non-significant factors were deleted from the model in earlier iterations).

### *Findings and reporting*

The findings are clearly reported and follow from the analysis provided. Given the method employed, the findings are plausible. In making wider inferences from these findings, it needs to be noted that the data pertains only to South Australian traineeship completions in 1997 and 1998.

The findings are compared and contrasted to some of the other literature in the area (notably Grey et al's study on traineeship non-completion).

### *Auditability*

The method, data sources and analysis used have been clearly documented.

## Summation of weight of evidence for factors identified

Factors of significance affecting traineeship completions at student level appear to be

- age (younger trainees more likely to complete),
- level of high school completion (high school completers more likely to complete),
- ATSI (less likely to complete),
- professional employment (more likely to complete),
- and agriculture or mining employment (less likely to complete).

Main factors affecting completion at the provider level were age:

- high school completion (providers with lower proportions of student completing high-school had higher overall completion rates),
- associate professional employment (institutions with higher levels of students in associate professional employment had high completion rates),
- and employment type (institutions with a higher proportion of trainees employed in the private sector have higher completion rates).

The findings for this study are plausible within the parameters of the research – South Australian traineeship data for 1997 and 1998.

# 2. Author and study reference

**ANTA 2001, *National review of group training: Report on State and Territory consultations,* ANTA, Brisbane.**

## Aim of research

This review seeks to address in part the terms of reference for a review on future directions of group training. In particular, the consultations aimed to give key stakeholders an opportunity to provide input into the terms of reference for the review, and to obtain feedback from current and potential users of group training services on benefits, impediments, areas requiring attention and emerging trends in the sector.

## Findings of research

The report raised a plethora of issues. The major ones pertaining to quality issues are summarised here. The findings are also summarised according to stakeholder group.

*Group Training Organisations*:

- Excessive competition impacts on quality training outcomes'
- Pastoral care is seen as critical to group training and is linked to completion, retention and quality training outcomes;
- A need was identified for a formal framework for GTOs to promote national consistency and quality.

*Employers not using group training services*

- There was little evidence of dissatisfaction by employers who had previously used group training but are not now,
- Host employers,
- Most host employers were satisfied with their Group Training Organisation and believed that they delivered quality training outcomes,
- The major reasons for using group training was reduced administration burden (host employer does not have to worry about it) and flexibility,
- The complementary nature of on- and off-the-job training assisted in achieving quality outcomes.

*Apprentices and trainees*

- Apprentices and trainees had a high to very high level of satisfaction with services provided by group training companies'
- Nearly one-third of apprentices and trainees did not understand how employment with group training differs from other employers indicating a need for improved induction processes;
- The most common concern with group training companies mentioned by apprentices and trainees was that their placement did not offer a range of experiences;
- The link between on and off-the-job training was seen as an advantage in achieving quality training/employment outcomes.

## Quality of research

### *Method*

#### Design

The design for this part of the review consisted of undertaking consultations with four sets of key stakeholders identified by the sub-committee to the steering committee for the review. These four groups were Group Training Organisations, employers currently not using group training services, host employer clients of Group Training Organisations, and group training apprentices/trainees.

The Questionnaire, attached to the report, was developed for each stakeholder group.

### Sample

State Training Authorities in each state/rerritory were responsible for undertaking the consultations. There was no consistency across the jurisdictions in terms of sampling or data collection. Some states contracted other organisations to do the consultations while others did not, and stakeholders were sampled differently in each state. The variation in approaches to the sampling makes it difficult to determine how representative the final sample was. However, a table was provided indicating total numbers surveyed by state and stakeholder type. In total, 95 Group Training Organisations, 82 employers not using group training services, 249 host employers and 774 apprentices and trainees were consulted.

### Data collection

There was no consistency in data collection across states and territories, although they all used the same interview guideline. The data was collected either by phone interview, by mail, by face to face interview, or by focus group sessions.

## *Analysis*

For the consultations with the group training organisations, data was aggregated around the terms of reference for the review. Issues arising from the consultations were identified and then aggregated to form a national picture. Where possible, the frequency with which the issues were raised was quantified.

For consultations with employers not using group training services, host employers, and group training trainees and apprentices, data was aggregated around the structure of the questionnaires used for the consultations. The data was shown graphically together with qualitative comments.

The analysis examines both positive areas and areas of concern with Group Training Organisations.

There is no overall integrative analysis.

## *Findings and reporting*

The findings follow from the analysis and are presented discretely for each of the four stakeholder groups consulted. They raise many issues pertinent to the operation of Group Training Organisations.

The findings are not integrated in any way to explore commonalities or points of difference across the perceptions of the four stakeholder groups. The report reads rather more like four discrete exercises.

Given the variation in the approach to sampling and data collection across jurisdictions, the report acknowledges that caution needs to be taken in generalising the results. They present rather, issues for further consideration.

There is no attempt to contextualise the findings in terms of other literature/research in the area. This may be because this review is a component part of a larger review into Group Training Organisations.

## *Auditability*

The variations between the states/territories to sampling/data collection are documented in the report. However, the variation in approach would make the review very difficult to replicate. Questionnaires used for the stakeholder consultations are appended to the report.

# Summation of weight of evidence for factors identified

The key factors identified that can impact on quality outcomes from group training can be summarised as:

- excessive competition;
- level of pastoral care provided by GTOs;
- the link provided between on and off-the job training;
- the range of experiences offered by the placement;
- the quality of the induction process.

Given the lack of consistency in sampling and data collection the findings should be seen as indicative of issues rather than generalisable. The report acknowledges as much.

# 3. Author and study reference

**Bender A 2003, Factors influencing completions in Australia's apprenticeship system *The sixth Australian VET Research Association conference: the changing face of VET*, AVETRA, Nowra, NSW.**

## Aim of research

To identify and quantify key factors that affect apprentices and trainees' likelihood of completing their contract of training.

## Findings of research

Likelihood of completion declined between 1995 and 1997, and increased again between 1998 and 2000 (coinciding with the introduction of New Apprenticeships). Likelihood of completion was found to be highest in relation to full-time contracts, Certificate III contracts (more likely to end successfully than Certificate II apprenticeships and traineeships), contracts with government employers, those for trades occupations (as opposed to non-trade), and those with a duration of 1-3 years. People with a disability or with Indigenous status were less likely to complete their contracts.

## Quality of research

### *Method*

**Design**

A mapping model was developed for this project. Rather than matching New Apprenticeship contract commencements and outcomes at unit record level, this approach estimates the likelihood of completion for a given cohort of New Apprentices. It does this by counting completions in a cohort - characterised by occupational group, qualification, full-time status, actual duration and commencement quarter - and dividing the sum by the number of commencements with same characteristics.

The design discusses rationale for using the mapping methodology and also basic underlying assumptions of the approach taken.

**Sample and Data collection**

The apprenticeship and traineeship NCVER collection data is used. The study is not subject to sampling error as national statistics were used.

The sample was commencements with expected completion dates before 1st January 2002 and completions occurring before this same date.

### *Analysis*

The analysis provided completion likelihood data over time, for different types of contracts, and different types of individuals (personal characteristics). There was also an analysis of the underlying assumptions of the mapping methodology undertaken that showed support for these assumptions.

### *Findings and reporting*

The findings clearly follow from the analysis presented. They are clearly linked to the aims of the study.

As this was an exploratory study developing a method for identifying factors influencing completions, the study is not discussed in terms of the wider literature.

A useful concluding section summarising the benefits of the method used and pointing to further research is provided. Some limitations of the study are also mentioned, for example that it does not explore reasons for varying completion likelihoods.

### *Auditability*

A good description of the methodology is provided which would allow this research to be replicated.

## Summation of weight of evidence for factors identified

Likelihood of completion was found to be highest in relation to:

- full-time contracts,
- Certificate III contracts (more likely to end successfully than Certificate II apprenticeships and traineeships),
- contracts with government employers,
- those for trades occupations (as opposed to non-trade), and
- those with a duration of 1-3 years.

This study suggests that those contracts of less than 1 year duration, or less than Certificate III are less likely to complete.

People with a disability or with Indigenous status were less likely to complete their contracts.

Although the research is exploratory in nature, it does however, identify some characteristics of contracts and personal characteristics of the apprentice or trainee that influence the likelihood of completion. It is also not subject to sampling problems as it uses the whole population of apprentices and trainees.

# 4. Author and study reference

**Callan V 2001 *Apprenticeship and traineeship completions*, Queensland Government, the Department of Employment, Training and industrial relations, Queensland.**

## Aim of research

The specific objectives were to determine and report upon:

- The experiences of traineeships and apprenticeships who successfully completed their training,
- The specific factors that assisted trainees and apprentices to complete their training,
- The destination of trainees and apprentices once they completed their training,
- Comparisons between particular groups (completers and non-completers, VET providers who deliver the training and employers who are responsible for supervising the traineeships and apprenticeships.

## Findings of research

Key findings from study one on completers are listed below.

- 14.6% of completers did not have a training plan, compared to 26.6% of non-completers. 1% of VET providers believed trainees and apprentices would not have a training plan.
- Completers were more satisfied than non-completers with the quality of on-the-job training. VET providers' attitudes were similar to those of non-completers.
- Completers and VET providers believed completion of training was due to personal attributes, support and ability to choose the most appropriate apprenticeship or traineeship.
- Compared to completers, non-completers were more likely to be currently unemployed. Completers were more likely to believe that their training assisted them to find a job.
- The majority of completers preferred formal classes, block time, on-the-job training, coaching, job rotation, team based learning and self-paced learning materials.

Findings from study two confirmed the validity of findings from study one. Employers also emphasised the importance of establishing a supportive workplace, providing one-on-one training and being available to trainees and apprentices.

Recommendations based on findings included the promotion of the importance of completing an apprenticeship or traineeship, a review of career guidance and counselling of prospective apprentices and trainees, monitoring of training, the promotion of research results to training providers and additional research.

## Quality of research

### *Method*

#### Design

The use of two methodologies provided greater credibility to the findings. Study one comprised a survey that was sent to completers of apprenticeships and traineeships and a similar survey that was sent to VET providers. Study two used a qualitative research design involving telephone interviews to five trainees who had completed their training and their employers, five apprentices who had completed their training and their employers and 10 employers who had supervised trainees or apprentices who had not completed their training.

#### Sample

In study one, the sample of completers was derived from the Queensland Apprenticeship and Traineeship (DELTA) database, which identifies the outcome (completed or did not complete) of training contracts. This suggests the sample of completers is appropriate. It is not clear how the entire sample of VET providers was derived. This may question the generalizability of results relating to VET providers.

The response rate of completer surveys was reasonably low at 22.8%. A telephone interview was conducted to determine any non-response bias. It was reported that participants were similar to those who did not participate. Statistical evidence to support this conclusion should have been reported in the appendix.

Callan emphasized that comparisons between completers and non-completers should be interpreted with caution, as they involved data from separate cross-sectional samples that were not matched. Consequently, there may be differences between the samples.

It is not clear how the sample was derived for study two. The sample in study 2 covered a range of occupations and industries.

**Data collection**

Study one involved postal questionnaires. Methods were undertaken to ensure that questionnaires would be likely to reach participants and to encourage participation.

In study two, protocols were followed and the same experimenter was used. This reduces experimenter biases and ensures standardisation interviews were recorded, which promotes greater accuracy in recording data.

### *Analysis*

In study one, descriptive statistics (percentages) were provided. 95% confidence intervals were provided to determine the accuracy of true population percentages. Z tests were used to determine if differences in percentages were significant.

### *Findings and reporting*

The discussion of descriptive statistics was clear and thorough. Findings were generally clear.

Findings are clearly linked to objectives. Recommendations are linked to findings and provide important insights.

### *Auditability*

It was not always clear how samples were derived. However, the thorough description of the method, including interview protocols, should make the study replicable. Replication would also depend on whether access to the DELTA database could be gained.

## Summation of weight of evidence for factors identified

Factors relating to completion were use of training plan, quality of on-the-job training, personal attributes of trainee/apprentice, support received from family and friends, choosing an appropriate apprenticeship/ traineeship, supportive workplace, one-on-one training, and workplace supervisor being available to trainees.

The use of two different methodologies suggests that results are valid and reliable. Comparisons between completers, non-completers, employers and VET providers give meaning to the data. However, as noted by Callan, interpretations relating to comparisons of non-completers should be interpreted with caution, as findings only suggest that differences between completers and completers are related to program completion. This compromises generalisability of findings. Furthermore generalising the findings to the overall Australian population is problematic due to the focus on Queensland.

# 5. Author and study reference

**Callan V J 2002, *Review of the printing and graphic arts industry and training provisions*, Callan consulting group, Brisbane.**

## Aim of research

The aim of the consultancy was to conduct a review of the printing and graphic arts industry needs and training provisions to ensure that current and emerging needs are being met, including the need for apprentices and trainees.

## Findings of research

Overall, there was a high level of support for the quality of training. Most current students and graduates expected to stay in the industry for the short or longer term. Eighty percent of graduates and apprentices believe they are learning or have learnt skills relevant to their employment. Compared to students, apprentices and graduates were less satisfied with support from supervisors and information about what to do next and more satisfied with support from their training provider. The majority were satisfied about information received on career opportunities.

Recommendations were provided based on interviews and focus groups.

## Quality of research

### *Method*

#### Design

The research involved a literature review, self-administered questionnaires and a qualitative design that involved interviews and focus groups. Questionnaires were self-administered and were completed by three groups of participants. Current apprentices and trainees, current students and graduates who had completed a traineeship or apprenticeship in the last 3 years, were selected for survey. Each group completed a questionnaire that was similar in content to allow for comparison. The use of different types of interviews suggests that interviews may be susceptible to method bias.

Focus groups involved several group meetings with 4-10 individuals. Teachers, employers, senior executives of the Department of Education and Training and members of industry bodies/RTOs were selected for interview. Focus groups involved meetings with teachers only, employers only, and a mixed group of teachers and employers. There appeared to be an adequate number of focus group meetings and interviews conducted, which improves the validity of findings.

#### Sample

There were an uneven number of students (32), apprentices (64) and graduates (26), which may compromise comparability. The response rate for graduates was low. Background characteristics were included in the appendix.

It is unknown how the samples for the interviews and focus groups were derived. However a list of participants was provided.

#### Data collection

Questionnaires were completed at home or in class. Confidentiality was ensured. Protocols for interviews and focus groups were not provided. Meetings and interviews were facilitated by the same person, which minimizes experimenter biases. There was a lack of consistency in the type of interview conducted, which may result in testing effects. Face to face interviews, telephone interviews and teleconferences were conducted. Confidentiality of interviews and focus groups was maintained.

### *Analysis*

Descriptive statistics were used to report close-ended questions in survey findings. No inferential statistics were used. This questions whether differences between groups were real or whether they arose by chance owing to normal variation in the sample. A random selection of answers to open-ended questions was reported and more detail was provided in the appendix. The major issues to arise from the interviews and focus groups were summarized.

### *Findings and reporting*

Generally, findings are clear and follow the analysis provided. Recommendations were credible, as the author integrated findings from the literature review, questionnaire and qualitative study to form the recommendations. Findings and recommendations could be linked to objectives.

### *Auditability*

The study would be difficult to replicate. An exact copy of the questionnaire was not provided in the appendix. However, the questions were included in the findings. Interview and focus group protocols were also not provided. It was unknown how graduates who had completed an apprenticeship or traineeship in the last thee years were identified. It was also not clear how the sample was derived for the interviews and focus groups.

## Summation of weight of evidence for factors identified

Factors identified relating to the provision of quality training were the relevance of skills learnt, the level of support from workplace supervisors, and the level of information provided to trainees.

Findings were credible and could be linked to objectives. The recommendations were valid, given the diverse methodologies employed and the comprehensive literature review. However, the results can not be generalised to the wider population of apprentices and trainees given the focus on one industry within Queensland. There was also some concern as to the lack of detail in how the samples were derived and the absence of protocols in the interviews and focus groups.

# 6. Author and study reference

**Callan, V J 2000, *Report on apprenticeship and traineeship non-completions*, Queensland Government, the Department of Employment, Training and industrial relations, Queensland.**

## Aim of research

The report aimed to examine the reasons for the high percentage of cancellation rates for apprenticeships and traineeships in Queensland. The specific objectives were to examine and determine:

- the reasons for non-completion of apprenticeships and traineeships in Queensland,
- the destination of former apprentices and trainees who have not completed their training,
- the extent to which partial completion of an apprenticeship/traineeship assists an individual to access the destination,
- ways to encourage former apprentices and trainees to complete their training.

## Findings of research

Study one, the pilot study, indicated that reasons for non-completion were related to lack of awareness of responsibilities, poor training experiences and issues relating to employers.

Study 2 indicated that completers and non-completers of apprenticeships and traineeships differed in terms of certain background characteristics.

Characteristics of trainees relating to higher probability of non-completion were found to be: males, younger age group, Indigenous status, registered to train in the South Coast, school-based, traineeship in sales, food and timber production.

Characteristics of apprentices relating to higher probability of non-completion were found to be: females, Indigenous status, less likely to have completed year 12, literacy/numeracy need or disability, and apprenticeship in food or general trades. Characterstics relating to both apprenticeship and traineeship non-completion were found to be: Indigenous status, location of traineeship in South Coast, and school based.

Factors affecting higher quality of training were found to be awareness of responsibilities, use of training plan, expertise of workplace supervisor, quality of training, and pay.

Some key findings from study 3 relating to the quality of training were that 27% did not have a training plan, only 40% agreed that their boss was a good trainer, just under half did not believe they had access to good trainers (with trainees being significantly less satisfied than apprentices), approximately 50% indicated a desire to complete their training, 45% of those working believed their training assisted them to obtain their job and 61% not working thought the training would help them to obtain employment in the future. Frequent reasons for non-completion were the poor quality of training, poor pay and reasons relating to their boss.

A variety of recommendations were identified from the research. These related to recruitment and selection processes, campaigns to encourage non-completers to return to training, promotion of available support and closer monitoring of training.

## Quality of research

### *Method*

#### Design

The research involved three studies. Study one was a pilot study involving an email survey to determine the key issues to be included in the survey (study three). The email survey was sent to staff within the Department of Employment, Training and Industrial Relations who were familiar with non-completion issues. This suggests that questions in the final questionnaire are valid. Study two involved analyses using Queensland's Apprentice and

Trainee (DELTA) database system to examine differences between completers and non-completers. Study three involved a postal questionnaire to non-completers.

**Sample**
There were only 20 participants in study one. This low number is not of a concern due to the main purpose of the study being to gather information for a later stage.

Study two utilized data from the DELTA database. The report indicated that this database tracks every training agreement in Queensland to its outcome (completed or did not complete). This suggests that the sample is representative of the population of interest. The characteristics of this sample are also reported.

There is a discussion of how the sample for study three was derived. Measures were taken to ensure there were approximately equal numbers of trainees and apprentices. The response rate of 18% was reasonably low, which may question the validity of the findings. However, a telephone survey was conducted to determine any non-response bias. It was concluded that non-respondents were similar to respondents in terms of sex and whether they were in an apprenticeship or traineeship. Statistical evidence to support this conclusion should have been reported in the appendix. Reasons for the low return rate were also not provided.

**Data collection**

Study one collected data using an email questionnaire and study two used data collected from the DELTA database. Study three involved a postal questionnaire. Methods were employed to ensure that questionnaires would be likely to reach participants and to encourage participation. Confidentiality was ensured.

### *Analysis*

Descriptions of the most frequent responses were reported for study one. Descriptive statistics (percentages) were reported to describe the differences in characteristics between completers and non-completers in study two. Study two did not use inferential statistics. Therefore, it is unknown if differences are real and did not occur by chance. Study three reported frequent responses for open ended questions, descriptive statistics (percentages) and Z tests to determine if differences between apprenticeships and traineeships were significant for yes and no responses. Study three also provides a 95% confidence interval to indicate how accurate the percentages are in reference to the population.

### *Findings and reporting*

Findings are credible. The reporting and discussion of findings generally follow the analyses provided. However in study two, it was reported that the differences in characteristics between completers and non-completers were significant. There is no evidence of this, as no inferential analyses were reported in this study. Findings are clearly linked to objectives. Recommendations can be linked to findings and offer valuable insights into strategies that can be put in place to address completion rates for apprentices and trainees overall.

### *Auditability*

The research process was adequately documented and replication should be possible assuming access to the DELTA database and departmental email addresses could be obtained.

## Summation of weight of evidence for factors identified

Characteristics of trainees relating to higher probability of non-completion were found to be: males, younger age group, Indigenous status, registered to train in the South Coast, school-based, traineeship in sales, food and timber production

Characteristics of apprentices relating to higher probability of non-completion were found to be: females, Indigenous status, less likely to have completed year 12, literacy/numeracy need or disability, and apprenticeship in food or general trades. Characterstics relating to both apprenticeship and traineeship non-completion were found to be: Indigenous status, location of traineeship in South Coast, and school based.

Factors affecting higher quality of training were found to be awareness of responsibilities, use of training plan, expertise of workplace supervisor, quality of training, and pay.

The implementation of three studies suggests that findings are valid and reliable. The method was sound and findings could be linked to the objectives. The use of the DELTA database to recruit participants suggests that the study tapped the population of interest within Queensland. However generalising the findings to the overall Australian population is problematic due to the focus on Queensland.

# 7. Author and study reference

**Cully M & Curtain R 2001, *Reasons for New Apprentices' non-completions*, NCVER Adelaide.**

## Aim of research

To explore reasons for non-completion of New Apprentices and to put forward strategies to reduce the scale of the problem. The study focuses on employers as well as non-completers, both the training and employment aspect of the contractual relationship, and working through strategies for reducing non-completion.

## Findings of research

Two-thirds of non-completers in the sample were found to be trainees. Trainees for this purpose were defined as commencing at AQF I or II, or AQF III or IV with a duration of two or less years. Apprentices on the other hand were undertaking AQF II or higher qualifications with a duration of more than two years. In addition, most non-completers were young, and two-thirds worked for organisations with less than 100 employees. Half of these were existing employers with three-quarters of these being trainees.

Most apprentices and trainees undertook the training because they wanted work. However, trainees considered themselves to be less well informed than apprentices about what the traineeship would involve, more likely to say they were obliged to undertake training, less likely to have participated in structured training, less likely to have left for training related reasons, more likely to stop training but remain with the same employer, and much less likely to have recommenced the training if they had changed jobs.

Many non-completers were dissatisfied with the working relationship including dissatisfaction with the workplace and the boss, being used as cheap labour, and being bullied.

Reasons for leaving were:

- apprentices- employer initiated (25%), job related (48%), training related (19%), personal or other (7%),
- trainees- employer initaited (18%), job (58%), training (13%), personal (12%).

For one in six apprentices and trainees, lack of training was cited as a reason for not completing. Furthermore, 29% did not feel they were learning anything. Finally, one in five said that they received no training at all, while only three in five said they received structured training.

Thirty-nine percent of apprentices as opposed to 60% of trainees said they had a training plan, however 62% of trainees and 59% of apprentices reported an absence of discussion to monitor progress.

In contrast, employers had a different view to that of apprentices and trainees. Many employers indicated that they used training plans, had regular discussions on training, provided formal off-the-job and on-the-job training, and structured training beyond the level of what was required for apprentices/trainees.

Forty-five percent of apprentices and 46% of trainees said they were in a better job after training.

## Quality of research

### *Method*

#### Design

To answer the main objectives of the research, the design centred on the conduct of an original survey of non-completers and their former employers. The survey was supplemented by focus groups at which results of the survey were to be presented, and possible strategies to reduce non-completion discussed. Details on the survey design are provided in an appendix to the report.

Although the design relies mainly on one method, its intention is to add qualitatively to the statistical data on attrition rates.

### Sample

*Survey*: The sample for the survey was drawn from NCVER's apprenticeship and traineeship database. Withdrawals occurring during 1999 were used to draw the sample. To help account for lags in registering withdrawals on the database, the June 2000 updated database was used. The overall population of apprentices and trainees who withdrew or cancelled during 1999 was 60,000. The sample was stratified by state/territory, apprentice/trainee, gender and age. Four hundred were chosen for each state and territory and within each state/territory the sample was randomly chosen., with the aim of achieving at least 100 surveys in each state. This was achieved with the exception of Tasmania, for which there were only 97 surveys completed, and Northern Territory where only 57 surveys were completed. The total sample achieved was 797.

This sample was then matched to the employer survey, so that employers of non-completers were surveyed. Four hundred and sixty-two of the employers completed the survey.

*Focus groups*: These were conducted in Adelaide, Melbourne and Sydney. The total number attending was low, 10 apprentices/trainees and 11 employers (7 of who were representatives of Group Training Organisations). This small sample would have limited the usefulness of the focus groups.

### Data collection

The surveys were conducted by phone interview.

## *Analysis*

There are descriptive statistics of the survey results grouped into the sequential stages of non-completion from commencements through to in-work experience of apprentices and trainees, severing the employment contract, and employment/training outcomes. The analysis explores these stages both from the perspective of the apprentice and trainee survey, and the employer survey.

The analysis uses matched comparisons of the employer survey, and the apprentice and trainee survey, to explore areas of similarity and difference in perception.

The outcomes of the focus groups are used in the analysis to illustrate or support the survey results.

An analysis of non-response is also included in an appendix to the report to determine any sample bias. This analysis found that people from the Northern Territory and of Indigenous background were less likely to take part, young people and females were more likely to take part, and people for whom it was not known whether English was a first language or not were less likely to take part. A weighting scheme was used to account for differential rates for people based in Northern Territory, females/males, and younger/older people.

## *Findings and reporting*

The findings are logical and flow clearly from the analysis presented. The findings add to the research in the area because they examine reasons for non-completion. Much of the previous research had been quantitative analysis of attrition rates and their determinants.

Because of care taken in the research design and the sample achieved for the survey, some wider inferences can be made from the research within acknowledged limitations. The report points out that the findings need to be taken in the context of the nature of the sample. That is, it is a sample of non-completers rather than all apprentices and trainees, and a sample of employers who had employed non-completers rather than all employers of apprentices and trainees.

The findings of the survey and discussions in the focus groups have been used to outline some possible strategies to improve non-completion rates.

The literature referred to in the report is more to set the context for the study rather than to reflect or corroborate the findings of this research.

### *Auditability*

The research design and sampling procedures have been very well documented and provide a discussion of the limitations of the research. However, no copy of the survey instrument is attached to the report.

## Summation of weight of evidence for factors identified

Factors increasing probability of non-completion for New Apprenticeships were undertaking a traineeship (as opposed to an apprenticeship), young age (less than 21), and undertaking a New Apprenticeship in an organisation of less than 100 people.

Factors relating to non-completion include dissatisfaction with the working relationship, lack of structured training or any training, and not learning anything. Other factors identified were dissatisfaction with workplace and boss, low pay, and being bullied.

Employers differed with New Apprentices' perceptions with the percentage of employers indicating that they used training plans, had regular discussions on training, provided formal off-the-job and on-the-job training, and structured training being more than apprentices/trainees; i.e. employers and apprentices/trainees had differing view points on the level of training provided, with employers believing it was more than apprentices or trainees.

Although the research relies mainly on one method, the care taken with design and sampling give some level of confidence to the findings of the research, taking into account that it is examining non-completing apprentices and trainees, rather than all apprentices and trainees.

# 8. Author and study reference

**Cully M, VandenHeuvel A, & Goodes, R 2000, *Completed traineeships: A longitudinal survey of outcomes*. Available at: www.dest.gov.au/directory/publications/completedtraineeships.htm**

## Aim of research

Follows the experiences of a group of trainees post-traineeship. In particular, the study focused on three areas: system-design outcomes, skill development outcomes and labour market outcomes. The study refers to the traineeship system that predates New Apprenticeships. These traineeships were usually of about one year in length.

## Findings of research

The assessment of the traineeship system by completing trainees was very positive, with 91% somewhat agreeing, or strongly agreeing that the traineeship was valuable. Where there were problems experienced there was a gap between the expectations of the trainee and what the traineeship delivered. Problems that did occur related to information provision about the work, and terms and conditions of employment (about 38%), delays in starting (9% due to training arrangements and paperwork), and RPL, with 56% being unaware RPL could be applied. Three percent of trainees claimed to receive no training.

One year after the traineeship, 83% of trainees were employed with only 7% unemployed (10% had withdrawn from the workforce, half of which went onto further study). Two in five trainees did some further training in the year after the traineeship.

Certain groups of trainees had poorer outcomes than others. Those who were more likely not be working and have a higher duration of unemployment were those who had not completed year ten, those aged over 25, Indigenous trainees, those unemployed prior to the traineeship, those who had numeracy problems, and trainees who contemplated withdrawing from the traineeship.

## Quality of research

### *Method*

#### Design

The research design is based around a statistical analysis of the DETYA Longitudinal survey of completing trainees. Although aimed at an enhanced understanding of the effectiveness of the traineeship program, the report acknowledges that the analysis cannot provide an absolute measure of effectiveness, as it cannot be predicted what would have happened to the trainees had they not done the traineeship.

DETYA's longitudinal survey of completing trainees was designed as a two wave survey of trainees who began their traineeship in the March quarter of 1996 and subsequently completed it. The first wave was in Spring 1997, about nine months after completion, and the second in autumn 1998, about a year after completion.

#### Sample

The sample for the longitudinal survey was stratified by age, in order to obtain a decent representation of older trainees. Details of the sampling frame and selected sample are provided in an appendix to the report.
Two thousand, three hundred and eighty-two (2,382) people took part in the first survey (conducted between 11 November and 4 December 1997), representing a yield rate of 58% of the selected sample (the selected sample was 4,112 from a possible 13, 786 trainees who began the traineeship in March 1996 and completed it). Two thousand and ninety-eight (88.1% of the original sample of 2,382) took part in the second survey which was conducted between 27 February and 23 March 1998. An analysis of sample attrition showed that none of the differences were statistically significant, hence attrition should not affect the results.

#### Data collection

Wallis Consulting Group undertook the longitudinal survey of trainees who had completed. Trainees were surveyed by telephone approximately nine months after completion and subsequently twelve months after completion.

### *Analysis*
The analysis for this report has been clearly set out to answer the objectives of the study, i.e. system-design outcomes, skill development outcomes and labour market outcomes.

Descriptive statistics are used to analyse much of the survey results. However, multivariate analysis (regression) is used to examine two issues and take advantage of the longitudinal nature of the study. These were the probability of being in work one year after the study, and the determinants of duration of unemployment.

### *Findings and reporting*
The findings are clearly reported, with discrete chapters being used to answer each of the research questions. The findings follow from the analysis presented and are credible.

The findings present the data from different perspectives and a discussion of possible underlying causes for the findings is provided.

As this is a national study based on a large sample (over 2,000) trainees, wider inferences can be drawn in terms of the traineeship system at the time (note however that this system predates New Apprenticeships).

Although there is some discussion of other relevant literature in the area, this is minimal.

### *Auditability*
The study is sufficiently well documented to allow the study to be replicated.

## Summation of weight of evidence for factors identified
Factors identified that can cause problems in the traineeship system were a gap in expectations, lack of information provision, terms and conditions of employment, delays in starting, and lack of the use of RPL.

Other factors identified that can lead to poorer employment outcomes were not completing year 10, being aged over 25, Indigenous status, unemployed prior to traineeship, numeracy problems, and contemplating withdrawal from traineeship.

The large national sample derived for the survey lends weight to the findings within the context of the traineeship system at the time.

# 9. Author and study reference

**Wood, S 2004, *Fully on-the-job training: Experiences and steps ahead* NCVER, Adelaide.**

## Aim of research

To evaluate the extent and effectiveness of fully on-the-job training and assessment for traineeships and apprenticeships from the perspective of client satisfaction. The study looked at the extent of the fully on-the-job mode, strategies being undertaken by RTOs, and student satisfaction.

## Findings of research

The research found that in 2000 there was no one national definition of fully on-the-job training. In this research the fully on-the-job mode refers to the majority of the theoretical training being undertaken on-the-job by the employer as opposed to off-the-job.

For 2000, it was estimated that there were approximately 6,500 fully on-the-job apprentices/trainees excluding Victoria and Tasmania.

It was found that on balance RTOs were in favour of the fully on-the-job mode, however there were some concerns. Concerns raised related to a lack of networking opportunities outside the company, competing work and study loads, insufficient theoretical training, lack of employer commitment and training skills, and that learning was specific to one workplace only.

Overall, apprentices and trainees were found to be satisfied with the fully on-the-job mode of traineeship/apprenticeship. Eighty-one percent of apprentices/trainees rated the employer as being good/very good/excellent, 76% rated the traineeship as being good/very good/excellent, and 73% rated the training school as being good/very good/excellent. Concerns raised related to repetitive module content, lack of support from RTOs, and lack of feedback on performance.

Key drivers of satisfaction for apprentices/trainees were found to be training school experience in terms of the training usefulness, the potential for further development in terms of training usefulness, efforts of employers during the training activity, and clear understanding of the apprenticeship/traineeship in relation to pre-course activities.

## Quality of research

### *Method*

#### Design

The design of this study used a three-stage methodology in order to answer the aims of the research. The study also examined fully on-the-job apprenticeships and traineeships from the perspective of RTOs and from the perspective of trainees/apprentices. The three stages were:

- The preparation of samples for the study and interviews with RTOs on issues and perceptions to do with fully on-the-job traineeships/apprenticeships.
- Secondary research on defining fully on-the-job, including the conduct of focus groups with apprentices/trainees to establish issues for inclusion in the questionnaire, and development of a questionnaire for stage 3, including pilot testing.
- Surveys of apprentices/trainees undertaking fully-on-the-job traineeships/apprenticeships.

No employer views were sought.

#### Sample

*Sample for RTOs*:: Thirty-six RTOs were interviewed in total. Although a distribution of completed RTO interviews is provided, it is not clear how these RTOs were selected, or if any refused to participate.

*Focus groups::* These were chosen so that two of the focus groups contained young apprentices/trainees with little or no experience prior to the apprenticeship/traineeship, and two with older apprentices/trainees that had a least two years work experience prior to embarking on their apprenticeship/traineeship. It would appear that these were all Melbourne –based. None of the apprentices/trainees in the focus groups were fully on-the-job. There is also no information on how many attended each focus group.

*Apprentice/trainee sample*: the original plan was to interview 1400 fully on-the-job apprentices/trainees. However given problems identifying fully on-the-job for the recruitment for the Melbourne focus groups, it was decided to interview until the field budget ran out. In total, 860 apprentices/trainees were interviewed with about three-quarters of these being in the three eastern states (Victoria, NSW, and Queensland). There was also a focus on non-trades, with only 56 trades apprentices being interviewed. In addition, 1,612 interviews were terminated through a screening process, and a further 98 refused to be interviewed.

### Data collection

RTOs were interviewed by telephone, and apprentices/trainees were interviewed using CATI. A copy of the interview protocol for the RTO interviews, and a copy of the apprentice/trainee survey is provided in appendices to the report.

## *Analysis*

A broad estimation of numbers involved in the fully on-the-job mode is provided based on identifiers in AVETMISS and the trainee/apprentice training contract. Guesstimates were used for Victoria and Tasmania.

Analysis of the RTO interviews involved a summation of issues arising from the interviews. Direct quotes from the interviews are used to support the summing up.

For the apprentice/trainee survey, descriptive statistics of the survey results were provided. In addition, tests of significance were conducted across categories of respondents (trainee AQF I-II, trainee AQF III+, and apprentice). However, no detail is given on which tests of significance were conducted (e.g. t-test, ANOVA). In addition, some of the significance tests are of dubious value to the study (e.g., testing for differences in ages of respondents) or are based on very small numbers (4 people or less).

Factor analysis and regression analyses were also conducted on the survey results. The factor analysis was conducted to establish key satisfaction drivers, and regression was conducted to determine the relative importance of each satisfaction dimension. However, no detail is provided about how these analyses were carried out, for example method of factor analysis or rotation method. In addition, several of the factors obtained contain only one or two variables, which weakens the 'robustness' of these factors.

## *Findings and reporting*

The findings are contained in discrete chapters devoted to defining on-the-job training, ensuring the quality of fully-on-the-job training (as seen by RTOs), and key satisfaction drivers (as seen by apprentices/trainees).

However, the findings do not always clearly follow from the analysis. Some statements made are not clear or do not seem relevant to the context of the study. This lessens the credibility of the overall findings.

The findings indicate that 384 non trainees/apprentices were given 'short' interviews. These interviews were not part of the original research design, and it is not clear why they were undertaken or of what relevance they are to the study.

There is no weighing up of the advantages and disadvantages of fully on-the-job traineeships, and no overall discussion/conclusion bringing the different elements of the study together.

The findings are not discussed in the broader literature in the area, or corroborated by other sources.

## *Auditability*

Although some information is given on research design, the level of information provided on sampling and analysis techniques would make replicability of the study difficult.

## Summation of weight of evidence for factors identified

Concerns raised by employers related to a lack of networking opportunities outside the company, competing work and study loads, insufficient theoretical training, lack of employer commitment and training skills, and that learning was specific to one workplace only.

Concerns raised by apprentices and trainees related to repetitive module content, lack of support from RTOs, and lack of feedback on performance.

Given the general lack of clarity in reporting the findings, and some concerns over the sampling method and analysis, not much weight can be given to the key factors identified.

# 10. Author and study reference

**Patterson J and Markotic R 1999, *Review of arrangements for on job traineeships in South Australia*, Department of Education, Training and Employment, Adelaide.**

## Aim of research

This research was commissioned by the Accreditation and Registration Council (SA) for the purpose of assessing compliance with, and effectiveness of, the quality assurance arrangements in place for the delivery of on-job traineeships. The nine objectives of the review were to:

1. investigate the relevance, accuracy and timeliness of the information relating to on-the-job traineeships provided to employers by RTOs,
2. investigate whether training provided was relevant to the described industry competencies, and that it related to tasks performed in the work environment,
3. investigate compliance of RTOs in the development of a training plan and in undertaking a mentoring/assessing role,
4. investigate employer satisfaction with the role of the RTO in on-the-job traineeships,
5. investigate issues for employers in managing and providing structured training on the job,
6. assess the level of use and relevance of training resources available to employers,
7. investigate methods used by employers and RTOs in validating the achievement of competencies,
8. investigate the effectiveness of on-the-job training arrangements where the employer is also an RTO,
9. identify employer, RTO and trainee perceptions of advantages and disadvantages of on-the-job traineeships.

The ninth objective was not specifically requested in the terms of reference for the review.

The study focussed on on-the-job training arrangements for trainees commencing in 1998 in the vocations of Small business and Office administration.

The study refers to the traineeship system that predates New Apprenticeships. These traineeships were usually of about one year in length.

## Findings of research

The review found that trainees, employers and RTOs were generally supportive of the value of on-the-job traineeships.

Main factors identified that could affect quality of on-the-job traineeships were:

- inadequate provision of information on traineeships to employers, trainees and RTOs,
- inadequate use of RPL,
- lack of development of training plans,
- the extent and breadth of structured training,
- the quality of learning materials,
- the reliability and validity of assessment,
- extent of monitoring and record-keeping by RTOs and employers,
- extent of employer commitment, and
- expertise of workplace surpervisor.

As an outcome of this research, a series of recommendations were listed under seven headings:

1. Value of on-job traineeships,
2. Information provision,
3. Quality assurance processes,
4. Training and assessment,
5. Monitoring and record keeping,
6. Employers' capacity to train,
7. Further recommendations.

In keeping with the commission and aims of the research, these recommendations were all intended to specifically apply to traineeships in South Australia. The recommendations were clearly stated and reflected the findings of the research.

# Quality of research

## *Method*

### Design

This study began with a review of two similar studies already conducted in Queensland. The report also noted that a similar study had commenced in Tasmania.

A second component of the study was a review of the existing traineeship picture in South Australia looking at a range of relevant background factors including RTO requirements, contracts of training, trainee statistics, and training programs.

Traineeship data was collected by questionnaires mailed to the respondents' home addresses. Data for employers was collected by means of a survey conducted either by a telephone or by visit to the worksite. Data for RTOs was collected by questionnaires mailed to personnel in all RTOs followed up by a visit to each RTO.

Profiles of the total trainee database samples were developed by analysis of demographic data. The purpose of this analysis was to 'ascertain whether the respondent samples were representative of the broader population of small business and office administration on-the-job trainees and their employers. The outcome of any such comparison was not reported.

### Sample

Questionnaires were sent to 1220 trainees, 164 employers and 28 RTOs (eight of whom were also employers).The sample of trainees comprised 822 small business and 398 office administration trainees identified as commencing on-job traineeships in 1998. It is not clear whether this sample represented the entire populations of the two categories or selections from their populations. Responses were received from 227 small business and 111 office administration trainees (28% response rate in both cases).The sample of 28 RTOs comprised all those providing mentoring/ assessing services to the 1220 students in the student sample. Of the total of 85 questionnaires sent to these RTOs, 26 were returned by staff members (a response rate of 31%). This figure indicates that not all RTOs were represented in the staff responses, however, each of the 28 RTOs were also visited for the purpose of obtaining additional information. The sample of 164 employers was selected randomly from a database of 656 employers. The report does not elaborate on how the random selection was achieved. Responses were received from 42 employers (33% response rate).

### Data collection

- Data was collected from trainees using a survey questionnaire mailed to their home address.
- Data was collected from RTOs using a survey questionnaire mailed to individual trainers through their RTO, and via a structured, in-person interview at the RTO's worksite.
- Data was collected from employers using a survey questionnaire administered by telephone, and via a structured, in-person interview at the employer's worksite.
- Seven survey questionnaires (one student, three RTO, and three employer) were included in the appendices. All of the questionnaires were well designed and comprehensive.

## *Analysis*

Separate chapters in which collected data was reported and analysed were dedicated to each of the three groups surveyed (trainee, RTO, employer). Responses were analysed quantitatively. Where there were qualitative aspects to be reported on, participants were asked to respond by means of Likert rating scales; the scale rating results were then analysed quantitatively.

Trainee respondents were asked for information relating to demographics, employer/employment, selection for traineeship, assessment, and opinions on various aspects of their traineeship.

RTO respondents were asked questions about: their organisation, their role in the organisation, training methods and assessment. They were also asked their opinions on various aspects of traineeships and their suggestions for training program change. During the site visits, RTO representatives were asked questions relating to underlying organisational aspects of the trainee programs.

Employer respondents were asked for details about their company and its industry, its trainees and their selection, its training programs and how they were developed, and trainee assessment. They were also asked their opinions on various aspects of traineeships and their suggestions for training changes. During the site visits, employer representatives were asked questions relating to training providers, training materials and training provision.

Samples of all questionnaires and interview schedules are included as appendices. The questionnaires were comprehensive (50 questions for RTOs, 50 for employers and 35 for trainees) and well constructed. The questions addressed all nine objectives listed under the aims of the research.

Responses to questions contained in the surveys and interviews are given statistically in tabular form in the appendices.

### *Findings and reporting*

Findings are reported using a combination of descriptive and numerical approaches. The findings are first reported factually with limited analysis, a separate chapter being devoted to each group (trainees, RTOs and employers). A further chapter was devoted to key findings; these addressed each of the nine objectives of the review. Reporting and discussion of the key findings in this chapter was largely descriptive but soundly based on the data obtained. Again the reporting was mainly factual, only a small amount of interpretation of the results being offered by the reviewers. No comparisons were made with findings of the similar research conducted in Queensland.

### *Auditability*

Apart from the issue concerning a lack of precise details about how the survey samples were derived, the research is well structured and thoroughly performed. The high degree of documentation, including comprehensive questionnaires and interview schedules, would make the research relatively easy to replicate.

## Summation of weight of evidence for factors identified

Main factors identified that could affect quality of on-the-job traineeships were:

- inadequate provision of information on traineeships to employers, trainees and RTOs,
- inadequate use of RPL,
- lack of development of training plans,
- the extent and breadth of structured training,
- the quality of learning materials,
- the reliability and validity of assessment,
- extent of monitoring and record-keeping by RTOs and employers,
- extent of employer commitment, and
- expertise of workplace surpervisor.

Leaving aside the issue concerning derivation of the samples, and recognising that the study operated within set constraints of being restricted to the occupational areas of small business and office administration the weight of evidence for the findings was potentially good.

The findings and associated recommendations would have a very high degree of relevance to small business and office administration traineeships in South Australia. Because of their broad nature, it is also likely that, as was intended under the terms of the research, the recommendations could be generalised to traineeships in other occupational areas in South Australia.

# 11. Author and study reference

**Economic Research Services 2000 Evaluation of Modern Apprenticeships: 1998 survey of employers, DfEE, Great Britain.**

## Aim of research

To evaluate the impact of Britain's Modern Apprenticeships (MA) on the amount and quality of work-based training for young people. The evaluation also examined the extent to which MAs have been effective in alleviating skill shortages and training skill levels, determining value for money in increasing intermediate work-based training opportunities, and offering guidance on how high-quality training can be developed and maintained through MAs.

## Findings of research

The overall assessment of MAs was that they were well received by employers, and that they provided a means of delivering on-the-job training in a structured program leading to a nationally recognised qualification. MAs have enhanced the quality of training and have extended structured training into new areas. Employers report that since the introduction of MAs they are attracting better quality applicants for intermediate level training, and a general improvement in the development of intermediate level skills. Many smaller employers, and some in non-traditional sectors (such as IT) use MAs as the method of training intermediate level staff.

Factors cited by employers as being important in their decision to introduce MAs were a need for new skills, staff replacement and company growth. A number of employers believed that awareness of MAs among young people was increasing.

Most organisations experienced no problem with training content, and a majority of employers train MAs predominantly on-the-job. In a minority of cases, workplace trainers, although skilled, were not formally trained to train.

Only one-third of employers said that they had input into the content of off-the-job training. In addition, where key skills had not been integrated with other MA training and work experience, employers believed apprentices to be irritated by having to perform irrelevant tasks. Many employers also commented on the amount of paperwork and jargon surrounding MAs.

Employers listed insecurity of and timing of funding as an area where MAs could be improved. This has an impact on employers committing to a training place for a period of up to four years.

## Quality of research

### *Method*

**Design**

The design for this evaluation was based on surveys and interviews with employers. Two questionnaires were developed as part of the survey. One was designed for telephone style interviewing, and the other was a semi-structured questionnaire for the face to face interviews. The surveys were piloted with 20 face-to-face and 20 telephone interviews with employers, and subsequently the questionnaires were slightly refined.

The design for the study however gains only the perspectives of employers, and not other stakeholders in the system.

**Sample**
As there was no central list of employers of MAs, Training and Enterprise Councils (TECS) and training providers were approached for lists of employers employing MAs. Most TECS (about 90%) and a third of a list of about 1500 training providers provided information on about 14000 employers. The authors of the report also claim that the employer information obtained was of variable quality.

Various factors were taken into consideration in determining the sample for the face-to-face interviews including, for example, achieving a balance between employers in 'traditional' and 'non-traditional' sectors for apprenticeships. The sample was derived from this newly developed database of employers.

The sampling for the telephone interviews was designed to reflect the distribution of Modern Apprenticeships across frameworks (traditional industry sectors versus non-traditional sectors). The DfEE database of apprentices was used, as a basis for the sampling distribution as it was considered more robust than the employer database.

In total, 1500 telephone interview and 200 face-to-face interviews were conducted. Completed interviews were within 5% of targets for most frameworks. Although there is a breakdown of interview respondents by sector provided, no details of non-response is provided.

**Data collection**
Data was collected face-to-face for 200 employers and by telephone interview for 1500 employers. The interviews took place between April and June 1998.

## *Analysis*
The analysis of the survey results used descriptive statistics. Crosstabs were used to analyse the data in a variety of ways including across and within frameworks, size of business, TEC contracted versus training provider contracted employer and others.

The report notes that no regional analysis was conducted, as the distribution of employers by region in the sample is uneven.

The analysis is divided into five sections covering issues of becoming involved in MAs, recruitment of MAs, delivery of training, developing intermediate level skills, and impact of MAs.

The analysis also includes observations from the face-to-face interviews on these issues.

There were no inferential statistics used in the analysis.

## *Findings and reporting*
The findings follow from the analysis provided and are credible within the scope of the study. The findings are linked to issues raised as part of the aim of the evaluation, and the conclusions in the report are directed at meeting the aims of the study. They are important as they provide valuable information on the views of employers in regard to Modern Apprenticeships.

Given the size of the sample, some wider inference can be made in terms of the views of employers of Modern Apprentices in 1998.

The evaluation does not use other literature to support or to compare and contrast the findings of the current study. Examples from specific interviews are used to illustrate the findings.

### *Auditability*

The evaluation is well documented, with specifics of the methodology provided in an appendix to the report.

## Summation of weight of evidence for factors identified

Main factors relating to quality training identified in this report are:

- the level of integration of key skills into the overall training and work;
- the relevance of content of off-the-job training;
- excessive paperwork for employers; and
- insecurity and timing of funding impacting on employer's commitment to providing a training place for up to four years.

The findings are plausible given the sample size and representativeness of the sample. However, the study is specific to Modern Apprenticeships in England and Wales in 1998, so the findings would not be generalisable to the current Australian situation.

# 12. Author and study reference

**Favero J 2003 'Quality' training – challenges for teachers of workplace training for trainees and apprentices in *The sixth Australian VET Research Association Conference: the changing face of VET*, Nowra, NSW.**

## Aim of research

To explore issues faced by teachers in providing training for apprentices and trainees following reviews of the apprenticeship and traineeship system, particularly the Schofield review in 2000. This was done by way of a case study located at Kangan Bateman TAFE in Victoria.

## Findings of research

There are many issues facing teachers in providing training for apprentices and trainees including meeting the demands for regulatory compliance, the changing role of TAFE teachers, concerns about transferability of skills learnt on the job, the reluctance of some employers to release trainees for training and concern over employers' use of incentives, time to travel to workplaces, and funding concerns.

Teachers' concepts of quality training were found to be different to Schofield, in that they are student focused rather than process driven. There was found to be a conflict between compliance to demonstrate quality delivery, and the need to be flexible and adaptive to student needs. Teachers found that the need for compliance distracted from teaching activities.

## Quality of research

### *Method*

**Design**

The design for the study utilised a case study approach. The case study location was Kangan Bateman Institute of TAFE in Victoria. The rationale for this approach is firstly that it elicits the meaningful reality of teachers while having minimal impact on their day to day activities, and it also provides a way of interviewing key informants in the process.

Within the case study, data was gathered via focus group interview with teachers, policy documents, and time spent on teacher activities.

A drawback of the single case study approach is that of generalising the results to other institutes. Even within Kangan Bateman it would be difficult to generalise because of the small sample of teachers involved. The report also acknowledges some other limitations to the work.

**Sample**

*Focus groups*: Two focus groups were conducted with a total of 8 teachers, although no detail on how people were selected for the focus groups is provided. This greater detail may be provided in the Master's thesis from which this paper is derived.

*Log of activities*: Eight teachers were selected to log their activities, in minutes, over a two-week period. No detail is provided on how the 8 teachers were selected, although they were not the same 8 teachers as participated in the focus groups.

**Data collection**

Data for the focus groups was collected by interview, audiotaped and transcribed. Data for time spent on teaching activities was collected by way of activity logs filled out by the teachers. Policy documents were collected by way of a literature review.

### *Analysis*
Due to the nature of the research, very little quantitative analysis was undertaken. The analysis mainly included a discussion of the focus group results. This analysis focused mainly on areas of concern. The analysis also compared and contrasted quality issues from the teacher's perspective versus that put forward by Schofield.

There was also a basic analysis of teacher's activities. This consisted of a percentage breakdown of the teacher's activities in the areas of teaching, compliance, liaison, administration, and travel.

### *Findings and reporting*
The findings follow from the analysis, and are credible within the scope of the study. Given the case study approach, caution would need to be exercised in drawing any wider inference from the findings. Where relevant, the findings are compared to other literature in the area.

The findings are interesting in that they provide a different perspective on quality to that proposed by Schofield, and draw out implications for policy and practice.

### *Auditability*
The research process is fairly well documented. It needs to be kept in mind that this paper is drawn from a larger thesis work, and more detail on method would be contained in that larger work.

## Summation of weight of evidence for factors identified
Main factors impacting on quality identified in this study are:

- excessive compliance demands on teacher's time;
- the level employer support for training;
- employer use of incentives not being as intended; and
- lack of transferability of apprentice and trainee skills.

This study adds to the literature in the area as it provides a different perspective on quality that is more student centred. However, generalising the findings is problematic as they are based on a small sample of teachers on one TAFE institute.

# 13. Author and study reference

**Fuller A and Unwin L 2003 Creating a Modern Apprenticeship: a critique of the UK's multi-sector, social inclusion approach *Journal of Education and Work*, Vol 16(1), pp. 5-25.**

## Aim of research

To provide a critique of UK's Modern Apprenticeship system. In particular it examines outcomes from the Advanced Modern Apprenticeship (AMA) which lead to National Vocational Qualification Level 3.

## Findings of research

Attainment and leaver figures suggest that employers do not feel ownership of the program. Additionally, there is not a strong demand for level 3 skills in sectors in the UK without a strong tradition of apprenticeships.

Statistics show that the majority of apprentices are leaving the AMA without completing the level 3. More traditional industries associated with apprenticeships have better outcomes than the service sectors. Indeed, the service sectors have the worst record of achievement with only 1 in 10 completing a level 3 qualification (as compared to 40% completing for engineering).

Few sectors achieved an attainment rate of more than 50% for the full level 3. This is surprising since the minimum outcome of the AMA is supposed to be a level 3. A large percentage of leavers (non-completers) stay with the same organisation as where they where they were employed for the AMA.

Business administration, a sector without a strong tradition of apprenticeships, had the highest number of recruits. Other service sectors were also represented in the top 10 for recruits. Additionally, the service sector has the highest turnover of recruits (with engineering and craft the lowest). One of the reasons for this is that the service sector has lower expected and actual duration of training.

Entry to the AMA is being delayed to a later age, with relatively few starting at age 16, and about half starting at age 19-24. It is suspected that many of these may be existing workers. In the services and social sectors, more than 70% of recruits are aged over 18.

The article concludes that providing for the disparate needs of young people can not be achieved by a 'one size fits all' apprenticeship system.

## Quality of research

### *Method*

**Design**

Much of the article is speculative and does not have a research design as such. However, it does use a statistical picture of participation in AMAs to support the arguments.

**Sample**

The statistical picture was derived from census data from the DfES Modern Apprenticeship Database. Within the data base, there are a substantial number of recruits classified as other due to errors when the data was collected.

**Data collection**

As above, the article says that the statistical data was collected from DfES Modern Apprenticeship Database. However, no further information on how data categories etc were derived is provided.

### *Analysis*
Descriptive statistics (numbers and percentages) were used for the analysis of the statistical data. Much of the other analysis is speculative in nature, making inferences from the data presented.

### *Findings and reporting*
Much of the findings for the statistical picture follow from the analysis of the statistics presented. These findings are credible and they are based on census statistics from the DfES. However, the authors state that 'they try to look at the reality behind the figures'. Hence, some of the findings are speculative in nature. Nevertheless, the authors use the statistics and other literature in the area to support their contentions.

The findings from the statistical analysis are generalisable within the context of Advanced Modern Apprenticeships.

### *Auditability*
The paper does not go into much detail as to how data categories were derived, however as the data is based on the DfES Modern Apprenticeship, the statistical findings should be replicable.

## Summation of weight of evidence for factors identified
Two of the main issues raised in relation to high quality of apprenticeships (particularly in terms of qualification outcomes) are high levels of employer commitment, and traditional industry sectors, with these two factors being inter-related.

The statistics support findings on completion by sector, however the employer commitment factor is inferred rather than as a result of direct evidence from research. The findings also need to be placed in the context of the Advanced Modern Apprenticeship system in the UK.

# 14. Author and study reference

**Grey K, Beswick W, O'Brien C, & Ray D 1999 *Traineeship non-completion*, REB report 1/1999, Commonwealth of Australia.**

## Aim of research

This paper examined three issues relating to the non-completion of traineeships. Firstly, to what extent is non-completion a problem? Secondly, what is the nature of the non-completion problem? Which factors influence non-completion? Thirdly, the research examined options for intervention. The research refers to the traineeship system that pre-dated New Apprenticeships. These traineeships were typically of about one year in length.

## Findings of research

The key findings of the research were that:

- non-completion rates for traineeships is quite high at about 40%;
- personal characteristics of the trainees (low levels of educational attainment and prior unemployment) increase the probability of non-completion;
- non-completers have poorer short term employment chances;
- small business and hospitality/tourism traineeships had higher rates of non-completion;
- 55% of non-completers leave voluntarily and do so for a variety of reasons. The three most important reasons for leaving cited were low wages (32% thought this was a very important for leaving), poor workplace relations (32%), and inadequate training (31%).

## Quality of research

### *Method*

**Design**

Non-completion rates were calculated using a formula x/y where x are trainees coded as withdrawn, terminated or not placed and y is trainees recorded on the DEETYA administrative data base who were expected to complete less than those for whom no completion is recorded. The data used pertained to trainees who commenced in 1995, 1996 and the first quarter of 1997.

To answer the question on characteristics of non-completers, a logistic regression model was used with the odds of non-completion used as the dependent variable and demographic characteristics explanatory variables.

To determine trainee's reasons for non-completion, a survey of trainee non-completers was undertaken. The survey covered issues such as reasons for learning the traineeship, access to and awareness of the traineeship system, experience of the traineeship and activity after the traineeship.

The research design was clearly developed to answer the aims of the project.

**Sample**

Data on non-completions and characteristics of non-completers was obtained from a census of records on the DEETYA administrative database.

For the survey, attempts were made to contact all trainees who were thought to have ceased the traineeship before completion in the September quarter, 1997. This was a total of 3,904 trainees. Of these 1,690 responded, giving an over all response rate of 43%. A profile of survey respondents showed a close similarity to the overall sample of respondents, meaning that there is a good chance that the sample is not

biased. The rationale for the sample and eventual response rate provides a high level of confidence in the results obtained.

**Data collection**
The DEETYA administrative database was used to determine the non-completion rates and characteristics, so is prone to any limitations inherent in this database. Survey data of non-completing trainees was collected by means of a telephone interview.

### *Analysis*
Non-completion rates were calculated using the formula mentioned in the methodology. The analysis of non-completions included a comparison to other groups including separation from jobs similar to traineeships, apprenticeship non-completion rates, and other education and training non-continuation rates.

Descriptive statistics and logistic regression analysis to examine the influences of demographic factors on non-completion. Descriptive statistics were used to analyse the survey results.

Technical reports on sampling, formulas used and statistics used support the overall analysis.

### *Findings and reporting*
The findings are presented clearly and methodically and flow directly from the analyses of the results. Given the research design, the findings presented are credible. Given that census data was used for the first two phases of the study, and a large sample for the third phase, the results are generalisable (within the given timeframe of the study).

The final section of the report clearly integrates the main findings as a basis for developing strategies to improve non-completion.

### *Auditability*
The methodology for the research is clearly documented. However there is no example survey instrument attached which would have been of assistance to people wanting to replicate the study.

## Summation of weight of evidence for factors identified
Factors increasing probability of non-completion included personal characteristics (low levels of educational attainment and prior employment), and type of traineeship (small business and hospitality/tourism). Other factors increasing the probability of non-completion included low wages, inadequate training and poor workplace relations.

The research uses a defensible method. The findings flow clearly from the analysis of the results. The fairly large sample obtained for the survey results lends weight to the findings of the survey. However the findings need to be taken in the context of them pre-dating the New Apprenticeship system.

# 15. Author and study reference

**Harris et al 2001 *Factors that contribute to retention and completion for apprenticeships and traineeships*, NCVER, Adelaide.**

## Aim of research

The research aimed to explore factors that influence retention and completion in apprenticeships and traineeships. The research also examined those factors amenable to change, so as to increase retention and completion, and examined possible interventions to enhance retention and completion.

## Findings of research

The research proposes ten factors that contribute to the process of retention. These are: the individual having a strong sense of agency; the individual having support from family/friends; the suitability of the initial placement; a previous satisfying experience relating to occupational area; supportive workplace supervisors; supportive work/learning cultures; participation in structured training (either off-site at an RTO, or in training rooms at the workplace away from the actual work); reliable transport for apprentices and trainees from home to work; the availability of alternative career pathways; and the value placed on the qualification by the apprentice or trainee.

The report also proposes a model of the process of retention in apprenticeships and traineeships. Factors identified in this model fall under the headings of antecedent, context, process (training, workplace and accidental), and outcomes factors.

## Quality of research

### *Method*

**Design**

Uses a qualitative research design involving interviews with apprentices and trainees undertaking training (318 interviews), who had completed training (35), RTO teachers and trainers (51), and workplace supervisors and managers of apprentices and trainees (33). A limited number of occupations were selected for the study (cooks, sales representatives, hairdressers, fabrication engineering tradespersons, and computing technicians) across five states based on a preliminary analysis NCVER's apprenticeship and traineeship collection. Both high and low completion rate occupations were chosen. Sales representatives, computing technicians, fabrication engineering tradespersons, and hairdressers were chosen as high completion occupations. It was decided not to interview non-completers.

The researchers opted for a grounded theory approach; so as to see what emerged from the data collected. Although the authors do not discuss limitations of the research as such, the approach taken means that the factors derived are not based on any objective evidence.

**Sample**

A criterion for sample selection is given, as well as a discussion of how the final selection of occupations to be examined was derived. Snowball sampling was used to obtain interviewees for the study. Demographic characteristics of the sample indicates that it is reasonably consistent with that of apprentices and trainees overall.

**Data collection**

Interview data was collected in whatever manner was convenient, rather than by one consistent method (face-to-face, phone, and group). It is not clear from the report how many interviewers were involved in the study. A sample interview schedule is included in the report.

### *Analysis*
Analysis took place at the level of all the information collected, from the perspective of each industry, and from the perspective of type of interviewee. This adds some richness to the study. To add further richness, included in the analysis were two 'case studies' of workplace supervisors.

There is no evidence however as to how the general factors contributing to the process of retention were derived from the analysis undertaken. Similarly for the proposed model of the process of retention in apprenticeships and traineeships.

### *Findings and reporting*
The overall description of findings is credible within the scope of the 437 interviews undertaken. They provide a fairly rich description of interviews undertaken, quoting examples from the interviews where appropriate. Although they are not surprising, they are not cross-validated to any other data source. It would have also been good to reflect these findings back on existing literature. The reliance on interviews to undertake the research limits the generalisability of the findings.

### *Auditability*
A reasonable description of the research process is provided, and a sample interview schedule is provided. Given the nature of the research however, it would be difficult to replicate.

## Summation of weight of evidence for factors identified
Types of factors identified that contribute to process of retention included personal characteristics of and the personal environment surrounding the apprentice/trainee, the individual having a strong sense of agency; the suitability of the initial placement; a previous satisfying experience relating to occupational area; supportive workplaces (supervisor and culture); participation in structured training (either away from the workplace or rooms at the workplace away from actual work); reliable transport to and from work; the availability of alternative career pathways; the value placed on the qualification by the apprentice or trainee.

The weight of evidence for the factors identified need to be taken in the context of the research methodology. Although a useful addition to the research in this area, the reliance on one qualitative research methodology means that it would not be appropriate to generalise the factors derived to the overall population of apprentices and trainees.

# 16. Author and study reference

**Kilpatrick S, Hamilton V & Falk I 2001 Issues of quality learning: Apprenticeships and Traineeships in rural and remote *Australia Australian and New Zealand Journal of Vocational Education Research* Vol (10), pp. 1-26.**

## Aim of research

This paper was intended to highlight issues relating to the quality of VET provision in rural and remote Australia, particularly in relation to apprentices and trainees. Based on a literature review and analysis of research, the paper reviews changing approaches to measurement of the quality of vocational learning. It focusses on the quality of vocational learning as measured from the perspective of the learner ('the process of learning') as opposed to a traditional quality assurance approach focussed primarily on measurement of outcomes such as increased productivity/workplace relevance of the trainer, or assessment/employment outcomes of the trainee.

## Findings of research

Through discussion and analysis of the findings under three themes: *the quality and professional development of educators and workplace trainers*; *literacy and numeracy*; and *the nature and quality of training packages*; the paper highlighted various quality related problems which arose in the delivery of VET, particularly in rural and remote areas. Issues identified as having a bearing on quality included the following:

- the effectiveness of communication between workplace trainers (who, in rural and remote Australia were often the employers themselves) and apprentices/trainees, and between training providers and employers;
- problems with professional development of trainers, especially the negative impact of poor access to training;
- a need for good communication skills for trainers and their ability to develop a mentoring approach with apprentices/trainees;
- shortages of good quality qualified trainers (including workplace trainers);
- levels of apprentice and trainee literacy/numeracy being below those required by the training materials (an issue said to be particularly relevant where learning is via a flexible mode relying on print and electronic materials);
- heavier reliance on flexible modes (requiring good literacy and numeracy skills) in rural and remote Australia;
- the possibility that, despite the flexibility of training packages being beneficial to quality learning, it can lead to assessment-focussed training which may be to the detriment of generic transferable skills.

## Quality of research

### *Method*

**Design**

This paper comprised two parts: firstly a review of publications relating to quality assurance issues in VET, and secondly an analysis of three related reports published by the Centre for Research and Learning in Regional Australia (CRLRA), University of Tasmania (CRLRA 2000, *Managing change through VET; The role of vocational education and training in regional Australia*; CRLRA 2000, *Interim report to ANTA*; and CRLRA 2001, *Building dynamic learning communities: Ten regional case studies*.)

**Sample**

The paper gives only very brief detail of the purpose and conduct of the CRLRA studies from which data were obtained. More detail is available from the web-based reports of these studies.

**Data collection**
Data for the paper were obtained from the CRLRA studies. Again, more detail is available from the web-based reports of these studies.

### *Analysis*
In reporting on the data obtained, this paper uses two data analysis techniques:

- a thematic analysis in which transcripts from the CRLRA reports were coded and analysed for identifiable themes and patterns.
- a second analysis of the thematic data using what are referred to as *vocational learner checkpoints* (VLCs) as a framework for synthesising the thematic analysis (VLCs are a tool devised by Vallence, K, Falk, I and Kilpatrick, S in 2001 in an unpublished project report, *Assuring the quality of vocational learning*, Office of Post-Compulsory Education and Training, Hobart, Tasmania.) Use of the VLCs was intended as a cross-check for the thematic analysis and as a way of focussing the analysis on the issue of quality learning from the perspective of the learner– the focus of the paper.

### *Findings and reporting*
As previously mentioned, the findings are grouped and reported under three themes. This mode of reporting works quite effectively, the group themes serving to identify three important areas of concern. The issues are plainly and concisely discussed with numerous quotes from interviews used as illustrations. The issues raised appear to be relevant and useful to administrators and practitioners planning to improve the quality of VET generally, and particularly in rural and remote areas.

### *Auditability*
There were two main sources of information used in writing this paper; a review of literature relating to the issues and an extensive research project conducted by the Centre for Research and Learning in Regional Australia based in the University of Tasmania. These sources are well documented in the references and are identified in the text of the paper. The quotes from interviewees included in the paper were said to come from 'the data' (assumed to refer to data in the CRLRA publications) however they could not be located in a brief search of the web-based publication of these reports.

The methodology used in obtaining the information and analysing the data used in the paper is briefly outlined, but more detail on application of the VLCs would be necessary before the research could be replicated.

## Summation of weight of evidence for factors identified
Factors relating to quality of training identified were:

- effectiveness of communication between workplace trainers and apprentices/trainees and between training providers and employers,
- the level of professional development of trainers,
- the level of communication skills of trainers,
- the extent of qualified trainers including workplace trainers, l
- levels of apprentice/trainee literacy/numeracy particularly in relation to flexible delivery, and
- the extent of transferability of skills.

This paper was published as a journal article designed to identify and focus attention on issues affecting the quality of VET delivery in the rural and remote regions of Australia. It serves this purpose quite effectively. Based on the combination of literature reviewed and the single but substantial research project drawn upon, it is likely that the paper factually represents important quality-related issues relevant to VET in rural and remote Australia.

# 17. Author and study reference

**Kodz J, Tackey ND, Pollard E, Dench S, Tyers C, & Dewson S *2000 Modern Apprenticeships and National Traineeships: Skills utilisation and progression*, Research Report 204, DfEE.**

## Aim of research

To provide an understanding of the utilisation and enhancement of skills developed on Modern Apprenticeship (MA) and National Traineeship (NTr) programmes. In addition to provide a clearer view into the further training, career development, and progression into further or higher education undertaken by young people participating in the programmes.

## Findings of research

Some of the main issues arising out of the research are summarised under four headings.

*Additionality and mode of delivery*: The programmes (MA and NTr) seem to work best where the training is relevant, supported by the employer, and develops a broader range of transferable skills to support progression. Additionality depends on the training arrangements the employer already has in place.

*Key skills*: The development of key skills works best where they are integrated with tasks relevant to the current work.

*Progression from the NTr to MA*: The gap in skill requirements of an NTr and MA in some occupational sectors makes it difficult for a seamless transition between the two.

*Career information and advice*: Career guidance would help to encourage and support progression, particularly where there is no clear pathway in the sector. The information and advice is most likely to be useful at the end or in transition points in the programmes.

## Quality of research

### *Method*

**Design**

The approach taken to answer the aims of the research was to conduct in depth case studies in six occupational sectors. These six sectors were Business Administration, Construction, Hospitality, IT, Motor and Retail.

The sectors chosen were those with approved programmes in place that had been running for some time, and with good numbers of young people who had completed their training. Interviews were conducted with a variety of stakeholders in each of the six occupational groups.

A statistical analysis was undertaken in the initial part of the research in order to provide contextual analysis for the case studies.

The authors acknowledge that the major limitation of this type of research is that the small sample means results need to be interpreted with caution.

**Sample**

Data supplied by DfEE was used to select employers, training providers and young people to be interviewed. The sample was supplemented by information from other sources such as training providers, Training and Enterprise Councils (TEC), and National Training Organisations (NTOs).

For each occupational sector, it was aimed to conduct at least 16 interviews – 8 employers, 2 training providers, 4 young people, 1 TEC and 1 NTO. In total, 49 employers, 36 young people, 12 training providers, 6 TECs and 6 NTOs were interviewed.

The sample of young people interviewed was not randomly selected. Those who were identified by employers were generally considered to be 'good' examples. Young people selected from the database participated in the programme for at least one year in the case of MAs, and had left the programme longest ago. This means that the sample of young people is not representative of all young people in the programmes.

There is little detail provided in the report however, as to the how exactly the employer interviewees were selected within each of the occupational sectors, and only minimal detail on non-response. However, a breakdown of the characteristics of the samples derived are provided.

**Data collection**
The DfEE supplied the initial statistical data. Interviews took place face to face wherever possible, however 11 of the young people interviews were conducted by telephone. One research team member conducted the fieldwork for each occupational sector. The interviews took place between October and December 1999.

## *Analysis*
Due to the nature of the sample, and the case study approach, no quantitative analysis was undertaken for this research.

The analysis was divided into separate sections which examined learning outcomes, job and career opportunities, further education and training, and influences on progression. There is also an integrative section drawing out the main issues from the previous sections.

The analysis comprises a discussion of the interview results under the main themes mentioned above. The analysis compares and contrast differing viewpoints of respondents, particularly in terms of differences between the occupational sectors covered. The analysis also discusses positives and areas of concern. There are also qualitative analyses of individual occupational sector case studies contained as appendices to the main report.

## *Findings and reporting*
The findings follow from the format of the analysis described above. The findings are credible with the parameters of the study. Wider inference should not be made from the findings however given the non-representative sample and case study approach. The authors to the study acknowledge this limitation.

The findings use some of the other research/literature in the area to support/contextualise the findings. Quotes from the interview are used to illustrate issues raised in the report.

## *Auditability*
The approach used for this research is quite well documented. However, protocols for the semi-structured interviews are not attached to the report.

## Summation of weight of evidence for factors identified

The main factors identified in relation to providing a quality training experience were:

- the relevance of the training,
- the level of support received from the employer,
- the breadth and range of transferable skills obtained, and
- the integration of training and work.

The findings are plausible within the narrow parameters of the research. However the findings cannot be generalised due to the parameters of the research. The research is also focused on Great Britain's MA and NTr system. In addition, within the research there was a variation in the findings by for example occupational sector, length of time since completion and local labour market of respondents.

# 18. Author and study reference

**Lamb S, Long, M & Malley, J 1998 *Access and equity in vocational education and training*, Research monograph no. 55, Melbourne, ACER Press.**

## Aim of research

This research examines access to vocational education and training in Australia for young people from different social and educational backgrounds. It examines equity though patterns of participation and outcomes, including participation in apprenticeships and completions for apprenticeships. It also briefly examines participation in traineeships. This review of Lamb et al will focuses on the apprenticeship and traineeship side of the research.

Apprenticeships as referred to in this report were those of three or four years duration in a trade area. Traineeships covered a wider range of occupations and were of about 1 year duration.

## Findings of research

For apprenticeships, the research found that apprenticeships continue to be male dominated, and that take-up is stronger among lower socio-economic groups. Participation is related to early school achievement with high achievers the least likely to participate. For traineeships, trends suggest they are more important to females, with stronger representation for females from lower socio-economic backgrounds, from government and Catholic schools, from English speaking families, and from rural areas.

Trends of apprenticeship data across the 1980s suggested a decline in literacy and numeracy skills of apprentices.

Completion rates for apprenticeships varied between by rural/urban (rural having higher completion rates), and level of school attainment (year 12 attainment having lower levels of completion). Completion rates also varied by type of apprenticeship, with food related trades and 'other' category trades apprenticeships having completion rates of less than 60%. Metal, electrical and automotive trades had completion rates of more than 80%.

## Quality of research

### *Method*

**Design**

This research uses longitudinal surveys of youth managed by the ACER to answer the research questions. The first survey is the used is the Australian Youth Survey (AYS) which collects information on young people's education, training and employment experience. It also uses data from a survey preceding the AYS, the Australian Longitudinal Survey (ALS). The research also uses data from the Youth in Transition Survey (YIT), which is a set of longitudinal surveys focusing on the education and labour market participation of young Australians.

**Sample**

Four samples from the ALS and AYS data were built for this research. The first derived from the ALS comprised youths that were aged 16 in 1977, 78, and 79. The second was a matching sample of 16 year olds derived from the AYS for 1986, 87 and 88. The third sample derived from the ALS is made up of people aged 16 in 1982, 83 or 84, and the fourth derived from the AYS is made up of 16 year olds from 1991, 92 and 93. These samples are designed to facilitate comparisons between groups of young people in the mid 1980's and mid 1990's. The sample is supplemented by data from the YIT, although it is not clear from the explanation provided exactly how this is done.

**Data collection**
Means of access to the data from these surveys is not discussed. In addition, the report mentions that until 1994 information for the AYS was gathered by face-to-face interview and since that time by interview.

## *Analysis*

To examine patterns of participation in apprenticeships and traineeships, the analysis examined participation rates for various categories of young people. In addition, participation in various types of apprenticeships was examined (but not for traineeships). Comparisons are made between the mid-80's and mid-90's. Descriptive statistics rather than multivariate analysis is used to make these comparisons.

To assess outcomes from apprenticeships, completion rates were calculated. Completion was defined as having entered an apprenticeship by age 19 and having completed it by age 24. Only the AYS samples were used to derive the completion rates. It is assumed the two AYS samples were pooled for this exercise.

## *Findings and reporting*

The findings follow clearly from the analysis presented, and addresses the aims of this part of the overall research project. The findings provide useful information on patterns of participation in apprenticeships and traineeships, and on completion in apprenticeships, albeit statistical information.

Given the scope of the sample, broad inferences can be made of the findings in the context of the time period in which the data was collected.

For the chapter on apprentices and trainees, little use had been made of other literature to support or compare the findings.

## *Auditability*

The report clearly describes the data sources used and the sampling methodology employed.

## Summation of weight of evidence for factors identified

Characteristics of apprenticeships/traineeships related to completion were rural/urban (rural higher completion rates), and school attainment (year 12 lower attainment). Types of apprenticeships and traineeships with lower completion were food trades and 'other' category trades. Metal, electrical and automotive trades had higher completion rates.

The findings need to be taken in the context of the time period in which they were collected (pre New Apprenticeships), and that the main aim of the study was to examine access and equity issues. However, the study is well designed which adds weight to the findings of the study.

# 19. Author and study reference

**Market Solutions 2003 *2002 surveys of New Apprentice and employer satisfaction with New Apprenticeship Centres*, DEST, Canberra.**

## Aim of research

To obtain measures of New Apprentice and employer satisfaction with the performance of New Apprenticeship Centres in relation to Key Performance Indicators identified in the New Apprenticeship Support Services contract for 1999-2003. An 80% satisfaction level is required by New Apprentices and employers for the provision of a streamlined service.

## Findings of research

Overall satisfaction at the national level was 89.8% among New Apprentices, and 89.4% for employers.

The survey found that higher levels of satisfaction could be created by New Apprenticeships Centres being more proactive in ongoing contacts, in effectively following up queries, and in providing clearer communication. This applied to both apprentices and trainees, and employers. Employers have a greater demand for ongoing contact with NACs after commencement of training arrangements than New Apprentices.

## Quality of research

### *Method*

**Design**

Two satisfaction surveys were developed in order to answer the research aims. One survey was developed for New Apprentices, and one for employers. Both surveys included a set of core questions dealing with perceptions of quality of service and whether NACs achieved intended outcomes, and targeted questions. In the case of the New Apprentice survey, questions were asked on the Living Away from Home Allowance, and in the case of the employer survey, questions were asked on employer incentives.

The 2001 New Apprentice and Employer Satisfaction questionnaire was used as a basis for developing the questionnaires. A workshop was convened between the consultants undertaking this review and DEST to review the questionnaires. Pilot testing of the questionnaires also took place.

The research design is clearly explained and meets the aim of the review, although it relies on a single method to obtain answers.

**Sample**

The sampling methodology is clearly explained overall. A quota of 80 employer and 80 New Apprentice interviews were set for each New Apprentice contract. 64 of these contracts were identified. However it is not clear from the report whether this is a sample of the contracts, and if so, how it was derived. In total, 5,282 (35% of the sample listing) New Apprentices and 5,152 (36% of the sample listing) employers completed the surveys.

**Data collection**

Survey data was collected using Computer Assisted Telephone Interviewing (CATI).

### *Analysis*

The analysis provides a breakdown of the data from various perspectives for both the employer survey, and the New Apprentice survey. The analysis relies to a large extent on percentage breakdowns of the survey data by various categories including reasons for satisfaction, reasons for dissatisfaction, satisfaction with customer service and information provision, and satisfaction by region.

Weighting of results was used to account for over or under representation of particular New Apprenticeships Centres.

The analysis also uses 'strategic windows' for customer service and information provision. These windows identify aspects that have the highest contribution or strongest relationship with overall satisfaction. Correlation analysis was used to identify those aspects of customer service and information provision that have the overall greatest contribution to satisfaction.

The use of strategic windows is helpful in identifying areas of priority for action to either maintain or improve current service levels.

Tests of difference (not specified which) were used to test for differences between the satisfaction of New Apprentices and employers by region.

### *Findings and reporting*

Given the rigour of the methodology, and the clarity of the analysis, the findings are credible. The findings follow clearly from the analysis.

The findings are not put in the context of the broader literature in the area, so it is difficult to determine whether the results are consistent with other research in the area. Nevertheless, given the large sample size and that it was a national project undertaken in 2002, could have some confidence in generalising the results.

### *Auditability*

The research process has been well documented. An appendix to the report provides a copy of the survey instruments used.

## Summation of weight of evidence for factors identified

Factors identified to improve the service of New Apprenticeship Centres to both apprentices and trainees, and employers were:

- being more proactive in ongoing contacts,
- follow-up of queries, and
- clearer communication.

A level of confidence can be put in the findings given that it was a fairly large sample national study. A possible drawback is that it relies purely on one method – surveys.

# 20. Author and study reference

**Misko J 1999 *On-the-job traineeships in Western Australia,* NCVER, Adelaide (commercial project).**

## Aim of research

To investigate training and assessment practices in on-the-job traineeships with a particular focus on business office administration and small business traineeships.

## Findings of research

Reasons given by employers for participating in the on-the-job traineeship were that they needed a trainee on site at all times, and that it gave employers more opportunity to have a say in the program.

About three-quarters of business office administration trainees enjoyed the traineeship, although less than 60% of small business trainees did so. RTOs thought that most workplaces with which they were involved provided appropriate training.

Employers thought the on-the-job traineeships were value for money and provided a good preparation for trainees. The biggest advantage for the employer was customising training to the needs of the organisation, to gain incentives, and to have better trained and skilled employees. Most RTOs also thought that the traineeship was good value for money and helped prepare trainees for the future. RTOs thought that the greatest benefit for trainees was that the traineeships were on-site, work specific, and flexible.

Some concerns with the traineeship were raised by trainees, employers and RTOs. Concerns raised by trainees were lack of time to do the traineeship, inadequate or inappropriate training, and non-supportive employers or workplace supervisors. Employer concerns were difficulties in: allocating time to do the traineeship, obtaining accurate information, and finding time to help trainees. The most frequently cited disadvantages by employers were lack of time and effort for administration, delivery and assessment. Concerns raised by RTOs were occasionally having difficulties in getting employers to allocate time to develop the program or for RTO meetings. Other concerns related to lack of employer time and skills for training, lack of access to other trainees and low trainee wages.

Employers' suggestions for improvement included better provision of information, reduction of red tape, improving quality assurance, and improving quality of learning materials. RTOs' suggestions for improvement were improving learning materials, increased commitment from employers and trainees, broadening the skill exposure of trainees, increased provision of funding, and mandatory validation of assessments by RTOs.

## Quality of research

### *Method*

**Design**

The design for this study involved the development of survey questionnaires for three major stakeholders in the system in order to address the aim of the research. The surveys asked questions about involvement in on-the-job traineeships, training and assessment practices, satisfaction with the program, perceived benefits and concerns, and suggestions for improvement.

**Sample**

*Trainee survey*: Census data was supplied from the apprenticeship branch in WA Department of Training. In total 2,567 on-the-job trainees in business office administration and small business were identified. Surveys were sent to all trainees. In total 491 surveys were returned, 374 in business office administration and 116 in small business, representing a response rate of about 20%. Although this is a modest response

rate, a comparison of the demographics of the sample and the population showed that they are broadly similar.

*Employer survey*: Sixty-two employers of current and past trainees were surveyed. However, no detail on how the employers were sampled is provided.

*RTO survey*: Representatives from 14 RTOs in Western Australia responded. However, no detail on how the RTOs were sampled is provided.

**Data collection**
Data for trainees was collected by mail out survey, and phone interview where trainees wished to discuss their problems. Data for the employer survey was gathered by telephone interview. Data for the RTO survey was gathered by mail out survey.

### *Analysis*
The analysis of the survey results consisted mainly of frequency counts and percentages. The analysis was divided up according to the three surveys administered. The analysis for the trainee survey included a breakdown by traineeship type.

There is no overall integrating analysis and multivariate statistics are not used.

### *Findings and reporting*
The findings follow from the data tables and are presented discretely for the three surveys used. The findings are credible within the limited scope of the study, and provide some illumination on issues concerning on-the-job traineeships. If making wider inferences from these findings, note needs to be taken of the time period of the surveys, that it is particular to Western Australia, and focuses on only two traineeship types.

There is no integration of the overall findings, nor is it put in the context of other literature in the area.

### *Auditability*
The method for the study is quite well documented apart from lack of detail for sampling of employers and RTOs. Copies of questionnaire are provided in an appendices.

## Summation of weight of evidence for factors identified
A range of issues were raised by this report. Some of the main factors of concern relating to the quality of the traineeships raised by employers, trainees and RTOs were:

- trainees lack of time to do the traineeship;
- inadequate or inappropriate training;
- lack of support from employers and workplace supervisors;
- lack of employer time to deal with all aspects of traineeship;
- inadequate provision of accurate information to assist employers;
- level of employer skills relating to training;
- level of commitment of employers and trainees;
- trainees unable to access to other trainees;
- low wages; and
- poor quality of learning materials.

It must be noted that these factors were raised only by some employers, trainees and RTOs, and by no means a majority.

Although the response rate for the trainee survey was modest, the demographics are broadly representative of the population of office administration and small business on-the-job traineeships, giving a level of confidence in the results. As the surveys took place in 1999, were particular to Western Australia, and concentrated on two traineeship types, the results are not generalisable to all on-the-job traineeships.

# 21. Author and study reference

**NCVER 2001 *Group training apprenticeships and traineeships in Australia,* NCVER, Adelaide.**

## Aim of research

To examine the development of group training from its beginnings to the present day. The research also examines patterns of group training in terms of occupational mix, structure and type of training, who participates and what is gained from it at the end.

## Findings of research

Main findings are that:

- most group training apprentices and trainees were concentrated in traditional apprentice training with length of contract of three years or more,
- 90% of host companies serviced by the GTCs are small or medium-sized businesses,
- completions for GTC apprentices and trainees have grown at a higher rate than apprentices and trainees overall for 1995-2000,
- attrition for group training apprentices and trainees was similar for the period 1995-2000 to apprentices and trainees overall,
- job outcomes were very good and comparable to those for apprenticeships and traineeships overall for 1998/99, and
- group training companies had the highest proportion of teenage apprentices and trainees of all employer types and half-the number of school-based apprentices and trainees.

## Quality of research

### *Method*

**Design**

The design is based entirely on a statistical analysis of data on group training apprentices and trainee data. Although it examines data on completions and employment outcomes, its scope is limited, as it does not examine qualitative issues such as satisfaction with GTCs.

**Sample**

Mainly uses population data on group training apprentices and trainees from NCVER's apprenticeship and traineeship collection. However, it also uses population data from NCVER's provider collection, and data from the post-program monitoring system supplied by DETYA and DEWR for employment outcome data. It is not clear from the report whether this data is sample or population data.

**Data collection**

As above, most of the data was collected from NCVER's apprenticeship and traineeship collection.

### *Analysis*

The analysis is divided into different sections in the report. The first set of analysis deals with the structure of group training apprentices and apprentices, for example, by employer type, occupational basis and type of qualification undertaken. The second set of analysis examines characteristics of group training apprentices and trainees such as by age, gender, educational background, indigenous status and whether they had a disability or not.

For these two sets of analysis apprentice and trainee in training data are used. Numbers of group training apprentices and trainees to all apprentices over time are used as a basis of comparison.

The next set of analysis examines completions and outcomes from group training apprenticeships and traineeships by various categories such as by qualification, occupation, and characteristics of apprentice/trainee. Limitations in the administrative data are discussed. In particular, there are lags in reporting meaning that a certain portion of apprentices/trainees who reach their expected completion data are not recorded as cancelled, withdrawn or completed.

The final set of analysis examines off-the-job training undertaken by group training apprentices and trainees. This analysis involved matching data across two national collections, the apprentice and trainee collection, and the provider collection. One of the limitations of this approach is that it captures about two thirds of apprentices and trainees, so it is difficult to report absolute training measures.

Multivariate analysis is not used, as the main purpose of the analysis was to describe trends in-group training apprentices and trainees.

### *Findings and reporting*

The findings follow from the analysis. The findings are credible as they are based on credible data sources, within the limitations acknowledged. They also present a national picture of group training apprentices and trainees.

Other literature in the area is used to contextualise the data, or to present points of comparison.

One minor shortfall in the findings is that there is no real integration of the different types of analyses undertaken. They are left more as discrete components.

### *Auditability*

The use of data sources is well explained.

## Summation of weight of evidence for factors identified

Key issues relevant to quality of apprenticeships and traineeships identified were that:

- completions of group training apprentices and trainees had grown at a faster rate over the period 1995-2000 than that for apprentices and trainees overall;
- attrition for group training apprentices and trainees was similar for the period 1995-2000 to apprentices and trainees overall; and
- employment outcomes for group training apprentices and trainees are very good and similar to apprentices and trainees overall for the period 1998/99.

The use of national data lends weight to these findings within the limitations acknowledged in the report.

# 22. Author and study reference

**NSW Department of Education and Training 2003 *Strategic evaluation of traineeship training in NSW abattoirs*, NSW DET.**

## Aim of research

The evaluation was undertaken with a view to exploring issues with traineeship training in the meat processing industry in NSW abattoirs. These traineeships were at the certificate II and III level. There were a number of sub-objectives of the review including examining the quality of training delivered by RTOs, assessing overall quality of training delivered to trainees, and assessing the relevance of training in meeting skill needs.

## Findings of research

The evaluation found that overall traineeship training was satisfactory in NSW abattoirs. Trainees found that the training provided them with the skills required to do the job. However, most existing workers surveyed believed that they knew most of what they were being taught, and were happy to receive a certificate recognising their skills. There was also found to be a correlation between increased traineeship training and workplace safety.

The compliance audit of RTOs found non-compliance with a range of issues including record keeping (28% of all non-compliances), a variety of assessment issues (25%), and aspects of client services (21%). The audit found that 43% of RTOs had trainers and assessors not qualified to train and assess the qualification. There was also found to be lack of integration between training package requirements and abattoir standard operating procedures. This could adversely impact on trainee's assessment plans.

Based on the findings the evaluation developed several recommendations focusing on improved record keeping, auditing of trainer's qualifications, explanation of traineeships and responsibilities, and refining of administrative processes.

## Quality of research

### *Method*

**Design**

To meet the objectives, the evaluation was carried out in several phases. These phases were:

- Initial research to establish a profile of traineeship training in NSW abattoirs;
- Sample selection of trainees to participate in surveys and audits;
- A survey of trainees undertaking the Certificate II or III in meat processing. The survey was developed to gain diagnostic information on trainees and was trailed with DET internal trainees. No other information is provided on how the survey questions were developed;
- A survey of employers to gather preliminary information prior to audits. It is not clear how this survey was developed or whether it is related to the trainee survey. Further information may be available in other summary reports that were produced;
- Compliance audits of selected RTOs and employers. The audits also included interviews with employers, trainees, and New Apprenticeship Centres.

There is sufficient breadth in the design of the evaluation to address the objectives of the evaluation.

**Sample**

The report indicates that 224 trainees (or about 11% of the population of trainees in this area were surveyed). In addition, a selection of employers, RTOs and New Apprenticeship Centres were interviewed

as part of the audit. However, this main report does not contain details on how the sampling was undertaken.

**Data collection**
Telephone interviews were used to gather data for the surveys. Data on traineeship trends was gathered from IVETS, which is the NSW Department of Education and Training's database, and NCVER's new apprenticeship collection. The audits were conducted by site visits.

### *Analysis*
The analysis included trend data on traineeships by traineeship characteristics (e.g. gender, age) and traineeship type (new entrant/existing worker, full-time/part-time).

Analysis of the survey results is by way of descriptive statistics (numbers, percentages). Similarly, the analysis of the audit results is by way of descriptive statistics and summaries of observations of interviews with employers, trainees, and New Apprenticeship Centres.

The analysis includes an internal evaluation of the audit process used. This was by way of an evaluation questionnaire that was sent to audit team members asking for comments and suggestions on the processes used.

Some of the analysis for this evaluation is contained in separate reports to this main report.

### *Findings and reporting*
Most of the findings are credible and follow from the analysis presented. In a couple of instances, mainly setting the scene to the meat industry in NSW, there is no source reference provided for information presented. These may however be in the auxiliary reports.

The findings are clearly linked to the aim of the evaluation. The findings of the different components of the study, (the survey and the audit) have been used to develop recommendations for improvement for the various players in the system – employers, RTOs, NSW DET.

Results of employer, trainee, and New Apprenticeship Centre surveys are used to support the findings of the compliance audit.

Although the findings are relevant to the meat processing industry in NSW, caution would need to be taken in making any broader inferences from the findings.

### *Auditability*
There is a reasonable discussion of the approach taken, however sampling detail is not provided in this main report. They may however be contained in auxiliary reports.

## Summation of weight of evidence for factors identified
Factors identified that could impair the quality of the traineeships included existing workers not learning new skills, unqualified assessors and other assessment issues by RTOs, record keeping by RTOs, and lack of integration of the training package requirements with operating procedures at work.

Given the use of multiple approaches in this evaluation, there is a good basis for the conclusions made. They do however need to be taken in the context of the meat processing industry in NSW, and would not necessarily be generalisable to other industry sectors.

# 23. Author and study reference

**Ray D, Beswick W, Lawson C, O'Brien C & Madigan S 2000 *Attrition in apprenticeships: An analysis of apprentices commencing between July 1994 and June 1996*, REB report 1/00, Commonwealth of Australia.**

## Aim of research

A technical study looking at deriving an accurate method of measuring attrition among apprenticeships for commencements in 1994/5 and 1995/6 (prior to the introduction of New Apprenticeships). These apprenticeships were normally of three or four years duration in a trades related area. The study also examined the following issues:

- The level of attrition of apprentices prior to the introduction of the New Apprenticeship scheme;
- The extent to which attrition in apprenticeships is a problem; and
- Some of the influences on attrition.

## Findings of research

Most attrition occurs early in the apprenticeship. After one year the attrition was between 13% and 16% for the 1994/5 and 1995/6, after two years 20% for the 1994/5 cohort, and about 22% after two and a half years. Projections indicate attrition of between 22% and 30% four years after the commencement of the two cohorts under investigation.

Factors related to an increased probability of attrition for apprentices were: not having completed year 12; being female; higher age group; employed with a Group Training Company; and being employed in Food and Miscellaneous occupations

## Quality of research

### *Method*

**Design**

The research develops a formula to estimate a cumulative attrition rate after four years of training. The formula is useful in that it accounts for apprentices who leave and subsequently recommence their apprenticeship within two years.

- There are some limitations of the study that are discussed by the authors:
- Can only examine commencements from 1994;
- Because of difficulties in calculating duration of training for those apprentices that cancel and recommence, for this research the duration of training includes the cancellation period;
- Because of time lags in notifying cancellations and withdrawals, the research can only estimate actual attrition rates to September 1997. However, projections within confidence limits can be made using rates of change data.
- Limitations of the NCVER database.

**Sample**

The research utilises census data from the AVETMISS apprenticeship statistics collection, and is therefore not prone to the vagaries of sampling. This collection contains apprentice unit record data from 1994.

**Data collection**

As above, data has been collected from the AVETMISS apprentice statistics collected and administered by the NCVER.

The scope of the data collection is two annual intakes of apprentices: those who commenced in 1994/5 and 1995/6.

### *Analysis*
Attrition rates were calculated using the formula mentioned in the methodology. Discussion and technical notes are provided as to how the various rates were arrived at.

In addition, descriptive statistics and multivariate analysis (logistic regression) of the pooled apprenticeship data were used to examine the effect of various influences (demographic and institutional factors) on attrition. Detailed analysis is presented in an appendix. As a minor point, there is no discussion of data analysis tools used.

### *Findings and reporting*
Given the rigour of the methodology, the findings presented are credible, even though the research uses a mono-method approach. The findings are clearly linked to the aims of the study.

The discussion of findings is thorough, presents comparisons where relevant, and discusses the relative importance of various demographic and institutional factors on attrition rates. The commentary is clearly linked to data presented. Discussion of limitations of findings/and further work that can be undertaken is also provided.
Executive summary and conclusion highlights key points/messages.

### *Auditability*
There is a thorough account of method given, and a discussion of the usefulness and limitations of the data set used. Apart from not knowing exactly which data analysis tools were used (eg SAS), the level of information given should make the study replicable.

## Summation of weight of evidence for factors identified
Characteristics of apprenticeships that can affect quality of outcomes in terms of related to an increased probability of attrition for apprentices were: not having completed year 12; being female; higher age group; employed with a Group Training Company; and being employed in Food and Miscellaneous occupations.

The research uses a defensible method to arrive at an attrition rate for apprentices that commenced between July 1994 and June 1996. The factors derived also defensible.

# 24. Author and study reference

**Roy Morgan Research 1998 *Benchmarking employer satisfaction with training for apprentices and trainees,* OTTE, Melbourne**

## Aim of research

The aim of this study was to undertake a benchmark study of employer satisfaction with training services (providers) for apprentices and trainees in Victoria. The benchmark data will be used to assess the effects of New Apprenticeship and user choice which were to be introduced in 1998.

## Findings of research

Employers were broadly satisfied with the service provided by training providers with three-quarters of employers expressing a level of satisfaction of 6 out of 10 or more. In addition, just over three-quarters of employers thought that off-the-job training was very or extremely important.

At the institute level, overall satisfaction ranged from 66% to 83% (rating of 6 out of 10 or more).

Aspects of service delivery rated most important by employers were teacher ability and experience, level of work skills gained through formal training, and cost effectiveness of training. Aspects of service employers would like to see most improvement in were level of work skills gained through formal training, teacher ability and experience, and relevance of course content.

In addition, there was also found to be limited communication between employers and institutes on course development, and limited awareness among employers regarding the user choice policy. An additional finding from the indepth interviews was that some apprentices/trainees were felt to be doing an inappropriate course.

## Quality of research

### *Method*

**Design**
A survey instrument was designed to answer the aims of the study. In addition to more specific questions on employer experience with apprentices and trainees who were training at the time of the survey, the survey also uses equivalent questions to those used in the 1997 National Employer Satisfaction survey to enable comparisons between the two surveys to be made.

**Sample**
The targets for the sample were Human Resource Managers in large organisations and General Managers or equivalent in smaller organisations. Employers were randomly chosen from the OTTE database which contains a register of employers of apprentices and trainees in training. However, employers who had participated in the 1997 national survey were excluded, as were employers who trained apprentices and trainees only internally.

A quota of 80 interviews was set for TAFE colleges that had 1,000 or more apprentices and trainees. Interviews were also held with other TAFE colleges and private providers, however no quota was set. The sample was not stratified by employer size or industry as the focus was to get employer views on training providers. In total, 1,903 interviews took place. This represents a large sample of employers.

A sample of 15 employers were also interviewed in depth for this study. These employers were not involved in the larger survey and were randomly chosen from the OTTE database according to certain stratification variables.

**Data collection**
For the survey, employers were interviewed by telephone (using CATI) between 27 November and 22 December 1997. For the in-depth interviews, employers were interviewed face to face, and the interviews were tape recorded.

### *Analysis*
The analysis consists mainly of descriptive statistics for the survey results (means and percentages), by various categories. This includes overall satisfaction as well as satisfaction by institute level for various aspects of service delivery by training providers. Analysis by way of descriptive statistics is also provided on various aspects of employers experience and knowledge of user choice, and satisfaction by Group Training Providers.

The analysis for the in-depth interviews is reported separately and consists of a description of the main themes arising out of these interviews. They are there to add an extra dimension to the overall review.

The analysis also describes the characteristics of employers in the sample, and an analysis of sampling reliability.

### *Findings and reporting*
The findings flow from the analysis presented and are plausible. The sampling used for the survey also add confidence in the overall findings. The study acknowledges that caution must be taken in interpretation of some findings, for example for institutes for which a low quota was achieved. The report also stresses that the in-depth interview findings are there to add an extra dimension to the study, and that caution needs to be taken in making any wider inference from these interviews.

Findings from the survey and interview have been used to point out areas of possible improvement in service delivery for training providers.

There is no review of literature in which to contextualise or corroborate the findings.

### *Auditability*
The sampling methodology is clearly explained in an appendix to the report. A copy of the survey instrument is also attached. However, no interview protocol is provided.

## Summation of weight of evidence for factors identified
Factors identified that could impact on training included:

- the qualifications and experience of the teacher,
- the relevance of course content,
- the appropriateness of the course for apprentices and trainees,
- the level of awareness of user choice policy by employers, and
- the level of communication between employer and institute on course development.

The findings for this survey are plausible given the sampling methodology employed. However, the study is specific to Victoria and is predates the New Apprenticeship system, and is purely from the employer's perspective.

# 25. Author and study reference

**Sadler R 2003 *Effectiveness of time requirements in assuring a quality learning experience for apprentices and trainees*, OTTE, Melbourne.**

## Aim of research

The aim of the research was to investigate the educational merit of Victoria's 15-hour a week mandatory minimum requirement for part-time apprenticeships and traineeships. In particular, the research examined quality and learning issues associated with a change to the mandatory requirement. It also investigated the implementation of recommendation 15 of the Schofield review relating to funded apprenticeships and traineeships requiring an off-the-job component.

## Findings of research

Stakeholders generally found that the 15-hour mandatory requirement should not be reduced, as it would compromise the integrity of the program and the quality of the qualification. The only cohort of stakeholders that thought there should be a reduction in the mandatory 15-hour requirement was the learners themselves. However, some concern was raised about possible discrimination to potential trainees that currently work less that 15 hours per week.

In terms of Schofield's recommendation 15, off-the-job training was highly regarded in terms of supporting teaching of theory, teaching basic skills before putting them into practice, teaching skills not taught at the workplace, and providing a non-pressurised work environment.

## Quality of research

### *Method*

**Design**

The research takes an essentially qualitative approach through the use of focus groups, interviews and case studies. However, a survey questionnaire was also utilised to examine themes. This was filled out by the researcher during the course of the interviews. Employers, training providers and apprentices/trainees were used as respondents in order to gain a cross-sectional view. Protocols were developed for the structured interviews. However these are not attached to the research report.

The rationale given for this approach is that the multitude of interventions in the system makes it impractical to try and isolate factors using quantitative methods. Evidence gathered is therefore more based on an accumulation of insights rather than through statistical significance.

**Sample**

Research questions were received from various stakeholders in the Victorian system including employer groups, group training companies, the Australian Education Union, industry advisory boards, chamber of commerce and industry, Victorian TAFE Association and the Victorian TAFE Students and Apprentices Network. Responses were received from three Industry Training Boards, two Industry Advisory Bodies and three Group Training Companies.

Interviews were conducted with 32 staff engaged by 20 employers, 60 apprentices and trainees (mix of full and part-time), and six training providers. Focus groups were also conducted.

Although the report mentions that 'purposeful sampling' was undertaken, and that interviews were allocated between respondent types, there is no specific description as to how the final sample was arrived at, or any discussion of non-respondents.

**Data collection**
Letters inviting responses were sent out to the various stakeholders in the system mentioned above. There does not appear to have been any follow-up procedure. Interviews were administered in person (usually) and on site.

### *Analysis*
The analysis consisted mainly on description of survey and interview results. There is some integration of major themes in the analysis. Main trends in the results were highlighted. There was also some discussion of major viewpoints.

The conclusion that Schofield's recommendation 15 on the benefits of off-the-job training is supported by business is inferred from the data rather than directly asked. However, the main aim of this part of the research was to explore implementation methods for this recommendation, and the analysis uses data on the benefits of off-the-job training to do this.

### *Findings and reporting*
The findings are credible overall, with data tables used to support conclusions made. They are also corroborated with evidence from other research. For example, comparison is made to some similar research done Harris and Simons in 1999 on the usefulness of on- and off-the-job training. The results of the current research are corroborated by Harris and Simons' research.

However, some reservations must be made as to how far the results demonstrate the views of the population. For instance, the conclusion that the 15-hour minimum requirement for part time apprentices and trainees should be maintained is based on agreement by 39 respondents out of a total sample of 60.

Although key issues are highlighted in the executive summary, highlighting key messages throughout the report would have helped in the reading of the report.

### *Auditability*
The research process is reasonably well documented in parts, however (a) it is not clear how the final sample for the research was derived, and (b) the interview schedule and focus group protocols are not attached to the report document meaning replicability of this research would be difficult.

## Summation of weight of evidence for factors identified
The main factors identified in terms of quality were that there should be a mandatory 15-hour per week minimum requirement for part-time apprenticeships and traineeships, and the value of off-the-job training in complementing on-the-job training.

The fairly small sample (60 in total), and lack of information on sample selection makes it difficult to generalise this research to the broader apprenticeship and traineeship system. The research is also focused on issues pertaining to Victoria's apprenticeship and traineeship system, rather than a national picture.

# 26. Author and study reference

**Schofield K 1999 *A risky business: Review of the quality of Tasmania's traineeship system,* Available at: www.ovet.tas.gov.au/pub_res/oldtemplate/review/report/execsum.htm**

## Aim of research

The terms of reference for this review were to provide an overview of current arrangements pertaining to quality of traineeships, to investigate the effectiveness of current arrangements in assuring quality of training outcomes for traineeships, identify issues relating to the quality of training and how these are currently being addressed, and develop an action plan to ensure quality of training for traineeships. The study refers to the traineeship system that predates New Apprenticeships. These traineeships were usually of about one year in length.

## Findings of research

Quality issues were discussed under five main headings being training and assessment for quality learning, management and administration to ensure quality, managing the market for quality outcomes, regulating for quality training, and policy to drive quality. Various concerns were raised under each of these headings including:

- adequacy of assessment of traineeships,
- concern with fully on-the-job traineeships particularly in relation to trainees time to complete self-paced learning packages,
- quality management weaknesses,
- low completion rates (especially for small business, food preparation and service, and retail operation traineeships),
- the quality of information and communication between market players,
- the price paid for traineeship training,
- the effect of incentives on market behaviour,
- doubts about the regulatory regime,
- lack of clarity in the policy framework, and
- concerns with New Apprenticeship Centres in relation to general level of information provision, being unduly influenced by incentive arrangements, and suitability of placement due to user choice issue.

A fundamental weakness of the system in Tasmania was found to be the absence of an effective and credible system of risk management system. Three areas in particular were identified: commercial and legal compliance, training and assessment practices, and policy, planning and information systems.

## Quality of research

### *Method*

**Design**

There is no clear methodological design discussed in the report. The report mentions that issues have been identified through a range of sources including submissions, consultations, interviews, data analysis and interpretation, and desk research. There is however little discussion how these sources were designed to meet the aims of the research.

The report does acknowledge problems with the quality, quantity, and scope of relevant data available to the review.

**Sample**
No detail on sampling is given in the report. The appendices indicate that 63 people attended stakeholder consultation sessions, 7 individual interviews were conducted, and 21 written submissions were received.

Extensive use was made in the report of a surveys conducted by CRLRA in May 1999. Four surveys were conducted: a New Apprentice Survey, and RTO survey, and employer survey, and a Group Training Company and New Apprenticeship Centre survey. However, no information on sampling is given, other than to say that caution must be taken as number of responses are small.

**Data collection**
Data collection methods are not discussed in the report.

### *Analysis*
The analysis in the report is mainly a description of the results of the data collected. The analysis makes use of a variety of secondary data as well as primary data by way of consultations, submissions, and interviews.

The second part of the report uses a risk management framework to draw together evidence gathered to identify likelihood and consequences of risk to various aspects of Tasmania's traineeship system.

The analysis is also used to develop recommendations for improvement to the system.

### *Findings and reporting*
The use of disparate data sources lends some level of credibility to the findings of the review. However, the review itself acknowledges significant limitations with the data obtained.

Given problems with the data collected, and the review's focus on Tasmania's traineeship system, wider inference of the findings is problematic.

### *Auditability*
There is little documentation on the design of the review provided.

## Summation of weight of evidence for factors identified
Factors identified in relation to quality of training included:

- concern with the fully on-the-job mode, particularly trainees time to complete self-paced learning packages;
- low completion rates, especially for small business, food preparation and service, and retail operation traineeships;
- adequacy of assessment,
- issues with quality management and the regulatory and policy framework,
- quality of information and communication between players, and
- unintended behaviour by employers in terms of use of incentives, and
- concerns with New Apprenticeship Centres in relation to general level of information provision, being unduly influenced by incentive arrangements, and suitability of placement due to user choice issue.

Self-acknowledged weaknesses with the data gathered for this review mean that the findings need to be treated with caution, particularly in terms of trying to make any generalisations. The findings are of interest however in light of the results of other reviews on the quality of apprenticeships and traineeships. Findings also need to be considered in that they were pre New Apprenticeships and focused on Tasmania.

# 27. Author and study reference

**Schofield K 1999a *Report of the independent investigation into the quality of training in Queensland's traineeship system*, Available at: www.training.qld.gov.au/reports/schofield.htm**

## Aim of research

The terms of reference for this review were to undertake an investigation into the quality and effectiveness of the traineeship program in Queensland and the extent to which user choice arrangements and government employer subsidies provide value for money in terms of quality of outcomes and completion rates. Special reference was to be given to those traineeships undertaken fully on-the-job. Recommendations were to be provided to government on measures which might improve the quality and effectiveness of the training.

The study refers to the traineeship system that predates New Apprenticeships. These traineeships were usually of about one year in length.

## Findings of research

The Queensland training system has some strengths and the traineeship experience is positive for many employers and trainees. However, the review found that the traineeship system was only partly effective (e.g. about 20% of trainees reported that the traineeship merely reinforces existing skills), is not fit for its purpose (e.g. there are doubts as to whether skills are properly assessed or qualifications validly issued for fully on-the-job training), is inefficient (e.g. low completion rates and high administrative expenses) and the accountability framework is not as strong as it could be. New Apprenticeship Centres have minimal accountability for ensuring quality. This was particularly in relation to conflicts of interest, less than adequate service levels, and a variable standard of relationship with DETIR.

The report found the main causes of poor quality to be: changes to the wider system not being well managed by DETIR, policy objectives being blurred (i.e. traineeships initial training for young people, an employment program, or training and skills recognition for existing workers?), needs of learners having been neglected, particularly in the fully-on-the-job mode, inadequate quality assurance systems, the roles and responsibilities of employers, RTOs, and industry being poorly defined, flaws in the user choice model, financial incentives distorting the behaviour of employers and RTOs, and dysfunctional departmental administrative systems.

## Quality of research

### *Method*

**Design**

The review used a range of methods in which to build a picture of the traineeship system in Queensland. These included:

- the establishment of a reference group to provide input into key issues;
- review of relevant information including a review of internal and external audits, other review and reports (such as DETIR's 1999 evaluation of the impact of Vet reforms on Queensland apprenticeships and traineeships, Larry Smith's report on the impact of user choice, review of New Apprenticeship Centres, and model for an effective apprenticeship and traineeship administration system project), annual reports, and financial and statistical data;
- a commissioned survey of employers and trainees representative of organisations that used on-the-job traineeships;
- stakeholder forums to provide an opportunity for stakeholders to put forward their opinions and concerns;

- stakeholder interviews, and
- written submissions.

This multi-method approach adds depth to the overall research approach.

In addition, quality was to be assessed according to four specific criteria being effectiveness, fitness for purpose, efficiency and accountability. Various questions were asked about quality under each of these criteria.

**Sample**
*Commissioned survey of employers and trainees:* Two surveys were conducted. One for employers and one for trainees. The employers were selected at random from the records of the DELTA '98 database. Three times as many employers as were required were selected to account for non-response. Trainees surveyed were from the same workplace as the employers surveyed. In total, 402 employer surveys, and 455 trainee surveys were completed. 222 nil responses were received. An analysis of these indicated that main reasons for non-response were that the employer reported that they no longer employed trainees, or were too busy to participate.

*Stakeholder forums:* Five consultation forums were held. All New Apprenticeship Centres, ITABs and TAFE Institutes were invited to attend the forums. A range of private RTOs were invited (including those not involved with user-choice arrangements), based on advice from the Australian Council of Private Educators and Trainers. In total, there were attendees from 19 ITABs, 20 representatives from private RTOs, 12 TAFE respresentatives, 12 New Apprenticeship Centres, and the Group Training Australia Management Committee.

*Submissions:* Received from a call put in *The Courier Mail* and major Queensland regional papers. a total of 45 submissions from ITABs, RTOs, Group Training Schemes, and others were received.

*Stakeholder interviews*: Little detail on the sample for these is provided except to say that interviews were held with several interested stakeholders and departmental officers. These stakeholders are listed in an attachment to the report.

**Data collection**
*Commissioned survey of employers and trainees:* Conducted by interview with DETIR field officers.

*Stakeholder forums*: Done by way of stakeholders attending a consultation forum.

*Stakeholder interviews*: Conducted face-to-face.

## *Analysis*
The analysis is mainly descriptive and is grouped under the various parts of evidence collected namely the stakeholder consultations, surveys, interviews and other pertinent information. Attachments to the main report describe the results in more detail.

The analysis discusses both strengths and weaknesses of the traineeship system in Queensland. However, because of the nature of the review, more emphasis is placed on areas of concern.
The analysis is integrated in the findings chapter that brings together the evidence obtained under the four criteria of quality described above.

Although the analysis is descriptive, the integration of the different sources of data adds strength to the overall analysis.

### *Findings and reporting*

The findings are credible and flow from the analysis presented. They are clearly presented in a chapter devoted to findings of the research, and under grouped under the criteria for measuring the quality of the traineeship system in Queensland (effectiveness, fitness for purpose, efficiency and accountability).

Support for the findings is stronger where several data sources and results of other pertinent studies are used to corroborate the findings. In a couple of parts, for example the discussion of user-choice arrangements, the findings are not based on primary data obtained for the review, but relies on secondary sources such as audit reports and the findings of other studies (e.g. Larry Smith's evaluation of user choice arrangements).

The findings are consolidated in a final section of the report which are used as a basis for developing recommendations to improve the quality of the traineeship system.

Although this study is focused on the traineeship system in Queensland in 1999, the multiple sources of evidence collected allows some scope for wider application of the overall results.

### *Auditability*

The methodology for this review has been documented quite well, apart from one or two instances. For example, no interview protocol is provided for the individual stakeholder interviews. However, copies of the survey instruments for employers and trainees are provided in one of the attachments.

## Summation of weight of evidence for factors identified

Factors adversely affecting quality identified in this review include:

- assessment issues and needs of learners being neglected in the fully on-the-job mode,
- low completion rates,
- high administrative costs,
- accountability of New Apprenticeship Centres, particularly in relation to conflicts of interest and service levels;
- inadequate quality assurance systems,
- poorly defined roles and responsibilities for employers and RTOs,
- issues with the user choice policy,
- unintended use of incentives by employers and RTOs, and
- dysfunctional departmental administrative systems.

The use of multiple data sources provides weight to the findings of this review. However, the findings need to be taken on context of time (pre New Apprenticeships) and that it was focused on Queensland traineeships.

# 28. Author and study reference

**Schofield, K 2000 *Report of the independent review of the quality of training in Victoria's apprenticeship and traineeship system*, Volume 1, DEST, Canberra.**

## Aim of research

The terms of reference for this report were to investigate the quality and effectiveness of the apprenticeship and traineeship system in Victoria in 2000, and to provide recommendations to the Victorian Government aimed at improving the quality and effectiveness of the system. Particular regard was to be given to apprenticeship and traineeship training delivered entirely on-the-job.

## Findings of research

The key findings focused on two main dimensions, systemic issues (management of the system) and training and learning quality (training and learning experiences and outcomes).

**System issues:**
Overall the system had many strengths in Victoria and the end users are satisfied with the services being provided. However, weaknesses identified included: instances of non-compliance by employers and providers with obligations to apprentices and trainees; registration and audit processes not sufficiently rigorous or consistent or informed by industry; poor arrangements for reviewing and auditing workplace training; issues surrounding pricing, user-choice, and marketing of New Apprenticeships which are reducing quality; insufficient emphasis on the workplace as a site for workplace training; grievance and complaint procedures; administrative inefficiencies; corporate governance which has not promoted collaboration; training delivery and ethical market practices; lack of policy cooperation; and registration standards that are too low or insufficiently broad in scope.

Concerns were also expressed with NACs in terms of:

- delays in entering training agreement data on DETYa's database;
- accuracy of information provided to employers on roles and responsibilities;
- inappropriate sign up of trainees; and
- a conflict of interest where NACs are RTOs, GTCs, or industry training bodies.

**Quality training and learning issues:**
In the majority of instances training and learning is effective. Most of the Victorian employers, apprentices and trainees expressed a high level of satisfaction with the system. Weaknesses identified were: the absence of training plans for 40% of apprentices and trainees who responded to the survey; insufficient use of RPL; uncertainty by employers and providers regarding roles and responsibilities; not all employers and providers demonstrating a commitment to quality training; not all training staff in RTOs had appropriate qualifications and experience; and some apprentices and trainees were not challenged by the training program. Concerns were also raised about whether the fully-on-the-job mode of delivery provides a quality training and learning experience. This was in terms of it providing sufficient skills and the need to complement it with off-the-job training.

The review also provided a list of 23 recommendations aimed at improving the quality of the system.

## Quality of research

### *Method*

**Design**
The review used a range of methods in which to build a picture of the state of the apprenticeship and traineeship system in Victoria. These included:

- a reference group of key stakeholders to assist the review identify key issues in the system;
- consultations with key stakeholders in the system in Victoria;
- interviews with 12 key stakeholders as well as representatives from PETE;
- a survey of apprentices and trainees, and employers to covering key issues considered by the review;
- focus groups of apprentices and trainees;
- a public call for submissions. A discussion paper was provided for people making submissions to help them focus on the key issues;
- a review of internal data and documents in PETE.

The several different component of the design adds depth to the overall research.

As part of the design for the research, a definition of quality and a template was developed by which to make comments on the quality of the system. The template asks questions about five aspects of quality being effectiveness, fitness for purpose, efficiency, accountability, and ethical practice and fair dealing. The template also distinguishes between systemic quality (management of the system), and training and learning quality (training and learning experiences and outcomes).

**Sample**
*Stakeholder consultations*: For small stakeholder groups, all relevant organisations were invited to send representatives. For larger stakeholder groups, a random selection was made but designed to cover different industry areas, employer sizes etc. Nominations from the project reference group and PETE staff were also used. In total, 231 people attended these consultations. It is not clear from the documentation how many of the stakeholders invited did not attend the consultations.

*Individual interviews*: Interviews were held with 12 key stakeholders and relevant PETE staff. It is not clear from the report how these 12 key stakeholders were selected.

*Surveys:* The sample was derived from a population listing of employers and apprentices and trainees in Victoria's apprenticeship and traineeship system. The sample was stratified according to ensure equal numbers of apprentices and trainees, and equal numbers of small and large employers. Random sampling was undertaken in each strata group to obtain the final sample. In total, 760 employers, 385 apprentices, and 375 trainees were interviewed for the survey. A working paper to the report discusses the sampling methodology in detail. However, no information on non-response is provided.

*Apprentice/trainee focus groups*: Four focus groups with a total of 28 apprentices/trainees were conducted. Recruits were selected from a random sample of apprentices and trainees provided to the consultant. Participants were selected to cover a range of industries for the following groups: a group of first year apprentices, a group of second, third, and fourth year apprentices, and two groups of trainees.

*Submissions*: Received through a public call placed in the media and the PETE website.

**Data collection**
*Stakeholder consultations*: Stakeholders were presented with a discussion paper to prepare them for the sessions. The sessions involved a short presentation recapping issues in the discussion paper, followed by a free flowing discussion. For PETE staff, an open forum was held.

*Individual interviews*: Assumedly face to face.

*Employer and apprentice/trainee survey*: This was administered by telephone.

*Focus groups*: A quantitative survey was administered to the group and a facilitated focus group discussion using a protocol also took place.

### *Analysis*
The analysis mainly provides a description of the interviews, surveys etc. No inferential statistics are used. Volume two of the report provides a description of the results in more detail.

Summaries of issues are provided in the text, and excerpts from submissions, consultations and interviews are used to support the contentions made.

In parts, different aspects of the methodology are integrated into the analysis, which strengthens the analysis of these aspects of the review.

The analysis points out some contrasting viewpoints. Considers both strengths and weaknesses of apprentices and trainees, although by the nature of the review, places a lot of emphasis on areas of concern.

It is not clear how the quality template that was developed as a part of this review was used to analyse the data collected. No mention of it is made in the findings section.

### *Findings and reporting*
The findings are credible overall, given the variety of different methods used in the review.

The support for the findings is stronger for the section of quality of training and learning than for system issues. The former uses surveys, focus groups and submissions to support the findings, whereas the findings for system issues tends to be based mainly on submissions, and stakeholder consultations, with some reference given to audit evidence. Some care needs to be given in making wider inferences from evidence based on submissions, as these would tend to be from people who wish to put a point of view forward, rather than being representative of the population. In addition, some strong comments are made in the review on the basis of submissions and stakeholder consultations.

For this review, the findings are not put in the context of other literature and research into this area.

### *Auditability*
The methodology for this review has been documented in quite considerable detail. Protocols for the focus group are provided, as are copies of the survey instrument for both the employer sample and the apprentice/trainee sample. There is no interview protocol provided for the individual interviews that were held however.

## Summation of weight of evidence for factors identified
The main quality concerns identified in this review were:

*System issues:*

Overall the system had many strengths in Victoria and the end users are satisfied with the services being provided. However, weaknesses identified included: instances of non-compliance by employers and providers with obligations to apprentices and trainees; registration and audit processes not sufficiently rigorous or consistent or informed by industry; poor arrangements for reviewing and auditing workplace training; issues surrounding pricing, user-choice, and marketing of New Apprenticeships which are reducing quality; insufficient emphasis on the workplace as a site for workplace training; grievance and complaint procedures; administrative inefficiencies; corporate governance which has not promoted collaboration; training delivery and ethical market practices; lack of policy cooperation; and registration standards that are too low or insufficiently broad in scope.

Concerns were also expressed with NACs in terms of:

- delays in entering training agreement data on DETYa's database;
- accuracy of information provided to employers on roles and responsibilities;
- inappropriate sign up of trainees; and
- a conflict of interest where NACs are RTOs, GTCs, or industry training bodies.

*Quality training and learning issues:*

In the majority of instances training and learning is effective. Most of the Victorian employers, apprentices and trainees expressed a high level of satisfaction with the system. Weaknesses identified were: the absence of training plans for 40% of apprentices and trainees who responded to the survey; insufficient use of RPL; uncertainty by employers and providers regarding roles and responsibilities; not all employers and providers demonstrating a commitment to quality training; not all training staff in RTOs had appropriate qualifications and experience; and some apprentices and trainees were not challenged by the training program. Concerns were also raised about whether the fully-on-the-job mode of delivery provides a quality training and learning experience. This was in terms of it providing sufficient skills and the need to complement it with off-the-job training.

The use of multiple methods is a strength of this review. The weight of evidence for findings would seem to be stronger on issues to do with quality of training and learning, than for system issues. The latter relied to a large degree on submissions and stakeholder consultations for evidence. Findings also need to be considered within the timeframe of the review.

# 29. Author and study reference

**Smith L 2000 *Apprenticeships and traineeships: Queensland trends: 1998-99 update*, Department of Employment, Training and Industrial Relations, Brisbane.**

## Aim of research

To update apprenticeship and traineeship trend data in Queensland presented in a previous 1998 report. It looks at trends over the 1994-1998 period. In the context of this study, apprenticeships refer to contracts of training for three years or more in a trade related area, and traineeships in broader occupational areas with shorter duration contracts, typically one year.

## Findings of research

Main findings were:

- an increase in apprenticeship and traineeship numbers;
- increases in numbers of female apprentices and trainees except in the trades;
- an increase in the percentage of apprentices and trainees in the 15-18 year age cohort;
- low completion rates for apprentices and trainees. The data presented shows that 52.5% of apprentices who commenced in 1994/5 did not complete, and that close to 60% of trainees for starting cohorts between 1994 and 1998 did not complete their training;
- an increase in the number of school-based apprenticeships;
- existing worker policy having an effect on the number of non-funded trainees in Queensland, particularly in certain industries, especially intermediate sales and clerical (43.5% unfunded), cleaners (28.6%), and food trades (25.2%).

## Quality of research

### *Method*

**Design**

The project essentially is a description of what was happening in respect to apprenticeships and traineeships in Queensland for 1998/99. This was so as to provide information on trends for policy makers. The type of information provided included numbers of apprentices and trainees in training by trade area, gender, full-time/part-time and age. It also provided information for apprenticeship and traineeship new approvals, commencements, cancellations, completions and attrition rates. In addition there was information on school-bases apprenticeships and funded/non-funded traineeships.

There is a discussion on limitations of the DETIR database. These limitations include inflated apprenticeship and traineeship figures due to late notification of cancellations.

**Sample**

The study is not prone to sampling errors as it uses the population of apprentices and trainees in Queensland.

**Data collection**

The data was collected from the DETIR database. The study acknowledges that there are some data quality issues within this database.

### *Analysis*
The analysis is essentially a description of apprenticeship and traineeship numbers and percentages.

Some concern must be expressed at the attrition rates that were derived for apprentices and trainees as they do not take into account recommencements of apprentices and trainees. The attrition rate derived is a summation of apprentices and trainees that had withdrawn cancelled and expired.

### *Findings and reporting*
The findings are essentially a description of the data obtained. Apart from concerns mentioned above, they provide useful information for policy makers within the Queensland context. However, the findings would not be generalisable to other states or nationally.

### *Auditability*
Sufficient description of the research process has been provided including a discussion of some of the major limitations of the data obtained.

## Summation of weight of evidence for factors identified
Key issues relating to quality of outcomes is low completion rates for apprentices and trainees with trainees having lower completion rates than apprentices, with trainees having lower completion rates than apprentices.

Most of the data presented is quite credible. However the major areas of concern are the limitations of the database and the calculation of attrition rates. This limits the weight of evidence that can be given to the low completion rate figure. This study is also specific to Queensland.

# 30. Author and study reference

**Smith LR 1999 *The impact of user choice on the Queensland training market: a progress evaluation*, DETIR, Queensland**

## Aim of research

The aims of this evaluation are to: describe market share trends of apprentices and trainees by provider type since the introduction of user-choice, provide perceptions of the users of user-choice about its strengths, weaknesses and overall effect on the training market, and to recommend ways in which the implementation of user-choice in Queensland can be improved.

The apprenticeships and traineeships referred to here are pre the New Apprenticeship system. The apprenticeships tended to be trade based with contracts of three or more years, while the traineeships covered broader occupational groupings and were generally less than two years in duration (typically around 1 year).

## Findings of research

Key findings from the evaluation included:

- that the market share of apprenticeship new approvals and re approvals by TAFE had declined since the introduction of user choice in 1994/5 with a concomitant increase in share for private providers and group training providers;
- private providers gained a market share of about three-quarters of all State traineeship approvals and new approvals by 1998;
- Main perceived advantages of the user-choice system included a greater range of training options for employers, increased interaction between employers and TAFE, and a more business-like approach by TAFE Queensland.
- Major issues of concern raised were a poor standard of 'provider' training on-the-job, particularly for traineeships delivered on-the-job, poor assessment practices, particularly for traineeships done fully-on-the-job, poor quality of learning materials for on-the-job training, inadequate information provision on user choice to employers, concerns about the quality of Queensland's future workforce, increased administrative burdens for employers and providers, constant changes in user-choice procedures and guidelines, inconsistent departmental advice, price-list not being reflective of true cost of training, numbers taking priority over quality, delays in processing claims and registering training agreements, inappropriate audits not being focused on training quality, employers not delivering training support required or do not have the skills to do so, allegations of 'deals' made between stakeholders in the system, and a perceived decline in the quality of provision by TAFE Queensland.

Recommendations for improving the effectiveness of user-choice are provided based on the above findings.

## Quality of research

### *Method*

**Design**

To answer the first aim of the evaluation – describing trends – the evaluation examined trends for apprenticeship and traineeship new approvals and re-approvals over the period 1994/5-1997/8. Data on new approvals and re-approvals were used as they provide a much sharper focus on user-choice. 1994/5 was used as the benchmark to describe the trends, as this was the last year in which there were no user-choice arrangements applied for apprenticeships.

Semi-structured interviews with a range of stakeholders in the system were conducted to gain perceptions on strengths, weaknesses and impact of user-choice in the training market in Queensland.

The research design is defensible given the aims of the evaluation, and rationale is provided for using this design. The survey component of the design is small scale and so limited in the extent to which any broader implications can be drawn from the findings.

**Sample**
Limited information was provided on the statistics pertaining to market share trends of apprentices and trainees. It is assumed that population data from DETIR database is used.

Random sampling was used to obtain the sample of interviewees. There is no mention as to whether the sample was stratified, although approximately half the people interviewed were from regional areas. In total, 10 private training providers, 7 TAFE Queensland institutes, 3 group training companies, 3 ITABs, 14 businesses/enterprises, 2 DETIR regional offices, 1 New Apprenticeship Centre, and the purchasing branch of the training section in DETIR. No information is provided on non-response.

In addition 'informal discussions' took place with 43 teaching staff, 11 apprentices and 21 trainees. No information is provided on how this informal sample was derived.

**Data collection**
It must be assumed that information on trends was gathered from DETIR departmental systems. The interviews were conducted with senior staff at their workplaces.

## *Analysis*
The analysis of trends provided were percentages of approvals and reapprovals of apprentices and trainees broken down into several categories including general trends, regional market shares, gender distributions, age distributions, and industry.

The analysis of interviews was mainly a summary of the strengths and weaknesses of the user-choice system. These strengths and weaknesses were group according to various headings, although how these headings were derived is not explained.

The suggestions for improvement are derived from comments made at interviews.

## *Findings and reporting*
The findings for the trend data are credible and follow from the percentage data presented in tables. The findings from the interview provide a useful summary of the interview results. The findings for the trend data and interview results are written so as to address the first two aims of the evaluation.

However, there is no real integration of the trend data and interview data provided. Some of the findings were shown to be supported by other research/reviews into Queensland's apprenticeship and traineeship system.

Any wider inferences drawn from the study must be taken in the context of the scope of the current study.

## *Auditability*
There is a description of the evaluation process provided, however limited information is provided on sampling issues. Sample interview questions were provided in the text.

## Summation of weight of evidence for factors identified

Some of the overriding issues of concern with user choice that can effect the quality of apprenticeships and traineeships were:

- poor standard of provider training, particularly for the fully on-the-job mode;
- poor assessment practices, particularly for the fully on-the-job mode
- poor quality of learning materials for on-the-job training, particularly for the fully on-the-job mode;
- administrative issues such as excessive paperwork and delays in processing claims and registering training agreements;
- audits not being focused on quality training;
- 'deals' between stakeholders;
- decline in quality of Queensland TAFE training; and
- employers not delivering the training support required or unable to do so.

The weight of evidence to support the findings must be considered in light of the findings being largely based on a sample of 88 interviews within the Queensland system in the late 1990s.

# 31. Author and study reference

**Smith, E & Wilson, L 2002 *Learning and training in school-based new apprenticeships*, NCVER, Adelaide.**

## Aim of research

To examine learning and training in school-based apprenticeships and traineeships.

## Findings of research

The School Based New Apprenticeship (SBNA) experience was rated overall a highly positive experience for participants.

The main reasons for people wanting to undertake a SBNA was to gain a qualification, and to gain industry experience. For many students, it confirmed a career choice for them. Although schools had a large role in recruiting students to SBNAs, they generally did not provide the off-the-job training, and where they did, they scored lower on quality of training than TAFE and other RTOs. Most SBNAs preferred on-the-job to off-the-job training.

Time spent at work for students undertaking SBNAs was similar to school students undertaking part time work, however many encountered timetabling difficulties. They were more also likely than students undertaking part-time work to enjoy their job, to have supervisory attention, to have higher levels of responsibility, and to work with adults (as opposed to other teenagers). Learning outcomes in terms of generic skills development, amount of formal training, and extent to which the new apprentices felt clear about their workplace tasks were also greater than for ordinary part time work for school students.

Areas of concern included the low number of hours worked as compared to a normal New Apprenticeship (61.5% work less than 10.5 hours per week), consequences for well-being for students spending holidays catching up, concentration of SBNAs in industries which are also most common for part-time work, poor quality training by some RTOs, and timetabling problems (almost half reported timetabling problems).

## Quality of research

### *Method*

**Design**

The design for this research project centered on a survey of students who were undertaking a school-based New Apprenticeship. The survey included questions from a previous survey on school-based New Apprenticeships conducted by Smith and Green in 2001, to allow comparison of results. The survey also included other questions based on a review of the literature, input from a reference group to the project and discussions with other stakeholders. A question on non-completion was also added based on a project on completion rates by Cully and Curtain.

There is a discussion of limitations of the design within the report. In particular, it points out that the method was limited by the small budget allocated. The design is also limited in that it only examines SBNAs from the perspective of the student.

**Sample**

It was initially desired to sample 50% of SBNAs in each three states being Victoria, Queensland and South Australia. However, in Queensland, because of the large numbers 36% were sampled, and in South Australia, the numbers had to be guessed because they were not flagged as SBNAs as such on their database of apprentices and trainees. Within each state, numbers for the sample were obtained by using an alphabetic split of surnames.

In all, 641 out of 2330 surveys sent out were returned (27.5%). No direct comparison of the characteristics of the sample to the population of SBNAs is made, however a profile of respondents is provided indicating that the sample does cover a broad range of characteristics.

**Data collection**
The survey was administered by questionnaire sent to the homes of the students, with an explanatory covering letter. Addresses were obtained from the database of apprentices and trainees held by each State Training Authority.

### *Analysis*
The analysis consists largely of descriptive statistics based on the survey data. However, general comments made by students in the surveys are used to illustrate and support the survey results.

There is no analysis of non-response.

### *Findings and reporting*
The findings follow directly from the analysis. Survey findings are illustrated by written comments made by students.

A literature review is provided and use is made of other research in this area to compare and contrast the findings from this survey research. The findings are supported by other research in the area.

The findings clearly present both positive results, as well as areas of concern.

Given that this is a small-scale study, caution needs to be taken in making any wider inferences from the findings.

### *Auditability*
The research design and sample selection is well documented. There is also a copy of the survey instrument attached to the report.

## Summation of weight of evidence for factors identified
Factors of concern identified relating to SBNAs include:

- lower quality of training provided by schools,
- timetabling issues,
- low number of hours worked compared to a normal New Apprenticeship,
- a concentration in industries most common for part-time work, and
- the well being of students doing catch-up during holidays.

Given that this is a small-scale single method research project with a modest response rate, the findings should be regarded as indicative rather than representative of School-based New Apprenticeships.

# 32. Author and study reference

**Strickland et al 2001 *Evaluating on-and off-the-job approaches to learning and assessment in apprenticeships and traineeships*, NCVER, Adelaide.**

## Aim of research

Sought to evaluate on- and off-the-job approaches to learning and assessment for apprentices and trainees. The specific objectives were to:

- what different stakeholders in the system expect apprentices and trainees to learn;
- identify the different approaches to learning and assessment that can be undertaken;
- evaluate the extent to which these different approaches contribute to the learning goals and needs of apprentices and trainees;
- evaluate areas where improvements may be made to learning and assessment practices and identify strategies and interventions for change.

## Findings of research

The research identified a range of factors important to quality learning and assessment for apprentices and trainees. Some core components of a quality learning and assessment system identified in the workplace included effective instructors, clearly articulated processes for assessment in the workplace, opportunities for apprentices & trainees to work on their own, feedback and encouragement, and opportunities to undertake meaningful work that will support learning. The quality of workplace relations was highlighted.

Apprentices and trainees participating in the study generally had learning and assessment expectations fulfilled, particularly where there was a combination of on and off-the-job learning. Areas identified by apprentices and trainees as not currently happening in a third to half of workplaces included opportunities to work on their own, being able to be formally assessed when they are ready and attend workshops and classes that count towards their qualification, employers and trainers taking time to talk about the job, and employers and trainers showing an interest in the workforce.

Apprentices and trainees were found to value in the off-site learning environment; time to learn and practice skills not taught in the workplace, time to talk with others about the job and opportunities to have competence formally tested.

Apprentices in hospitality/motor mechanics reported the following absent from workplaces: opportunities to work on own (56% reported absent), being able to be formally assessed when ready (48%0, given feedback and encouragement on work performance (40%), opportunities to talk to employer/trainer about what they would like to learn (37%), opportunities to practice skills (35%), being aware of what is required when assessed in workplace (32%), being able to attend classes and workshops that count towards qualifications (32%), employers/trainers taking time to talk about job (32%), employers/trainers showing interest in workforce (31%).

Trainees reported the following absent: opportunities to work on their own (47% absent), able to attend workshops that count towards qualification (46% absent), opportunities to talk to employers/trainers about off-site training (43%0), opportunities to have competence formally assessed while at work (35%), being able to be formally assessed when ready (33%0, employers/trainers showing interest in the workforce (33%), employers/trainers taking time to talk about their job (32%).

Three aspects rated by apprentices and trainees as being important in off-site environments were:

- teachers/trainers are effective instructors,
- opportunities to practice skills not taught in the workplace,
- opportunities to have competence formally tested.

The following were rated by apprentices in work-place only contracts as important in helping them learn than apprentices in integrated contracts:

- good relationship with people training you in the workplace,
- trainers/employers talk about job,
- trainers/employers taking time to listen to concerns,
- encouraged to take on more difficult and complex tasks.

The following were rated by trainees in work-place only contracts as important in helping them learn than apprentices in integrated contracts:

- employer/trainer plans work so that you are able to work at level that best fits your experience
- given opportunities to share ideas and learning with other people who work with you
- trainers/employers take time to talk to you about job
- employer/trainer organises work so you can work at own pace
- challenged to come up with new and different ways of doing things.

Concern was raised by apprentices and trainees about workplace only contracts in terms of what is expected, and what is received vis-à-vis: training plans, opportunities to share ideas, and employer taking time to talk about the job. The importance of learning cultures in fully on-the-job was mentioned.

## Quality of research

### *Method*

**Design**
The research consisted of three phases. The first phase consisted of focus groups with key stakeholders in the system in every State and Territory (66 participants in total). The purpose of these were to establish key issues regarding the nature of learning in apprenticeships and traineeships. The second phase consisted of case studies in 20 selected sites. A range of factors were taken into account when selecting case study sites including site of learning, breadth of learning, mode of assessment, industry and location. The third phase, undertaken concurrently with the case studies was a national survey of apprentices and trainees in motor mechanics, and hospitality.

A discussion of the aims of the design is included. The three different aspects of the design adds depth to the overall research.

**Sample**
There is a discussion of how the sample for the focus groups and case studies were derived. A stratified sample was used for the survey. 595 useable surveys were received out of a total of 5578 surveys sent out, giving a response rate of 10.6%. Useful discussion of possible reasons for this low return rate is provided including currency of details on the database, the mobile nature of the target population, and the inability to follow-up non-respondents. Nevertheless, the low return rate is of concern in terms of the validity of the overall results.

**Data collection**
Protocols were developed for the interviews and the case studies. Site visits were undertaken for the case studies. State and Territory training authorities undertook to mail out the questionnaire survey. The completed surveys were asked to be returned to the researchers. This way, confidentiality of the respondents was maintained.

**Analysis**
Description of the focus groups and case studies were used to answer the first two research questions. Summary tables were used where appropriate and illustrative quotes from interviews were used to highlight points. Analysis of the survey was used to evaluate on- and off-the-job approaches to learning and assessment from the perspective of apprentices and trainees. The analysis of the survey relied mainly

on descriptive statistics (means and frequencies), however chi-squared tests were conducted to test the relationship between aspects of the workplace training and type of training delivery (integrated or workplace only) for both apprentices and trainees.

There is also an integrative analysis bringing the results from the different types of data collected together, albeit somewhat descriptive in nature.

### *Findings and reporting*

The findings are credible given the diverse sources of data collected. They are supported by the analysis presented. The findings are also corroborated by findings from other relevant research. However, the survey was only administered to two occupational groups (motor mechanics and hospitality workers) and the response rate was very low, meaning that there is some question as to how generalisable the findings of the survey are.

The findings are written in such as way as to link them to the objectives of the research. Key issues are summarised in the conclusion and executive summary.

### *Auditability*

The research process has been adequately documented and protocols have been provided for the different stages of the research. There is sufficient documentation provided in order to be able to reproduce most of the research.

## Summation of weight of evidence for factors identified

Factors important to providing quality learning and assessment on-the-job included effective instructors, clear assessment processes, opportunities to work on own, provision of feedback and encouragement about work performance, ability to undertake meaningful work, and quality workplace relations. Off-site learning is seen as important in complementing workplace learning. Teachers/trainers being up to date with what is happening in the workplace is a factor in good off-site learning.

Factors of concern with the fully on-the-job mode were absence of training plans, lack of opportunities to share ideas, and employers not taking time to talk about the job. The presence of a learning culture was also seen as a quality factor.

The use of multiple methods lends weight to the findings of the research. There must be some question as to how generalisable the results of the survey are given the low response rates and that they were administered to only two occupational groups (motor mechanics and hospitality).

# 33. Author and study reference

**Toner P, Croce N, Pickersgill, R & Van Barnevald, K 2001 *Trends in apprenticeship and traineeship training in New South Wales,* NSW BVET, Sydney.**

## Aim of research

To analyse trends in apprenticeship and traineeship training in NSW with a view to provide recommendations for improvement in the training. Reference was to be given to access, participation and completion rates, quality and flexibility of training, and meeting skill shortages.

Apprenticeships in this study refer to trade based apprenticeships, with traineeships referring to other broader occupational groupings.

## Findings of research

In regard to apprenticeship trends, key findings were:

- Decline in apprenticeship approvals over the 1990's;
- Decline in the share of traditional trades, although an increase in the share of construction apprentices and a growth in shares of food trade apprentices;
- Declining rates of apprentice training.

In regard to traineeship trends, key findings were;

- Concerns about concentration of traineeships in low-skill occupations, the quality of training provided in traineeships, low trainee completion rates, and dilution of AQF III and IVs standards;
- An increase of 420% in traineeship commencements for the period 1994/5-1998/9.

General survey findings were:

- Concerns about the complexity of the system, administrative arrangements and NACs.
- Employers general lack of knowledge of the system
- General satisfaction with the system by apprentices and trainees. Although the numbers were small, dissatisfaction by trainees was concentrated in the fully-on the-job arrangement because the balance was too much in favour of on-the-job training;
- General support by both employers and apprentices and trainees for on and off-the-job training received.

## Quality of research

### *Method*

**Design**

A multi-method design was used to answer the terms of reference for the research project. The research undertaken included:

- Collection and analysis of data on apprenticeship and traineeship training in NSW and Australia so as to identify trends;
- Three surveys of key stakeholders in the system in NSW, apprentices and trainees in NSW, and employers in NSW. The aim of these surveys was to gain qualitative information on attitudes and experiences and to complement the quantitative information obtained;
- A review of existing research in the area.

The multi-method approach used adds depth to the overall research with the quantitative and qualitative methods complementing each other.

**Sample**
The trend data on apprentices and trainees is based on whole population rather than sample, within the timeframe 1985/6-1998/9.

There were three samples for the surveys. The first sample consisted of consultations with 30 key stakeholders in the NSW system. No information on how these stakeholders were selected is provided. There is also a discrepancy between the number in the sample reported in the findings section (30) and executive summary and introduction (130).

The second sample was a survey of 3000 apprentices and trainees, 50% apprentices, and 50% trainees. However, it is not clear whether 3000 surveys were sent out or 3000 were received. One would suspect that it was the former. The lack of mention of a response rate for the survey is therefore of concern.

The third sample was a survey of employers. There were two sample frames used for this survey. The first was a sample of employers registered as currently employing apprentice and/or trainees (study group), and the other sample frame was a sample of employers who were not (control group). Both were stratified according to metropolitan and regional and selected by occupation. Of 543 workplaces included in the samples, 332 responded, giving a response rate of 61% (163 from the study group and 169 from the control group).

**Data collection**
The trend data was collected from the apprenticeship database on the NSW's IVETS system, NCVER data, and early time series data from the former DEET's annual apprenticeship statistics.

A number of limitations of the data are discussed in the report including: difficulties in compiling time series for trades and for industries, and for comparison of national and NSW data, change in recording date of commencements for national data, national database commencement figures being subject to revision, no separate apprenticeship and traineeship data from 1997/8 inadequate integration of NSW databases for on- and off-the-job training data, and consistency of sector classifications.

Consultation with key stakeholders was undertaken by interview, the survey of apprentices and trainees by mail survey, and the survey of employers by telephone.

## *Analysis*
The analysis was descriptive for the section on trends, and for the survey results, using numbers and percentages for the trend data, and percentage only for the main surveys.

Figures, and tables in the appendix are used to support the analysis on apprentice trends. The analysis of survey results is not supported by tables or figures. There is also no comparison of how representative the sample of apprentices and trainees surveyed is to the broader population of apprentices and trainees.

An integrative analysis using other research literature is provided.

## *Findings and reporting*
The findings for the trends in apprenticeship data are credible given the method used. They clearly follow from the analysis presented. However, the findings of the surveys are not reported in detail, and supporting tables and figures would have enhanced this aspect of the research.

The use of wider literature in the area supports the findings. The final section of the report usefully summarises the findings as a basis for developing recommendations for improvement.

Although the nature of the study has some scope for broader generalisation, it is focused on apprenticeship and traineeship trends specific to NSW.

### *Auditability*

The methodology for the trend data is quite clearly stated. More information could have been provided on response rates for the surveys, in particular the survey on apprentices and trainees. In addition, there was no survey instrument or interview protocols attached to the report.

## Summation of weight of evidence for factors identified

Factors mentioned that could affect quality of traineeships included their concentration in low skill occupations, quality of training provided, low completion rates and dilution of AQF III and IV qualifications.

Other factors arising from the survey that could affect quality of apprenticeships and traineeships included lack of employer's knowledge of the system, and some dissatisfaction with the fully on-the-job mode in terms of it being weighted to much on-the-job.

The use of multiple methods lends support to the findings of the research. The main reservation with the survey is the lack of detail on response rates for the surveys undertaken. If they were low, this can limit the validity of the survey findings. The only factors that were based on data for traineeship trends were completion rates and concentration in low skill occupations. The other factors identified are either inferred or based on a review of the literature.

# 34. Author and study reference

**Western Australia Department of Training *1998 New Apprenticeships: Making it work*, Western Australia Department of Training, East Perth.**

## Aim of research

The research aimed to provide policy-relevant research data in regards to State and national initiatives to expand employment-based training. It specifically examined how and why apprentices and trainees, and employers get involved in the system, and factors that lead to success.

## Findings of research

A variety of success factors were identified through the focus groups. These were grouped under the headings of apprentice skills, employer skills, system support, and training delivery. Based on survey results that asked respondents to rate the importance of, and satisfaction with these success factors, the greatest opportunities for improvement lies with system support and training delivery. Similar ratings were given by both employers and apprentices and trainees.

In terms of system support the main areas of improvement lie with the role of schools in providing information on apprenticeships and traineeships, regulation and monitoring arrangements to avoid exploitation, and face-to-face contact with representatives of the system. Additionally, employers, and apprentices/trainees mentioned concern with the cost of training.

Areas for improvement with training delivery were availability of graded assessment, the role of the provider in explaining training content to apprentices and trainees, and the extent to which the training provider is up to date with industry. There was also concern by apprentices and trainees regarding choice of training providers and ability to negotiate time off-the-job. Additionally apprentices and trainees mentioned the value of off-the-job training in terms of providing support and information.

Apprentice/trainee skills and employer skills were also rated (apprentice/trainee rated by employer and vice-versa). All apprentice/trainee and employer skills were rated as being important. Areas of greatest shortfall between importance and satisfaction were:

- for apprentice/trainee – showing intitiative at work and finding useful things to do without being told;
- for employers – relates on-the-job training to off-the-job theory, rewards or acknowledges good performance, and provision of regular feedback.

The research also revealed that there were essential differences between apprenticeships and traineeships. In particular,

- employers of apprentices were more motivated and committed than employers of trainees,
- apprentices were more likely to be male, 18-20, recruited through work experience or personal networks, while trainees had a better gender balance, older, and be recruited through employment agency or newspaper add, and
- apprentices were more likely to be employed prior to their apprenticeship and satisfied with their choice of occupation than trainees.

## Quality of research

### *Method*

**Design**

The research involved a review of current literature, a compilation of relevant statistical information, focus groups with employers, apprentices and trainees, and Group Training Companies, a survey of employers,

apprentices and trainees (developed from the results of the focus groups), and workshops to review survey data. There is discussion in the appendix to the report of how the method meets the aims of the project.

**Sample**
Discussion is provided on data sources used for obtaining apprenticeship and traineeship statistics, and as to how the focus groups were formulated. 11 focus groups consisting of 94 participants were conducted. The questionnaire administered to 205 employers and 332 apprentices and trainees. Of concern is that sampling methodology for the survey was not discussed, nor were response rates, so it is not clear as to how the sample was derived.

**Data collection**
Data for the apprenticeship and traineeship statistics was sourced from various systems including the ABS, NCVER and the Western Australia Department of Training's Training Records System (TRS). The focus groups were facilitated by research staff in the department, and the surveys were administered by face to face interviews. A copy of the survey instrument(s) and protocols for the focus groups is provided in the report.

### *Analysis*
The analysis provided is largely descriptive of the results of the various stages of the research. No use was made of inferential statistics in any of the analysis. For the survey, demographics of the sample were compared to data held on the TRS where possible. This analysis showed the sample to be reasonably representative of the population, however cautions on interpretation were provided where appropriate.

### *Findings and reporting*
The findings are credible and follow from the analysis provided. Support for the findings was provided by support to other pertinent literature. Recommendations for policy were supported by reference to findings of the study. The section on policy issues and recommendations to some extent integrates the findings from the rest of the report.

Main findings were clearly identified throughout the report by the use of small captions.

### *Auditability*
The research process is described in a reasonable of detail overall. However, there is a concern over the lack of documentation as to how the sample for the survey was collected.

## Summation of weight of evidence for factors identified
The main factors for improvement identified were for:

- system support – role of schools in information provision, regulation and monitoring arrangements, and level of contact with representatives of the system;
- training delivery – availability of graded assessment, the role of provider in explaining content of training, the extent to which provider is up-to-date with industry trends, limited choice of providers for apprentices and trainees, and ability to negotiate times for off-the-job training
- apprentice skills - showing initiative at work and finding useful things to do without being told;
- employer skills – relates on-the-job training to off-the-job theory, rewards or acknowledges good performance, and provision of regular feedback.

In addition, the value of off-the-job training in providing support and information was raised as an issue by apprentices and trainees. In terms of differences between apprenticeships and traineeships, employers of apprentices were found to be more motivated and committed than employers of trainees.

The use of multiple methods lends weight to the findings of the research. There are constraints in generalising the findings due to the studies focus on Western Australia. There is also some concern as to how the sample for the survey was selected. The study is also set in a time predating New Apprenticeships.

# 35. Author and study reference

**Winterbotham M, Adams, L and Lorentzen-White, D 2000 *Modern Apprenticeships: Exploring the reasons for non-completion in five sectors,* DfEE, Great Britain.**

## Aim of research

To investigate the nature, scale and causes of non-completion of Britain's Modern Apprenticeship system in five sectors. The five sectors were Care, Hospitality, Retail, Motor, and Electrotechnical.

## Findings of research

The balance of opinion about Modern Apprenticeship (MA) training by non-completers was very positive with 79% saying they enjoyed the training, 78% saying they felt they learnt a lot, and 47% saying it has helped them in their career.

Delivery of MA varied by sector, with for example, nearly all those in Motor and Electrotechnical attending college, while about a third of Retail MAs claimed to have no formal training at all.

About half of the young people who started an MA had no clear idea about the sort of work that they wanted. Many started the MA without a clear idea as to what was involved, particularly what the training would involve and how long it would take. The survey also found that employers were not well placed to provide that information. Additionally, some employers were found to be relatively uncommitted to MAs, as, for example, they had difficulty in understanding the relevance of many key skills to their workplace.

Most reasons for non-completion did not refer to the training itself. Contrary to expectations, coercion was not a significant cause of non-completion.

Most non-completers were in work (86%), with 59% working for a new employer, and 28% staying with the same employer. Over half of the non-completers that changed employers said they were interested in continuing training, however in 70% of these cases, the employers did not offer MA training.

## Quality of research

### *Method*

**Design**

Information by way of interviews and discussion was obtained from three types of stakeholders in the system. These were recent non-completers of MAs, training providers experiencing non-completers, and employers experiencing non-completers. Five industry sectors were chosen for the study to allow reliable comparisons. They were further broken down into sectors with a strong tradition (e.g. Motor), and not so strong tradition (Retail and Hospitality).

Six exploratory interviews were conducted at the start of the research with non-completers in order to identify issues. A questionnaire for non-completers was subsequently developed, piloted and amended. Data collected from training organisations and employers were qualitative and semi-structured.

**Sample**

*Non-completers*: Names were selected as leavers for the period June-December 1999. An appendix to the main report provides a detailed breakdown of how the final sample was arrived at. In total, 772 out of 1,134 suitable respondents were surveyed, giving a very good response rate of 68%.

*Training organisations and employers*: Although the report mentions that samples were provided to the research team by DfEE and the Training Standards Council in the case of Training Organisations, and

Training Organisations and Business databases in the case of employers, details of the sampling are not provided. In total, 41 training providers and 41 employers were interviewed.

**Data collection**
Data for non-completers was obtained using CATI. Interviews with Training providers were conducted mainly face-to-face (one phone interview), and with employers mainly by phone, although some were undertaken face to face. All the fieldwork took place during 2000.

### *Analysis*
Analysis of the non-completers survey data used descriptive statistics (frequencies, percentages). The analysis was broken into discrete sections covering a profile of non-completers, the start of the MA programme, the MA training experience, reasons for not finishing the MA, and the current situation of non-completers.

The analysis of issues arising from training organisations and employers consisted of a description of the themes arising from these interviews.

No inferential statistics were used in any of the analysis.

### *Findings and reporting*
The findings follow clearly from the analysis provided, and provide useful information on non-completers of the Modern Apprenticeship system. A final integrative chapter in the report highlights the key issues arising from the survey of non-completers, and interviews with training providers and employers. These key issues address the aims of the study.

Findings from the employers and training providers interviews, including, quotes are used to support and compare to the findings of the survey of non-completers.

Little reference from other research in the area is provided to confirm or illuminate this research.

In making any wider inferences from the findings, note needs to be taken that the issues raised pertain to the Modern Apprenticeship system in Britain, to non-completers as opposed to all Modern Apprentices, and to five sectors in industry only.

### *Auditability*
The process for this research is fairly well documented with detailed information on the sampling of non-completers provided. Copies of questionnaires used for all the groups of stakeholder surveyed are supplied in an appendix to the report. There is however, little detail on how the sample of training providers and employers were arrived at.

## Summation of weight of evidence for factors identified
The main factors affecting non-completion referred to in this study were:

- Apprentice expectations not being fulfilled and lack of commitment;
- Inadequate employer commitment; and
- Inadequate level of information provided to apprentices and employers.

The findings from the survey of non-completers is sound. The findings need to be considered in the light of them pertaining to Britain's Modern Apprenticeship system. The research is also focused on non-completers and five sectors of industry.

# APPENDIX 2: FULL ANALYSIS OF DATA

Katrina Ball

Ann Blythe

# Introduction

This appendix provides background national data on apprentices and trainees, in support of the main research paper *Factors Pertaining to Quality Outcomes of Shorter Duration Apprenticeships and Traineeships* and is separated into seven sections:

*Trends* looks at some general characteristics of apprentices and trainees in-training, from 1998 to 2003. Also discussed in brief are the figures for commencements and numbers in-training by contract duration (that is, contracts of two years or less and contracts of over two years duration ), over the same period.

*Commencements* and *In-Training* provides information for 2002 and 2003, disaggregated by contract duration, for a variety of variables including occupational and industry areas, as well as age. All tables indicate whether the apprentice or trainee was identified on the training contract as an existing worker. An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

*Expired Contracts* looks at the occupational areas for apprentices and trainees whose contracts expired in 2002 and 2003. That is, contracts where the apprentice of trainee has passed the expected completion date, but for which no final status is known.

*Completions Rates* considers the cohorts of apprentices and trainees who commenced their contract of training between 1995 and 2000. Specifically, the percentages of individuals in this cohort who completed successfully are discussed by a number of variables, including employer type, industry and occupational areas, full-time and part-time status, and highest school level completed.

*Characteristics of non-completers* is specifically focussed on those apprenticeships and traineeships which ended in a withdrawal or cancellation within the year specified.

*Outcomes* features information derived from the 2003 NCVER student outcomes survey, and considers specifically those outcomes for apprentice and trainee courses at Certificate level I and II, which are typically shorter duration traineeship courses, compared to those for other groups, including longer duration apprenticeship courses and others undertaking non-apprentice/trainee courses at Certificate levels I and II and III and IV.

# Trends

- The apprenticeship and traineeship system has expanded to all VET qualifications. Table A below shows that there has indeed been an increase in the proportion of apprenticeships and traineeships at the Certificate IV level (from 3% in 1998 to 8.6% in 2002). However, the majority (over 90%) of apprenticeships and traineeships still occur at the Certificate II/III level.

**Table A: Distribution of apprentices and trainees in training by qualification for December quarter 1998-2003 (%)**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|
| Certificate I | 0.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| Certificate II | 25.4 | 21.4 | 19.4 | 18.1 | 17.6 | 15.4 |
| Certificate III | 70.9 | 75.2 | 75.5 | 74.9 | 74.6 | 75.6 |
| Certificate IV | 3.0 | 3.1 | 4.9 | 6.8 | 7.6 | 8.6 |
| Diploma | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Source: New Apprenticeship, December 2003, collection 38

- Apprenticeships and traineeships have also widened in scope across industry and occupation as the roll out of Training Packages to cover all industry sectors in the economy has occurred. Apprenticeships and traineeships are no longer primarily the domain of 'traditional' trades such as manufacturing and construction, and more recently business. They are now undertaken in a broader range of industries such as security, cleaning, and health and welfare, and a much broader range of occupations such as intermediate service and clerical workers, and associate professionals. Table B below shows how tradespersons have decreased over time as a share of overall apprentices and trainees.

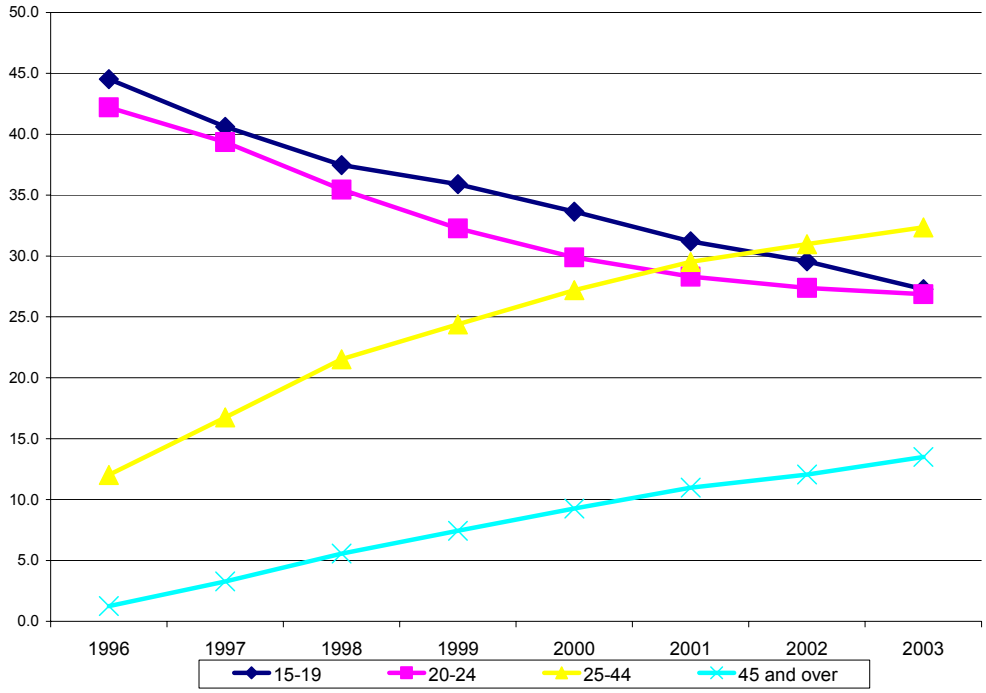
**Table B: Number and share of apprentices and trainees in training for December quarter 1995-2003**

| Occupation | 1995 | | 1999 | | 2003 | |
|---|---|---|---|---|---|---|
| | *'000* | *%* | *'000* | *%* | *'000* | *%* |
| 1 Managers and Administrators | 1,700 | 1.2 | 1,640 | 0.6 | 2,740 | 0.7 |
| 2 Professionals | 70 | 0.0 | 1,660 | 0.6 | 2,740 | 0.7 |
| 3 Associate Professionals | 1,890 | 1.3 | 6,630 | 2.6 | 33,410 | 8.2 |
| 4 Tradespersons | 120,790 | 85.4 | 130,260 | 51.0 | 138,520 | 34.0 |
| 5 Advanced Service and clerical | 70 | 0.1 | 240 | 0.1 | 8,020 | 2.0 |
| 6 Intermediate Service and clerical | 10,230 | 7.2 | 58,800 | 23.0 | 113,720 | 28.0 |
| 7 Intermediate Production | 860 | 0.6 | 15,600 | 6.1 | 50,860 | 12.5 |
| 8 Elementary Service and clerical | 2,990 | 2.1 | 19,210 | 7.5 | 21,770 | 5.4 |
| 9 Labourers | 2,810 | 2.0 | 21,150 | 8.3 | 35,070 | 8.6 |
| Total | 141,390 | 100.0 | 255,180 | 100.0 | 406,850 | 100.0 |

Source: NCVER Apprenticeship, December 2003, collection 38

- Apprenticeships and traineeships were originally designed as an entry-level system for school-leavers and young people. However, the New Apprenticeship scheme now serves a much wider age group. Of apprentices and trainees that commenced in 2002, over 27% were existing workers (NCVER, 2003). Figure 1 below shows how the age distribution of apprentices has changed, with an increase in the proportion of apprentices and trainees aged 25-44, and 45 and over.

**Figure 1: Percentage of apprentices and trainees by age, 1996-2002**




Source: NCVER Apprenticeship, December 2003, collection 38

- In terms of training contract duration, there were differences in 2003 between the commencing and in-training cohorts of apprentices and trainees. Overall, when looking at apprentices and trainees in-training, there are more training contracts which are being under taken over longer, rather than shorter, durations (57.0% compared to 43.0 %). However, it is apparent that apprentices and trainees who commenced in 2003 did so in contracts that had shorter, rather than longer, durations (58.7% compared to 41.3%). See Table C.

**Table C: Apprentice and trainee commencements and numbers in-training 2003, by contract duration**

| Duration | Commenced | % | In Training | % |
|---|---|---|---|---|
| | 1 Jan - 31 Dec 03 | | At 31-Dec 03 | |
| Two years and under | 16,6140 | 58.7 | 17,5060 | 43.0 |
| Over two years | 117,050 | 41.3 | 23,1790 | 57.0 |
| Training duration | 28,3190 | 100.0 | 406,850 | 100.0 |

Source: NCVER Apprenticeship, December 2003, collection 38

# Commencements

## Dotpoint analysis

Information is derived from apprenticeships and traineeships data for 1 January to 31 December 2003, collection number 38.

- In 2002, there were more individuals commencing in shorter duration apprenticeships and traineeships (64.4%), than those commencing in contracts of over two years duration (35.6%). This was also true for 2003, though the proportions narrowed considerably (58.7% commencing in contracts of 2 years or less, compared with 41.3% in contracts of over two years).
- In 2002, 27% of apprentice and trainee commencements were existing workers, compared to 29% in 2003.
- Of the existing workers in 2002, the majority (73.4%) had commenced in contracts of 2 years and under, compared to 26.6% commencing in contracts of over two years. These proportions were similar in 2003 (70% compared to 30%).
- In 2002, the proportions of males and females commencing in shorter duration apprenticeships and traineeships were similar, though males were slightly higher (52.8% compared to 47.2%), however for individuals commencing in contracts of greater than two years duration, the proportion of males (63.5%) was significantly higher than females (36.5%). These proportions were similar for 2003.

### Table 1.2

Compared to those in longer duration contracts, apprentices and trainees commencing in shorter duration contracts dominated in all occupational areas with the exception of the Tradespersons and Related Workers group.

Of all apprentice and trainees commencing in 2002 in shorter duration contracts

- only 6.5% were in the Tradespersons and Related Workers group, compared to 45.9% of those in contracts of greater than two years duration.
- in the Intermediate Clerical, Sales and Service group these proportions were 40.4% and 29% respectively and
- in the Intermediate Production and Transport Workers the proportions were 15.5% and 6.9% respectively.

There were considerable differences in the Occupational groups (ASCO) for apprentices and trainees commencing in a contract who have been identified as existing workers, compared with other apprentices and trainees. Of particular interest are the following proportions;

In 2002

- 18.2% of existing workers were in the Associate Professionals group, compared to 5.3% of those not identified as existing workers. The majority of the former (81.7%) were in contracts of two years or less, compared to just 18.3% in contracts over two years. This is comparable to 17.4% and 5.6% respectively for this group in 2003, with similar proportions in terms of duration.

- Only 8.1% of existing workers were in the Tradespersons and Related Workers group (with 41.8% in shorter duration contracts), compared to 25.1% of those not identified as existing workers (with 17.8% in shorter duration contracts). This is comparable to 6.1% (24.5% in shorter duration contracts) and 24.8% with 12.2% in shorter duration contracts) respectively for this group in 2003.
- 29% of existing workers were in the Intermediate Clerical, Sales and Service Workers group (with 73.5% in shorter duration contracts), compared to 39.1% (with 71.0% in shorter duration contracts) of those not identified as existing workers. By 2003, this had evened out to 34.6% (with 68.2% in shorter duration contracts) and 36.9% (with 31.8% in shorter duration contracts) respectively.
- 28.1% of existing workers were in the Intermediate Production and Transport Workers group (with 78.5% in shorter duration contracts), compared to 6.6% of those not identified as existing workers (with 82.7% in shorter duration contracts). This is comparable to 8.3% and 13.3% respectively for this group in 2003.
- 7.4% of existing workers were in the Labourers and Related Workers group, compared to 12.3% of those not identified as existing workers. This is comparable to 12.4% (with 81.4% in shorter duration contracts) and 22.4% (with 79.9% in shorter duration contracts) respectively for this group in 2003.

## Table 1.3

Individuals commencing in training contracts of shorter durations were much more likely to be in full-time contracts, than those who were commencing in contracts of over two years.

In 2002:

- 80.1% of all apprentices and trainees commencing a contract with a duration of two years or less were in a full-time training contract, with over 19% being in a part-time contract. This contrasts with individuals in contracts of over two years duration, where the proportions were 56.7% and 43.3% respectively. By 2003, full and part time numbers for existing workers in longer duration contracts were roughly equal.
- the proportions for existing workers in shorter duration contracts were even more marked, with 93.0% in full-time contracts and only 7.0% in part-time contracts. In 2003, these proportions increased to 96.0% and 4.0% respectively.

## Table 1.4

Close to 60% of apprentices and trainees commenced in contracts falling within just four ANTA industry areas in both 2002 and 2003. These included Sales and Personal Services (22.2% and 21.8% respectively), Tourism and Hospitality (9.7% and 9.8% respectively), Transport and Storage (10.1% and 8.9% respectively) and Business and Clerical (15.8% and 14.6% respectively).

Of particular interest were the latter two industry areas. In 2002 23.7% of existing workers were in Transport and Storage compared to 5.1% of apprentices and trainees not identified as existing workers. Of the 23.7%, the majority (89.8%) were in shorter duration contracts. This compares with 16.7% and 5.5% respectively in 2003 where again the majority were in shorter duration contracts (88.9%).

In 2002 15.8% existing workers were in Business and Clerical compared to 14.1% of apprentices and trainees not identified as existing workers, however by 2003 these proportions were 23.3% and 13.5% respectively. Again, for both years, shorter duration contracts accounted for more than 80% of apprentices and trainees in these industry areas.

## Table 1.5

This table only relates to individuals identified as existing workers. In 2003, apprentice and trainee commencements predominated in the 25 to 44 year old age group (51.3%). This was followed by individuals aged 45 and over (27.3%), with those aged 20 to 24 and 19 and under accounting for 13.0%

and 8.3% respectively. These proportions were roughly the same, regardless of duration and were relatively unchanged from the previous year.

In 2002, individuals in the 19 and under age group who commenced in contracts of over two years duration were slightly more likely to have completed year 12 (15.4%) than those in the same cohort who commenced in contracts of two years or less. In contrast, older people aged 25 to 44 commencing in the shorter duration contracts were slightly more likely to have completed year 12 (50.6%) than those in the same cohort who were in longer duration contracts (46.2%). This pattern remained relatively unchanged in 2003.

Notably, only 13.9% of all individuals aged 45 years and over had completed year 12 in 2002 however this figure increased to 17.2% in 2003.

**Table 1.1: Apprentice and trainee commencements, 1 January to 31 December by Existing Worker* status, Duration and Sex**

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | *Existing Worker* | *Other* | *Total* | *Existing Worker* | *Other* | *Total* |
| **Two years and under** | | | | | | |
| Male | 30820 | 59800 | 90630 | 32100 | 53910 | 86020 |
| Female | 21990 | 59130 | 81110 | 25360 | 54760 | 80120 |
| Unknown | 0 | 0 | 0 | (a) | 0 | (a) |
| Total | 52810 | 118930 | 171740 | 57470 | 108670 | 166140 |
| **Over two years** | | | | | | |
| Male | 10350 | 49980 | 60330 | 11640 | 59310 | 70950 |
| Female | 8820 | 25870 | 34690 | 13010 | 33100 | 46110 |
| Unknown | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 19170 | 75850 | 95020 | 24640 | 92410 | 117050 |
| **All contracts** | | | | | | |
| Male | 41170 | 109780 | 150950 | 43740 | 113220 | 156960 |
| Female | 30810 | 85000 | 115810 | 38370 | 87860 | 126230 |
| Unknown | 0 | 0 | 0 | (a) | 0 | (a) |
| Total | 71980 | 194780 | 266760 | 82110 | 201080 | 283190 |

* An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

**Table 1.2: Apprentice and trainee commencements, 1 January to 31 December, by Existing Worker* status, Duration and Occupation (ASCO) Code**

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | *Existing Worker* | *Other* | *Total* | *Existing Worker* | *Other* | *Total* |
| **Two years and under** | | | | | | |
| 1 Managers and Administrators | 690 | 460 | 1160 | 2050 | 410 | 2460 |
| 2 Professionals | 190 | 1100 | 1290 | 170 | 1170 | 1340 |
| 3 Associate Professionals | 10740 | 8820 | 19550 | 11420 | 9120 | 20540 |
| 4 Tradespersons and Related Workers | 2450 | 8700 | 11150 | 1230 | 6060 | 7280 |
| 41 Mechanical and Fabrication Engineering | 100 | 550 | 650 | 50 | 370 | 430 |
| 42 Automotive | 100 | 780 | 880 | 60 | 450 | 510 |
| 43 Electrical and Electronics | 60 | 650 | 710 | 40 | 320 | 360 |
| 44 Construction | 80 | 1360 | 1440 | 50 | 860 | 900 |
| 45 Food | 1110 | 2330 | 3450 | 370 | 1500 | 1870 |
| 46 Skilled Agricultural and Horticultural Workers | 610 | 820 | 1440 | 430 | 840 | 1270 |
| 49 Other Tradespersons and Related Workers | 370 | 2160 | 2530 | 230 | 1680 | 1910 |
| 5 Advanced Clerical and Service Workers | 1560 | 4250 | 5810 | 1590 | 3240 | 4830 |
| 6 Intermediate Clerical, Sales and Service Workers | 15320 | 54040 | 69370 | 19370 | 47150 | 66530 |
| 7 Intermediate Production and Transport Workers | 15880 | 10670 | 26550 | 14950 | 11460 | 26410 |
| 8 Elementary Clerical, Sales and Service Workers | 2660 | 11700 | 14370 | 3740 | 11790 | 15530 |
| 9 Labourers and Related Workers | 3320 | 19190 | 22510 | 2950 | 18270 | 21220 |
| Total | 52810 | 118930 | 171740 | 57470 | 108670 | 166140 |
| | | | | | | |
| **Over two years** | | | | | | |
| 1 Managers and Administrators | 50 | 60 | 100 | 300 | 150 | 440 |
| 2 Professionals | 50 | 600 | 640 | 20 | 600 | 620 |
| 3 Associate Professionals | 2400 | 1510 | 3910 | 2890 | 2150 | 5040 |
| 4 Tradespersons and Related Workers | 3410 | 40250 | 43660 | 3770 | 43710 | 47490 |
| 41 Mechanical and Fabrication Engineering | 830 | 4580 | 5410 | 870 | 5190 | 6070 |
| 42 Automotive | 460 | 6460 | 6910 | 580 | 6960 | 7540 |
| 43 Electrical and Electronics | 300 | 5210 | 5510 | 360 | 5620 | 5980 |
| 44 Construction | 380 | 10890 | 11270 | 460 | 12930 | 13400 |
| 45 Food | 510 | 5560 | 6070 | 520 | 5040 | 5560 |
| 46 Skilled Agricultural and Horticultural Workers | 280 | 1750 | 2030 | 350 | 1700 | 2050 |
| 49 Other Tradespersons and Related Workers | 470 | 5750 | 6220 | 530 | 6220 | 6740 |
| 5 Advanced Clerical and Service Workers | 810 | 810 | 1620 | 240 | 940 | 1180 |
| 6 Intermediate Clerical, Sales and Service Workers | 5530 | 22020 | 27550 | 9050 | 27010 | 36060 |
| 7 Intermediate Production and Transport Workers | 4340 | 2230 | 6580 | 3420 | 2890 | 6310 |
| 8 Elementary Clerical, Sales and Service Workers | 610 | 3590 | 4200 | 1060 | 6430 | 7490 |
| 9 Labourers and Related Workers | 1980 | 4790 | 6770 | 3890 | 8540 | 12420 |
| Total | 19170 | 75850 | 95020 | 24640 | 92410 | 117050 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **All Contracts** | | | | | | |
| 1 Managers and Administrators | 740 | 520 | 1260 | 2340 | 560 | 2900 |
| 2 Professionals | 230 | 1690 | 1930 | 200 | 1770 | 1960 |
| 3 Associate Professionals | 13130 | 10330 | 23460 | 14310 | 11270 | 25580 |
| 4 Tradespersons and Related Workers | 5860 | 48950 | 54810 | 5000 | 49770 | 54770 |
| 41 Mechanical and Fabrication Engineering | 930 | 5130 | 6060 | 930 | 5570 | 6490 |
| 42 Automotive | 560 | 7230 | 7790 | 640 | 7410 | 8050 |
| 43 Electrical and Electronics | 360 | 5860 | 6220 | 400 | 5940 | 6340 |
| 44 Construction | 460 | 12250 | 12710 | 510 | 13790 | 14300 |
| 45 Food | 1620 | 7890 | 9510 | 890 | 6540 | 7430 |
| 46 Skilled Agricultural and Horticultural Workers | 890 | 2580 | 3470 | 770 | 2550 | 3320 |
| 49 Other Tradespersons and Related Workers | 840 | 7910 | 8750 | 750 | 7900 | 8650 |
| 5 Advanced Clerical and Service Workers | 2370 | 5060 | 7430 | 1830 | 4180 | 6010 |
| 6 Intermediate Clerical, Sales and Service Workers | 20850 | 76070 | 96910 | 28420 | 74170 | 102590 |
| 7 Intermediate Production and Transport Workers | 20230 | 12900 | 33120 | 18370 | 14350 | 32720 |
| 8 Elementary Clerical, Sales and Service Workers | 3280 | 15290 | 18560 | 4810 | 18220 | 23020 |
| 9 Labourers and Related Workers | 5300 | 23980 | 29280 | 6840 | 26800 | 33640 |
| Total | 71980 | 194780 | 266760 | 82110 | 201080 | 283190 |

* An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

**Table 1.3: Apprentice and trainee commencements, 1 January to 31 December, by Existing Worker* status, Duration and Full-time status**

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | *Existing Worker* | *Other* | *Total* | *Existing Worker* | *Other* | *Total* |
| **Two years and under** | | | | | | |
| Full-time | 49100 | 89590 | 138690 | 55180 | 84670 | 139850 |
| Part-time | 3690 | 29120 | 32810 | 2290 | 23720 | 26010 |
| Unknown | 10 | 220 | 230 | (a) | 280 | 280 |
| Total | 52810 | 118930 | 171740 | 57470 | 108670 | 166140 |
| **Over two years** | | | | | | |
| Full-time | 10540 | 43350 | 53890 | 11880 | 50110 | 61990 |
| Part-time | 8630 | 32500 | 41130 | 12770 | 42290 | 55060 |
| Unknown | 0 | (a) | (a) | 0 | (a) | (a) |
| Total | 19170 | 75850 | 95020 | 24640 | 92410 | 117050 |
| **All contracts** | | | | | | |
| Full-time | 59640 | 132940 | 192580 | 67060 | 134780 | 201840 |
| Part-time | 12320 | 61620 | 73940 | 15060 | 66020 | 81070 |
| Unknown | 10 | 230 | 240 | (a) | 280 | 290 |
| Total | 71980 | 194780 | 266760 | 82110 | 201080 | 283190 |

* An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

**Table 1.4: Apprentice and trainee commencements, 1 January to 31 December, by Existing Worker* status, Duration and ANTA Industry Area**

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | *Existing Worker* | *Other* | *Total* | *Existing Worker* | *Other* | *Total* |
| **Two years and under** | | | | | | |
| 1 - Arts Entertainment Sport & Recreation | 160 | 1650 | 1810 | 170 | 2170 | 2340 |
| 2 - Automotive | 310 | 3750 | 4060 | 190 | 2760 | 2950 |
| 3 - Building & Construction | 220 | 2220 | 2440 | 110 | 1750 | 1860 |
| 4 - Community Services Health & Education | 1920 | 9300 | 11220 | 2560 | 8420 | 10980 |
| 5 - Finance Banking & Insurance | 1090 | 5950 | 7030 | 1310 | 5340 | 6650 |
| 6 - Food Processing | 1480 | 7160 | 8640 | 750 | 7080 | 7830 |
| 7 - TCF & Furnishings | 940 | 1580 | 2510 | 440 | 1450 | 1890 |
| 8 - Communications | 30 | 320 | 340 | 10 | 240 | 250 |
| 9 - Engineering & Mining | 350 | 2660 | 3010 | 250 | 2350 | 2600 |
| 10 - Primary Industry | 1500 | 5950 | 7440 | 1560 | 5310 | 6870 |
| 11 - Process Manufacturing | 410 | 440 | 850 | 1110 | 540 | 1650 |
| 12 - Sales & Personal Services | 11490 | 26830 | 38310 | 13290 | 23310 | 36600 |
| 13 - Tourism & Hospitality | 3100 | 10950 | 14040 | 1940 | 8840 | 10780 |
| 14 - Transport & Storage | 15330 | 8670 | 24000 | 12050 | 9340 | 21390 |
| 15 - Utilities | 150 | 1040 | 1180 | 180 | 670 | 850 |
| 16 - Business & Clerical | 9550 | 24480 | 34040 | 16140 | 23780 | 39920 |
| 17 - Computing | 4030 | 2000 | 6030 | 3170 | 1420 | 4600 |
| 18 - Science Technical & Training | 770 | 4000 | 4760 | 2240 | 3900 | 6150 |
| Total | 52810 | 118930 | 171740 | 57470 | 108670 | 166140 |
| **Over two years** | | | | | | |
| 1 - Arts Entertainment Sport & Recreation | 60 | 410 | 470 | 130 | 520 | 650 |
| 2 - Automotive | 800 | 7300 | 8100 | 1170 | 8030 | 9210 |
| 3 - Building & Construction | 2490 | 11450 | 13940 | 1330 | 13590 | 14920 |
| 4 - Community Services Health & Education | 1280 | 3420 | 4690 | 2480 | 5030 | 7520 |
| 5 - Finance Banking & Insurance | 440 | 1880 | 2310 | 210 | 2190 | 2400 |
| 6 - Food Processing | 450 | 2930 | 3370 | 470 | 2610 | 3080 |
| 7 - TCF & Furnishings | 340 | 1670 | 2010 | 520 | 1890 | 2400 |
| 8 - Communications | 140 | 400 | 550 | 110 | 440 | 560 |
| 9 - Engineering & Mining | 980 | 5020 | 6000 | 1110 | 5730 | 6840 |
| 10 - Primary Industry | 380 | 2390 | 2760 | 470 | 2540 | 3010 |
| 11 - Process Manufacturing | 530 | 280 | 810 | 810 | 420 | 1220 |
| 12 - Sales & Personal Services | 3630 | 17380 | 21020 | 5110 | 19990 | 25100 |
| 13 - Tourism & Hospitality | 2630 | 9100 | 11730 | 3770 | 13070 | 16840 |
| 14 - Transport & Storage | 1740 | 1260 | 3000 | 1700 | 1770 | 3470 |
| 15 - Utilities | 450 | 5240 | 5680 | 380 | 5680 | 6050 |
| 16 - Business & Clerical | 1780 | 3000 | 4780 | 2950 | 3460 | 6410 |
| 17 - Computing | 680 | 340 | 1020 | 640 | 460 | 1100 |
| 18 - Science Technical & Training | 370 | 2400 | 2770 | 1290 | 4990 | 6290 |
| Total | 19170 | 75850 | 95020 | 24640 | 92410 | 117050 |

| **All contracts** | | | | | | |
|---|---|---|---|---|---|---|
| 1 - Arts Entertainment Sport & Recreation | 220 | 2060 | 2280 | 300 | 2690 | 2990 |
| 2 - Automotive | 1110 | 11050 | 12160 | 1360 | 10790 | 12150 |
| 3 - Building & Construction | 2710 | 13670 | 16380 | 1440 | 15340 | 16780 |
| 4 - Community Services Health & Education | 3200 | 12710 | 15910 | 5040 | 13460 | 18490 |
| 5 - Finance Banking & Insurance | 1520 | 7820 | 9350 | 1510 | 7530 | 9040 |
| 6 - Food Processing | 1930 | 10090 | 12020 | 1220 | 9690 | 10910 |
| 7 - TCF & Furnishings | 1270 | 3250 | 4520 | 960 | 3340 | 4290 |
| 8 - Communications | 170 | 720 | 890 | 120 | 680 | 800 |
| 9 - Engineering & Mining | 1340 | 7680 | 9010 | 1360 | 8090 | 9450 |
| 10 - Primary Industry | 1870 | 8330 | 10200 | 2030 | 7850 | 9880 |
| 11 - Process Manufacturing | 940 | 730 | 1660 | 1920 | 950 | 2870 |
| 12 - Sales & Personal Services | 15120 | 44210 | 59330 | 18400 | 43300 | 61700 |
| 13 - Tourism & Hospitality | 5730 | 20050 | 25770 | 5710 | 21900 | 27610 |
| 14 - Transport & Storage | 17070 | 9930 | 27000 | 13750 | 11120 | 24860 |
| 15 - Utilities | 590 | 6280 | 6870 | 560 | 6340 | 6900 |
| 16 - Business & Clerical | 11340 | 27480 | 38820 | 19090 | 27240 | 46330 |
| 17 - Computing | 4710 | 2340 | 7050 | 3820 | 1880 | 5700 |
| 18 - Science Technical & Training | 1130 | 6400 | 7530 | 3540 | 8900 | 12430 |
| Total | 71980 | 194780 | 266760 | 82110 | 201080 | 283190 |

**Due to confidentiality reasons (a) represents figures 1 to 9 inclusive**
**Due to rounding some figures may not sum**

* An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

**Table 1.5: Apprentice and trainee commencements, 1 January to 31 December, by Highest School Level completed and Duration for Existing Workers***

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| *Two years and under* | *Year 12* | *Other* | *Total* | *Year 12* | *Other* | *Total* |
| 19 years and under | 2300 | 2550 | 4860 | 2130 | 2130 | 4260 |
| 20-24 | 4860 | 2670 | 7530 | 5140 | 2590 | 7730 |
| 25 to 44 | 10260 | 16980 | 27240 | 12530 | 17390 | 29930 |
| 45 years and over | 2850 | 10340 | 13190 | 3980 | 11580 | 15560 |
| Total | 20270 | 32540 | 52810 | 23780 | 33690 | 57470 |

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| *Over two years* | *Year 12* | *Other* | *Total* | *Year 12* | *Other* | *Total* |
| 19 years and under | 1030 | 1110 | 2140 | 1250 | 1330 | 2570 |
| 20-24 | 1680 | 860 | 2540 | 1930 | 1020 | 2950 |
| 25 to 44 | 3090 | 6650 | 9730 | 4330 | 7900 | 12230 |
| 45 years and over | 880 | 3870 | 4750 | 1680 | 5210 | 6890 |
| Total | 6680 | 12490 | 19170 | 9190 | 15450 | 24640 |

| | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| *All contracts* | *Year 12* | *Other* | *Total* | *Year 12* | *Other* | *Total* |
| 19 years and under | 3330 | 3660 | 7000 | 3380 | 3460 | 6830 |
| 20-24 | 6540 | 3530 | 10070 | 7070 | 3610 | 10680 |
| 25 to 44 | 13340 | 23630 | 36970 | 16870 | 25290 | 42160 |
| 45 years and over | 3740 | 14210 | 17950 | 5660 | 16780 | 22450 |
| Total | 26950 | 45030 | 71980 | 32970 | 49140 | 82110 |

* An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

# In training

Information in this section is derived from apprenticeships and traineeships in training data calculated as at 31 December 2003, from collection 38.

In 2003, 43.0% of all active (in-training) contracts had a duration of two years or less. This proportion has remained fairly constant since 2000, when the proportion was 45.6%.

## Table 2.1

- The proportions of male and female apprentices and trainees in-training in shorter duration contracts has remained constant since 2000 at around the fairly even proportions of 54% and 46% respectively.
- In contrast, the proportions of male and female apprentices and trainees in-training in contracts with a duration of greater than two years has changed over the last four years. Males continue to dominate, though the proportions have decreased slightly. In this cohort in 2000, there were 79.5% males and 20.5% females. By 2003, these proportions were 62.2% and 30.8% respectively.

## Table 2.2

- In 2003, apprentices and trainees in-training in shorter duration contracts dominate in all occupational areas, with the exception of the Tradespersons and Related Workers occupational group where they represent only 7.1%.
- The most marked proportional differences include:
    - the Managers and Administrators occupational group where 83.2% of all contracts have a duration of two years or less
    - the Associate Professionals occupational group where 75.9% of all contracts have a duration of two years or less and
    - the Intermediate Production and Transport Workers occupational group where 70.0% of all contracts have a duration of two years or less
- When looking only at shorter duration contracts significant proportional differences from 2000 to 2003 were evident in:
    - the Associate Professionals occupational group, with an increase in proportion from 5.9% in 2000 to 14.5% in 2003,
    - the Intermediate Production and Transport Workers occupational group, with an increase in proportion from 15.1% in 2000 to 20.3% in 2003,
    - the Tradespersons and Related Workers occupational group with a decrease in proportion from 12.4% in 2000 to 5.6% in 2003 and
    - the Intermediate Clerical, Sales and Service Workers occupational group with a decrease in proportion from 40.7% in 2000 to 36.7% in 2003.

## Table 2.3

- The proportion of contracts with a duration of two years or less, being undertaken on a full-time basis has changed little over the past four years, with 81.9% in 2000 and 86.4% in 2003. Comparable proportions for shorter duration contracts being undertaken on a part-time basis were 18.1% and 13.6% respectively.
- This is in contrast with the proportion of contracts with a duration of more than two years, where the proportion of those being undertaken on a full-time basis was 84.2% in 2000, declining to 67.5% in 2003. Correspondingly, the proportion of contracts with a duration of more than two years, being undertaken on a part-time basis went from 15.8% in 2000 to 32.5% in 2003.

## Table 2.4

- In 2003, shorter duration contracts dominated in the following ANTA Industry Areas (compared with longer duration contracts):
    - Arts Entertainment Sport & Recreation (63.4% compared with 36.6%)
    - Transport & Storage (78.8% compared with 21.2%)
    - Business & Clerical (80.9% compared with 19.1%) and
    - Computing (81.2% compared with 18.8%)
- In the same year, longer duration contracts dominated in the following ANTA Industry Areas (compared with shorter duration contracts):
    - Automotive (90.2% compared with 9.8%)
    - TCF & Furnishings (73.5% compared with 26.5%)
    - Communications (89.5% compared with 10.5%)
    - Engineering and Mining (88.8% compared with 11.2%)
    - Tourism & Hospitality (69.8% compared with 30.2%) and
    - Utilities (94.5% compared with 5.5%)

## Tables 2.5, 2.6 and 2.7

- In 2003, Apprentices and Trainees had expanded into all AQF levels and occupation groupings and industry areas, and so too had apprenticeships and traineeships of shorter duration, with the latter dominating at all AQF levels except AQF III and in all occupation areas except trades and related occupations. By industry area the numbers of shorter duration compared to longer duration vary considerably.

## Table 2.8

- In 2003, Existing Workers made up 30% of all apprenticeships and traineeships and 44% of all shorter duration apprenticeships and traineeships.

**Table 2.1: Number of apprentices/trainees in-training by sex, contract duration, as at 31 December 2000-2003**

**Based on December quarter estimates 2003**

| | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|
| | *Total* | *Total* | *Total* | *Total* |
| **2 years and under** | | | | |
| Male | 72,930 | 81,760 | 94,760 | 95,260 |
| Female | 61,600 | 69,640 | 78,520 | 79,800 |
| Unknown | 0 | 0 | 0 | (a) |
| Total | 134,530 | 151,390 | 173,270 | 175,060 |
| | | | | |
| **Over 2 years** | | | | |
| Male | 127,550 | 133,110 | 142,410 | 160,470 |
| Female | 32,820 | 40,630 | 53,410 | 71,320 |
| Unknown | 0 | 0 | 0 | 0 |
| Total | 160,360 | 173,740 | 195,810 | 231,790 |
| | | | | |
| **All contracts** | | | | |
| Male | 200,480 | 214,870 | 237,170 | 255,730 |
| Female | 94,410 | 110,270 | 131,920 | 151,120 |
| Unknown | 0 | 0 | 0 | (a) |
| Total | 294,890 | 325,140 | 369,090 | 406,850 |

**Table 2.2: Number of apprentices/trainees in training by contract duration and industry (ASCO), as at 31 December 2000-2003**

**Based on December quarter estimates 2003**

| | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|
| | *Total* | *Total* | *Total* | *Total* |
| **2 years and under** | | | | |
| 1 Managers and Administrators | 940 | 630 | 1,070 | 2,280 |
| 2 Professionals | 1,430 | 1,360 | 1,350 | 1,470 |
| 3 Associate Professionals | 7,970 | 10,640 | 19,020 | 25,360 |
| 4 Tradespersons and Related Workers | 16,630 | 16,910 | 16,650 | 9,810 |
| 41 Mechanical and Fabrication Engineering Tradespersons | 1,270 | 1,170 | 1,040 | 500 |
| 42 Automotive Tradespersons | 1,800 | 1,660 | 1,640 | 860 |
| 43 Electrical and Electronics Tradespersons | 1,240 | 1,140 | 1,140 | 650 |
| 44 Construction Tradespersons | 2,320 | 2,510 | 2,490 | 1,260 |
| 45 Food Tradespersons | 5,330 | 5,540 | 5,090 | 2,870 |
| 46 Skilled Agricultural and Horticultural Workers | 1,020 | 1,470 | 1,660 | 1,410 |
| 49 Other Tradespersons and Related Workers | 3,530 | 3,370 | 3,530 | 2,200 |
| 5 Advanced Clerical and Service Workers | 1,930 | 6,890 | 5,860 | 5,090 |
| 6 Intermediate Clerical, Sales and Service Workers | 54,790 | 60,640 | 65,930 | 64,230 |
| 7 Intermediate Production and Transport Workers | 20,310 | 26,040 | 31,830 | 35,610 |
| 8 Elementary Clerical, Sales and Service Workers | 13,630 | 11,300 | 12,240 | 13,190 |
| 9 Labourers and Related Workers | 16,910 | 17,000 | 19,320 | 18,030 |
| Total | 134,530 | 151,390 | 173,270 | 175,060 |
| **Over 2 years** | | | | |
| 1 Managers and Administrators | 210 | 170 | 170 | 460 |
| 2 Professionals | 450 | 690 | 1,010 | 1,260 |
| 3 Associate Professionals | 2,130 | 2,850 | 5,350 | 8,050 |
| 4 Tradespersons and Related Workers | 117,600 | 114,330 | 118,210 | 128,710 |
| 41 Mechanical and Fabrication Engineering Tradespersons | 15,860 | 14,560 | 14,700 | 16,410 |
| 42 Automotive Tradespersons | 22,070 | 21,190 | 21,070 | 22,260 |
| 43 Electrical and Electronics Tradespersons | 15,980 | 15,810 | 16,400 | 17,740 |
| 44 Construction Tradespersons | 27,810 | 26,940 | 29,050 | 32,980 |
| 45 Food Tradespersons | 13,670 | 13,760 | 14,450 | 15,480 |
| 46 Skilled Agricultural and Horticultural Workers | 4,720 | 4,820 | 4,740 | 4,750 |
| 49 Other Tradespersons and Related Workers | 17,330 | 16,990 | 17,370 | 18,560 |
| 5 Advanced Clerical and Service Workers | 730 | 1,690 | 2,850 | 2,940 |
| 6 Intermediate Clerical, Sales and Service Workers | 17,580 | 26,200 | 36,050 | 49,490 |
| 7 Intermediate Production and Transport Workers | 9,860 | 14,060 | 15,180 | 15,250 |
| 8 Elementary Clerical, Sales and Service Workers | 3,170 | 3,230 | 5,150 | 8,590 |
| 9 Labourers and Related Workers | 8,630 | 10,530 | 11,860 | 17,040 |
| Total | 160,360 | 173,740 | 195,810 | 231,790 |

| | | | | |
|---|---|---|---|---|
| **All contracts** | | | | |
| 1 Managers and Administrators | 1,150 | 790 | 1,240 | 2,740 |
| 2 Professionals | 1,880 | 2,060 | 2,360 | 2,740 |
| 3 Associate Professionals | 10,100 | 13,490 | 24,370 | 33,410 |
| 4 Tradespersons and Related Workers | 134,230 | 131,240 | 134,860 | 138,520 |
| 41 Mechanical and Fabrication Engineering Tradespersons | 17,130 | 15,730 | 15,730 | 16,910 |
| 42 Automotive Tradespersons | 23,870 | 22,850 | 22,710 | 23,110 |
| 43 Electrical and Electronics Tradespersons | 17,220 | 16,960 | 17,540 | 18,390 |
| 44 Construction Tradespersons | 30,130 | 29,450 | 31,530 | 34,240 |
| 45 Food Tradespersons | 19,000 | 19,300 | 19,540 | 18,350 |
| 46 Skilled Agricultural and Horticultural Workers | 5,740 | 6,280 | 6,400 | 6,150 |
| 49 Other Tradespersons and Related Workers | 20,860 | 20,360 | 20,900 | 20,770 |
| 5 Advanced Clerical and Service Workers | 2,660 | 8,580 | 8,710 | 8,020 |
| 6 Intermediate Clerical, Sales and Service Workers | 72,370 | 86,840 | 101,980 | 113,720 |
| 7 Intermediate Production and Transport Workers | 30,170 | 40,100 | 47,010 | 50,860 |
| 8 Elementary Clerical, Sales and Service Workers | 16,810 | 14,520 | 17,390 | 21,770 |
| 9 Labourers and Related Workers | 25,540 | 27,530 | 31,180 | 35,070 |
| Total | 294,890 | 325,140 | 369,090 | 406,850 |

**Table 2.3: Number of apprentices/trainees in-training by contract duration and full-time status, as at 31 December 2000-2003**

**Based on December quarter estimates 2003**

| | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|
| **2 years and under** | | | | |
| Full-time | 110,220 | 120,990 | 141,630 | 151,210 |
| Part-time | 24,230 | 30,300 | 31,530 | 23,690 |
| Unknown | 80 | 100 | 120 | 160 |
| Total | 134,530 | 151,390 | 173,270 | 175,060 |
| **Over 2 years** | | | | |
| Full-time | 135,060 | 137,670 | 143,040 | 156,540 |
| Part-time | 25,290 | 36,050 | 52,750 | 75,220 |
| Unknown | 20 | 20 | 20 | 30 |
| Total | 160,360 | 173,740 | 195,810 | 231,790 |
| **All contracts** | | | | |
| Full-time | 245,270 | 258,660 | 284,670 | 307,750 |
| Part-time | 49,520 | 66,350 | 84,280 | 98,910 |
| Unknown | 100 | 120 | 140 | 190 |
| Total | 294,890 | 325,140 | 369,090 | 406,850 |

**Table 2.4: Number of apprentices/trainees in-training by contract duration and ANTA industry groups, as at 31 December 2000-2003**

**Based on December quarter estimates 2003**

| | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|
| | *Total* | *Total* | *Total* | *Total* |
| **2 years and under** | | | | |
| 1 - Arts Entertainment Sport & Recreation | 1,400 | 1,330 | 1,640 | 1,870 |
| 2 - Automotive | 3,640 | 3,730 | 4,190 | 2,680 |
| 3 - Building & Construction | 3,240 | 3,350 | 3,260 | 2,030 |
| 4 - Community Services Health & Education | 9,780 | 10,450 | 11,180 | 10,820 |
| 5 - Finance Banking & Insurance | 5,740 | 5,120 | 5,910 | 5,610 |
| 6 - Food Processing | 8,790 | 7,250 | 7,490 | 6,340 |
| 7 - TCF & Furnishings | 2,200 | 1,920 | 2,630 | 2,200 |
| 8 - Communications | 310 | 300 | 320 | 210 |
| 9 - Engineering & Mining | 2,920 | 3,290 | 3,130 | 2,330 |
| 10 - Primary Industry | 5,010 | 5,710 | 6,780 | 6,710 |
| 11 - Process Manufacturing | 600 | 930 | 1,140 | 1,730 |
| 12 - Sales & Personal Services | 30,830 | 36,080 | 38,320 | 37,230 |
| 13 - Tourism & Hospitality | 13,050 | 14,480 | 15,030 | 11,260 |
| 14 - Transport & Storage | 18,150 | 23,650 | 29,410 | 30,870 |
| 15 - Utilities | 1,770 | 1,570 | 1,580 | 1,060 |
| 16 - Business & Clerical | 22,540 | 26,310 | 31,370 | 40,170 |
| 17 - Computing | 1,340 | 1,880 | 5,560 | 6,190 |
| 18 - Science Technical & Training | 3,230 | 4,050 | 4,360 | 5,760 |
| Total | 134,530 | 151,390 | 173,270 | 175,060 |
| | | | | |
| **Over 2 years** | | | | |
| 1 - Arts Entertainment Sport & Recreation | 530 | 540 | 770 | 1,080 |
| 2 - Automotive | 22,680 | 22,440 | 22,780 | 24,620 |
| 3 - Building & Construction | 30,490 | 31,240 | 34,670 | 38,130 |
| 4 - Community Services Health & Education | 3,670 | 4,890 | 6,960 | 10,460 |
| 5 - Finance Banking & Insurance | 2,830 | 2,720 | 3,230 | 3,910 |
| 6 - Food Processing | 6,930 | 7,290 | 7,600 | 7,860 |
| 7 - TCF & Furnishings | 5,430 | 5,290 | 5,490 | 6,110 |
| 8 - Communications | 2,170 | 1,980 | 1,880 | 1,830 |
| 9 - Engineering & Mining | 17,090 | 16,270 | 16,510 | 18,560 |
| 10 - Primary Industry | 5,640 | 5,830 | 5,910 | 6,250 |
| 11 - Process Manufacturing | 790 | 1,110 | 1,560 | 2,100 |
| 12 - Sales & Personal Services | 18,930 | 24,410 | 31,510 | 40,070 |
| 13 - Tourism & Hospitality | 15,660 | 17,560 | 20,480 | 25,950 |
| 14 - Transport & Storage | 6,790 | 9,380 | 8,560 | 8,320 |
| 15 - Utilities | 16,110 | 16,080 | 16,770 | 18,130 |
| 16 - Business & Clerical | 2,020 | 3,290 | 5,970 | 9,500 |
| 17 - Computing | 180 | 270 | 1,070 | 1,430 |
| 18 - Science Technical & Training | 2,430 | 3,170 | 4,120 | 7,490 |
| Total | 160,360 | 173,740 | 195,810 | 231,790 |

| **All contracts** | | | | |
|---|---|---|---|---|
| 1 - Arts Entertainment Sport & Recreation | 1,930 | 1,870 | 2,410 | 2,950 |
| 2 - Automotive | 26,320 | 26,170 | 26,970 | 27,300 |
| 3 - Building & Construction | 33,730 | 34,580 | 37,930 | 40,160 |
| 4 - Community Services Health & Education | 13,460 | 15,340 | 18,140 | 21,280 |
| 5 - Finance Banking & Insurance | 8,570 | 7,840 | 9,140 | 9,520 |
| 6 - Food Processing | 15,720 | 14,540 | 15,090 | 14,190 |
| 7 - TCF & Furnishings | 7,620 | 7,220 | 8,130 | 8,300 |
| 8 - Communications | 2,490 | 2,280 | 2,200 | 2,050 |
| 9 - Engineering & Mining | 20,010 | 19,560 | 19,640 | 20,890 |
| 10 - Primary Industry | 10,640 | 11,540 | 12,690 | 12,960 |
| 11 - Process Manufacturing | 1,390 | 2,040 | 2,700 | 3,830 |
| 12 - Sales & Personal Services | 49,760 | 60,480 | 69,820 | 77,300 |
| 13 - Tourism & Hospitality | 28,710 | 32,040 | 35,500 | 37,200 |
| 14 - Transport & Storage | 24,940 | 33,030 | 37,960 | 39,190 |
| 15 - Utilities | 17,880 | 17,650 | 18,350 | 19,190 |
| 16 - Business & Clerical | 24,570 | 29,600 | 37,340 | 49,670 |
| 17 - Computing | 1,510 | 2,150 | 6,630 | 7,620 |
| 18 - Science Technical & Training | 5,660 | 7,220 | 8,470 | 13,250 |
| Total | 294,890 | 325,140 | 369,090 | 406,850 |

**Table 2.5: Apprentices and trainees in training as at 31 December 2003 by Expected Duration and Qualification Level (%)**

| | Certificate I | Certificate II | Certificate III | Certificate IV | Diploma | Advanced Diploma | Total |
|---|---|---|---|---|---|---|---|
| Up to 1 year | 92.8 | 35.9 | 5.3 | 4.0 | 5.4 | 0.0 | 10.0 |
| Over 1 and up to 2 years | 5.3 | 28.4 | 31.6 | 54.6 | 13.7 | 0.0 | 33.0 |
| Over 2 and up to 3 years | 1.9 | 29.3 | 23.9 | 28.6 | 17.2 | 16.7 | 25.1 |
| Over 3 and up to 4 years | 0.0 | 5.6 | 37.1 | 11.0 | 38.1 | 70.2 | 30.0 |
| Over 4 years | 0.0 | 0.7 | 2.0 | 1.8 | 25.6 | 13.1 | 1.9 |
| Training duration | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | 260 | 62680 | 307570 | 35080 | 1180 | 80 | 406850 |

Source: NCVER Apprenticeship collection, December 2003, collection 38

**Table 2.6: Apprentices and Trainees in training as at 31 December 2003 by ASCO and by Expected Duration (%)**

| Occupation | 2 years and under | Over 2 years | Total |
|---|---|---|---|
| 1 Managers and Administrators | 83.2 | 16.8 | 100.0 |
| 2 Professionals | 53.9 | 46.1 | 100.0 |
| 3 Associate Professionals | 75.9 | 24.1 | 100.0 |
| 4 Tradespersons and Related Workers | 7.1 | 92.9 | 100.0 |
| 5 Advanced Clerical and Service Workers | 63.4 | 36.6 | 100.0 |
| 6 Intermediate Clerical, Sales and Service Workers | 56.5 | 43.5 | 100.0 |
| 7 Intermediate Production and Transport Workers | 70.0 | 30.0 | 100.0 |
| 8 Elementary Clerical, Sales and Service Workers | 60.6 | 39.4 | 100.0 |
| 9 Labourers and Related Workers | 51.4 | 48.6 | 100.0 |
| Total | 43.0 | 57.0 | 100.0 |

Source: NCVER Apprenticeship collection, December 2003, collection 38

**Table 2.7: Apprentices and Trainees in training as at 31 December 2003 by ANTA Industry Area and by Expected Duration (%)**

| Industry area | 2 years and under | Over 2 years | Total |
|---|---|---|---|
| 1 - Arts Entertainment Sport & Recreation | 63.3 | 36.7 | 100.0 |
| 2 - Automotive | 9.8 | 90.2 | 100.0 |
| 3 - Building & Construction | 5.0 | 95.0 | 100.0 |
| 4 - Community Services Health & Education | 50.8 | 49.2 | 100.0 |
| 5 - Finance Banking & Insurance | 59.0 | 41.0 | 100.0 |
| 6 - Food Processing | 44.7 | 55.3 | 100.0 |
| 7 - TCF & Furnishings | 26.5 | 73.5 | 100.0 |
| 8 - Communications | 10.5 | 89.5 | 100.0 |
| 9 - Engineering & Mining | 11.1 | 88.9 | 100.0 |
| 10 - Primary Industry | 51.8 | 48.2 | 100.0 |
| 11 - Process Manufacturing | 45.2 | 54.8 | 100.0 |
| 12 - Sales & Personal Services | 48.2 | 51.8 | 100.0 |
| 13 - Tourism & Hospitality | 30.3 | 69.7 | 100.0 |
| 14 - Transport & Storage | 78.8 | 21.2 | 100.0 |
| 15 - Utilities | 5.5 | 94.5 | 100.0 |
| 16 - Business & Clerical | 80.9 | 19.1 | 100.0 |
| 17 - Computing | 81.2 | 18.8 | 100.0 |
| 18 - Science Technical & Training | 43.5 | 56.5 | 100.0 |
| Total | 43.0 | 57.0 | 100.0 |

Source: NCVER Apprenticeship collection, December 2003, collection 38

**Table 2.8: Apprentices and Trainees in training as at 31 December 2003 by ASCO and Existing Worker Status**

| Two years and under | EW | Other | Total |
|---|---|---|---|
| 1 Managers and Administrators | 1,947 | 334 | 2,281 |
| 2 Professionals | 304 | 1,169 | 1,473 |
| 3 Associate Professionals | 16,208 | 9,150 | 25,358 |
| 4 Tradespersons and Related Workers | 2,004 | 7,801 | 9,805 |
| 5 Advanced Clerical and Service Workers | 1,935 | 3,152 | 5,087 |
| 6 Intermediate Clerical, Sales and Service Workers | 22,576 | 41,653 | 64,229 |
| 7 Intermediate Production and Transport Workers | 23,531 | 12,077 | 35,608 |
| 8 Elementary Clerical, Sales and Service Workers | 4,311 | 8,874 | 13,186 |
| 9 Labourers and Related Workers | 3,782 | 14,249 | 18,030 |
| Total | 76,600 | 98,458 | 175,058 |

| Over two years | EW | Other | Total |
|---|---|---|---|
| 1 Managers and Administrators | 284 | 177 | 461 |
| 2 Professionals | 65 | 1,197 | 1,262 |
| 3 Associate Professionals | 4,580 | 3,473 | 8,053 |
| 4 Tradespersons and Related Workers | 10,127 | 118,585 | 128,712 |
| 5 Advanced Clerical and Service Workers | 1,338 | 1,598 | 2,936 |
| 6 Intermediate Clerical, Sales and Service Workers | 13,626 | 35,865 | 49,491 |
| 7 Intermediate Production and Transport Workers | 10,375 | 4,872 | 15,247 |
| 8 Elementary Clerical, Sales and Service Workers | 1,733 | 6,854 | 8,587 |
| 9 Labourers and Related Workers | 6,186 | 10,853 | 17,038 |
| Total | 48,312 | 183,475 | 231,787 |

| All Contracts | EW | Other | Total |
|---|---|---|---|
| 1 Managers and Administrators | 2,231 | 511 | 2,742 |
| 2 Professionals | 369 | 2,366 | 2,735 |
| 3 Associate Professionals | 20,788 | 12,623 | 33,411 |
| 4 Tradespersons and Related Workers | 12,131 | 126,386 | 138,517 |
| 5 Advanced Clerical and Service Workers | 3,273 | 4,750 | 8,022 |
| 6 Intermediate Clerical, Sales and Service Workers | 36,202 | 77,518 | 113,720 |
| 7 Intermediate Production and Transport Workers | 33,906 | 16,949 | 50,855 |
| 8 Elementary Clerical, Sales and Service Workers | 6,045 | 15,728 | 21,773 |
| 9 Labourers and Related Workers | 9,967 | 25,101 | 35,068 |
| Total | 124,912 | 281,933 | 406,845 |

**Note: Existing worker status only collected officially for commencements from 1 January 2002. Accordingly, there will be significant numbers of in-training contracts where the allocation of this status should be viewed with caution.**

# Expired contracts

Information is derived from apprenticeships and traineeships data for 1 January to 31 December 2003, collection number 38.

## Table 3.1

This table relates to apprentices and trainees whose contracts expired in 2002 and 2003[1]. That is, contracts where the apprentice or trainee has passed the expected completion date but for which no final status (completed, cancelled etc.) is known. Information presented in table 3.1 relates only to those contracts which have been identified as expired by state and territory training authorities and may understate the number of contracts actually expired that have not been identified as such.

In 2002:

- there were 19 180 contracts reported as expired, compared to 22 830 in 2003, an increase of 19%. Existing workers undertook 19.9% of all expired contracts, 70% of which were in contracts with a duration of two years or less . This increased to 29.5% in 2003, with 59% in contracts with a duration of two years or less.

  In both 2002 and 2003, the majority of expired contracts with shorter durations were found in the Intermediate Clerical, Sales and Service Workers (43.9% and 37.7% respectively) and the Intermediate Production and Transport Workers (15% and 21.5% respectively) occupational areas. The majority of expired contract with longer durations were found in the Tradespersons and Related Workers (59.9% and 40% respectively) and the Intermediate Clerical, Sales and Service Workers (17.9% and 25.7% respectively) occupational areas.

[1] Only those contracts identified as expired by State and Territory training authorities.

**Table 3.1: Expired contracts by ASCO and Duration by Existing Worker Status***

| Two years and under | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | EW | Other | Total | EW | Other | Total |
| 1 Managers and Administrators | 20 | 60 | 80 | 10 | 70 | 80 |
| 2 Professionals | (a) | 110 | 120 | 20 | 150 | 170 |
| 3 Associate Professionals | 50 | 500 | 550 | 190 | 730 | 920 |
| 4 Tradespersons and Related Workers | 140 | 680 | 820 | 120 | 1010 | 1130 |
| 5 Advanced Clerical and Service Workers | 110 | 330 | 430 | 260 | 430 | 690 |
| 6 Intermediate Clerical, Sales and Service Workers | 1240 | 3280 | 4520 | 1260 | 3960 | 5220 |
| 7 Intermediate Production and Transport Workers | 820 | 720 | 1540 | 1820 | 1160 | 2980 |
| 8 Elementary Clerical, Sales and Service Workers | 200 | 970 | 1170 | 160 | 1000 | 1150 |
| 9 Labourers and Related Workers | 100 | 980 | 1080 | 130 | 1390 | 1520 |
| ASCO | 2670 | 7640 | 10310 | 3970 | 9890 | 13860 |

| Over two years | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | EW | Other | Total | EW | Other | Total |
| 1 Managers and Administrators | 0 | 10 | 10 | 0 | 10 | 10 |
| 2 Professionals | 10 | 40 | 50 | (a) | 60 | 60 |
| 3 Associate Professionals | (a) | 70 | 80 | 60 | 70 | 130 |
| 4 Tradespersons and Related Workers | 140 | 5170 | 5310 | 290 | 3300 | 3590 |
| 5 Advanced Clerical and Service Workers | (a) | 0 | (a) | 230 | 40 | 270 |
| 6 Intermediate Clerical, Sales and Service Workers | 260 | 1330 | 1590 | 580 | 1720 | 2300 |
| 7 Intermediate Production and Transport Workers | 510 | 160 | 670 | 1140 | 290 | 1420 |
| 8 Elementary Clerical, Sales and Service Workers | 60 | 400 | 460 | 30 | 330 | 350 |
| 9 Labourers and Related Workers | 160 | 540 | 700 | 430 | 400 | 830 |
| ASCO | 1150 | 7720 | 8870 | 2760 | 6210 | 8970 |

| All contracts | 2002 | | | 2003 | | |
|---|---|---|---|---|---|---|
| | EW | Other | Total | EW | Other | Total |
| 1 Managers and Administrators | 20 | 80 | 90 | 10 | 80 | 90 |
| 2 Professionals | 20 | 150 | 170 | 30 | 200 | 230 |
| 3 Associate Professionals | 60 | 570 | 630 | 250 | 810 | 1050 |
| 4 Tradespersons and Related Workers | 280 | 5850 | 6130 | 410 | 4310 | 4720 |
| 5 Advanced Clerical and Service Workers | 110 | 330 | 440 | 490 | 470 | 960 |
| 6 Intermediate Clerical, Sales and Service Workers | 1500 | 4610 | 6110 | 1840 | 5680 | 7520 |
| 7 Intermediate Production and Transport Workers | 1330 | 880 | 2210 | 2960 | 1440 | 4400 |
| 8 Elementary Clerical, Sales and Service Workers | 260 | 1370 | 1630 | 190 | 1320 | 1510 |
| 9 Labourers and Related Workers | 260 | 1520 | 1780 | 560 | 1790 | 2360 |
| ASCO | 3820 | 15360 | 19180 | 6730 | 16100 | 22830 |

**Due to confidentiality reasons (a) represents figures 1 to 9 inclusive**

**Due to rounding some figures may not sum**

* An existing worker is defined as an existing or prospective employee who has had an employment relationship with that employer for a full-time equivalent of 3 months or more.

# Completion rates

The information in this section has been derived from the apprentice and trainee contract of training data collection and is based on cohorts of apprenticeships and traineeships who commenced their contract of training between 1995 and 2000, for shorter duration contracts. Completion rates for apprentices and trainees in longer duration contracts cannot be derived for those commencing after 1998 as a number of these contracts have not been completed. The methodology used in the analysis is set out in 'Apprentice and trainee completion rates' (NCVER, forthcoming).

Key points:

- Completion rates for apprentices and trainees who in full-time employment who are in apprenticeships and traineeships of two years or less duration increased from 38 per cent in 1995 to 49 per cent in 2000.
- Completion rates for apprentices and trainees who in part-time employment who are in apprenticeships and traineeships of two years or less duration declined marginally from 42 per cent in 1995 to 39 per cent in 2000. Completion rates for this group peaked at 57 per cent for those apprentices and trainees who commenced in 1997.
- In 2000, completion rates of 60 per cent and over were obtained for apprentices and trainees who are in apprenticeships and traineeships of two years or less duration, employed by a government business enterprise, local government, state government or commonwealth government enterprise.
- In 2000, completion rates of around 45 per cent were obtained for apprentices and trainees who are in apprenticeships and traineeships of two years or less duration, employed in the private sector or by a group training scheme. Completion rates have risen for apprentices and trainees employed by these types of employers over the period 1995 to 2000.
- In 2000, relatively low completion rates were obtained for apprentices and trainees who are in apprenticeships and traineeships of two years or less duration, employed in the construction (27%) and accommodation, cafes and restaurants industry groups (34%).
- In 2000, relatively high completion rates were obtained for apprentices and trainees who are in apprenticeships and traineeships of two years or less duration, employed in the mining (73%) and government, administration and defence industry groups (72%).
- In 2000, relatively low completion rates were obtained for apprentices and trainees who are in apprenticeships and traineeships of two years or less duration, employed in the tradespersons and related workers occupation group (22%), especially in construction tradespersons (14%) and automotive tradespersons occupations (17%).
- In 2000, relatively high completion rates were obtained for apprentices and trainees who are in apprenticeships and traineeships of two years or less duration, employed in managers and administrators (59%) and professionals occupation groups (59%).
- Completion rates increase with age of commencement for apprenticeships and traineeships of two years or less duration. Young people in the 15-24 year age group have considerably lower completion rates than apprentices and trainees in the 25 to 44 year age group. Apprentices and trainees in the 45 to 65 year age group have higher completion rates than younger apprentices and trainees.
- In contrast, completion rates decline with age of commencement for apprenticeships and traineeships of over two years duration. Young people in the 15-24 year age group have considerably higher completion rates than apprentices and trainees in the 25 to 44 year age group. Apprentices and

trainees in the 45 to 65 year age group have lower completion rates than younger apprentices and trainees.

- Completion rates are considerably lower for apprenticeships and traineeships of both shorter (two years and under) and longer (over two years) duration for apprentices and trainees who have not completed year 12.

**Table 4.1: Estimated rates of completion for apprenticeship and traineeship contracts by employer type and duration**

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Two years and under** | | | | | | |
| Private Sector | 35.9 | 41.8 | 44.1 | 46.1 | 44.2 | 45.3 |
| Group Training Scheme | 39.0 | 45.8 | 44.5 | 43.8 | 44.3 | 46.0 |
| Government Business Enterprise | 41.7 | 59.3 | 56.0 | 54.1 | 70.7 | 65.1 |
| Local Government | 56.2 | 54.9 | 54.6 | 60.7 | 70.8 | 64.4 |
| State Government | 70.0 | 72.0 | 65.5 | 62.3 | 74.3 | 71.7 |
| Commonwealth Government | 68.2 | 79.1 | 85.2 | 78.3 | 75.5 | 65.6 |
| Not Elsewhere Classified | 71.7 | 74.6 | 53.4 | 37.5 | 64.4 | 71.3 |
| Total | 38.7 | 44.6 | 45.8 | 46.7 | 46.0 | 46.8 |
| **Over two years** | | | | | | |
| Private Sector | 76.8 | 74.4 | 73.1 | 72.7 | n/a | n/a |
| Group Training Scheme | 83.6 | 82.6 | 81.8 | 77.9 | n/a | n/a |
| Government Business Enterprise | 90.1 | 96.3 | 94.9 | 93.9 | n/a | n/a |
| Local Government | 79.8 | 74.4 | 70.9 | 78.1 | n/a | n/a |
| State Government | 94.5 | 91.1 | 88.4 | 87.6 | n/a | n/a |
| Commonwealth Government | 80.1 | 80.4 | 86.0 | 81.7 | n/a | n/a |
| Not Elsewhere Classified | 77.5 | 75.0 | 81.8 | 64.8 | n/a | n/a |
| Total | 78.5 | 76.0 | 75.0 | 74.1 | n/a | n/a |

* Completion rates are calculated on outcomes of contracts, where contracts have commenced in the year specified

**Table 4.2: Estimated rates of completion for apprenticeship and traineeship contracts by industry sector and duration**

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Two years and under** | n/a | n/a | | | | |
| Agriculture Forestry & Fishing | n/a | n/a | 55.0 | 53.3 | 52.9 | 56.2 |
| Mining | n/a | n/a | 54.8 | 71.5 | 53.2 | 72.7 |
| Manufacturing | n/a | n/a | 52.2 | 49.5 | 45.2 | 45.7 |
| Electricity Gas & Water Supply | n/a | n/a | 44.1 | 50.1 | 44.9 | 50.7 |
| Construction | n/a | n/a | 31.2 | 28.4 | 29.8 | 26.6 |
| Wholesale Trade | n/a | n/a | 50.6 | 48.6 | 50.6 | 52.7 |
| Retail Trade | n/a | n/a | 45.1 | 46.8 | 43.6 | 43.3 |
| Accommodation Cafes & Restaurants | n/a | n/a | 31.5 | 30.5 | 31.8 | 33.9 |
| Transport & Storage | n/a | n/a | 58.0 | 54.0 | 53.6 | 53.9 |
| Communication Services | n/a | n/a | 42.1 | 56.7 | 45.5 | 52.9 |
| Finance & Insurance | n/a | n/a | 64.6 | 55.7 | 61.7 | 53.7 |
| Property & Business Services | n/a | n/a | 44.9 | 47.8 | 47.1 | 48.7 |
| Government Administration & Defence | n/a | n/a | 62.3 | 63.4 | 71.5 | 71.4 |
| Education | n/a | n/a | 61.3 | 56.1 | 55.9 | 56.9 |
| Health & Community Services | n/a | n/a | 67.1 | 63.1 | 63.5 | 59.7 |
| Cultural & Recreational Services | n/a | n/a | 51.7 | 52.0 | 54.7 | 56.6 |
| Personal & Other Services | n/a | n/a | 35.0 | 36.2 | 37.9 | 41.3 |
| Unknown | n/a | n/a | 38.2 | 37.0 | 36.2 | 34.5 |
| Total | n/a | n/a | 45.8 | 46.7 | 46.0 | 46.8 |
| **Over two years** | | | | | | |
| Agriculture Forestry & Fishing | n/a | n/a | 75.5 | 75.8 | n/a | n/a |
| Mining | n/a | n/a | 89.1 | 91.6 | n/a | n/a |
| Manufacturing | n/a | n/a | 80.7 | 79.3 | n/a | n/a |
| Electricity Gas & Water Supply | n/a | n/a | 83.1 | 79.1 | n/a | n/a |
| Construction | n/a | n/a | 75.5 | 73.9 | n/a | n/a |
| Wholesale Trade | n/a | n/a | 82.7 | 77.6 | n/a | n/a |
| Retail Trade | n/a | n/a | 71.9 | 74.0 | n/a | n/a |
| Accommodation Cafes & Restaurants | n/a | n/a | 56.9 | 57.4 | n/a | n/a |
| Transport & Storage | n/a | n/a | 90.2 | 76.7 | n/a | n/a |
| Communication Services | n/a | n/a | 70.4 | 58.0 | n/a | n/a |
| Finance & Insurance | n/a | n/a | 70.7 | 65.6 | n/a | n/a |
| Property & Business Services | n/a | n/a | 81.6 | 76.2 | n/a | n/a |
| Government Administration & Defence | n/a | n/a | 77.5 | 80.9 | n/a | n/a |
| Education | n/a | n/a | 82.7 | 78.7 | n/a | n/a |
| Health & Community Services | n/a | n/a | 78.0 | 71.6 | n/a | n/a |
| Cultural & Recreational Services | n/a | n/a | 74.6 | 73.6 | n/a | n/a |
| Personal & Other Services | n/a | n/a | 73.9 | 73.4 | n/a | n/a |
| Unknown | n/a | n/a | 67.9 | 68.7 | n/a | n/a |
| Total | n/a | n/a | 75.0 | 74.1 | n/a | n/a |

* Completion rates are calculated on outcomes of contracts, where contracts have commenced in the year specified

**Table 4.3: Estimated rates of completion for apprenticeship and traineeship contracts by occupation and duration**

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Two years and under** | | | | | | |
| Managers and Administrators | 57.5 | 59.6 | 60.1 | 62.8 | 63.1 | 58.5 |
| Professionals | 86.0 | 59.3 | 64.3 | 53.9 | 58.4 | 58.9 |
| Associate Professionals | 54.6 | 58.5 | 54.9 | 52.8 | 53.2 | 51.6 |
| Tradespersons and Related Workers | 20.6 | 22.5 | 22.5 | 23.3 | 21.8 | 22.1 |
| Mechanical and Fabrication Engineering Tradespersons | 25.2 | 30.2 | 26.0 | 28.8 | 26.5 | 27.0 |
| Automotive Tradespersons | 20.9 | 21.1 | 21.0 | 22.0 | 19.1 | 17.1 |
| Electrical and Electronics Tradespersons | 27.9 | 30.1 | 25.8 | 25.2 | 22.3 | 21.0 |
| Construction Tradespersons | 18.9 | 22.2 | 21.1 | 15.4 | 13.1 | 13.6 |
| Food Tradespersons | 15.8 | 16.4 | 17.4 | 25.9 | 22.9 | 22.5 |
| Skilled Agricultural and Horticultural Workers | 19.3 | 22.2 | 28.7 | 24.6 | 33.3 | 39.7 |
| Other Tradespersons and Related Workers | 22.7 | 25.1 | 26.6 | 24.4 | 25.0 | 26.6 |
| Advanced Clerical and Service Workers | 64.7 | 57.8 | 61.6 | 50.1 | 67.4 | 54.0 |
| Intermediate Clerical, Sales and Service Workers | 58.2 | 57.0 | 54.6 | 54.0 | 52.5 | 51.9 |
| Intermediate Production and Transport Workers | 54.0 | 54.3 | 51.6 | 53.1 | 55.6 | 53.9 |
| Elementary Clerical, Sales and Service Workers | 57.5 | 53.8 | 49.8 | 54.9 | 50.6 | 53.1 |
| Labourers and Related Workers | 47.3 | 47.1 | 51.3 | 47.9 | 46.6 | 48.5 |
| Total | 38.7 | 44.6 | 45.8 | 46.7 | 46.0 | 46.8 |
| **Over two years** | | | | | | |
| Managers and Administrators | 74.8 | 72.1 | 86.2 | 86.3 | n/a | n/a |
| Professionals | 100.0 | 70.0 | 75.7 | 79.4 | n/a | n/a |
| Associate Professionals | 92.7 | 78.5 | 78.4 | 81.8 | n/a | n/a |
| Tradespersons and Related Workers | 78.5 | 76.2 | 75.3 | 75.2 | n/a | n/a |
| Mechanical and Fabrication Engineering Tradespersons | 86.3 | 84.8 | 82.6 | 81.9 | n/a | n/a |
| Automotive Tradespersons | 78.3 | 72.8 | 74.8 | 77.4 | n/a | n/a |
| Electrical and Electronics Tradespersons | 83.4 | 82.8 | 82.0 | 79.9 | n/a | n/a |
| Construction Tradespersons | 78.2 | 77.3 | 75.4 | 73.3 | n/a | n/a |
| Food Tradespersons | 66.1 | 64.8 | 61.1 | 61.0 | n/a | n/a |
| Skilled Agricultural and Horticultural Workers | 75.5 | 75.5 | 73.6 | 77.8 | n/a | n/a |
| Other Tradespersons and Related Workers | 74.8 | 73.0 | 72.2 | 73.7 | n/a | n/a |
| Advanced Clerical and Service Workers | - | - | - | - | n/a | n/a |
| Intermediate Clerical, Sales and Service Workers | 63.3 | 63.1 | 75.6 | 61.5 | n/a | n/a |
| Intermediate Production and Transport Workers | 69.9 | 69.6 | 62.7 | 69.2 | n/a | n/a |
| Elementary Clerical, Sales and Service Workers | 43.8 | 39.4 | 48.2 | 57.2 | n/a | n/a |
| Labourers and Related Workers | 64.0 | 71.6 | 64.6 | 67.5 | n/a | n/a |
| Total | 78.5 | 76.0 | 75.0 | 74.1 | n/a | n/a |

* Completion rates are calculated on outcomes of contracts, where contracts have commenced in the year specified

**Table 4.4: Estimated rates of completion for apprenticeship and traineeship contracts by full-time or part-time employment status and duration**

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Two years and under** | | | | | | |
| Full time | 37.7 | 43.8 | 45.0 | 46.8 | 47.2 | 48.5 |
| Part time (including School based) | 41.8 | 54.1 | 56.5 | 46.3 | 40.6 | 40.5 |
| Unknown | 57.7 | 55.8 | - | - | 47.5 | 39.0 |
| Total | 38.7 | 44.6 | 45.8 | 46.7 | 46.0 | 46.8 |
| **Over two years** | | | | | | |
| Full time | 78.7 | 77.1 | 75.1 | 75.2 | n/a | n/a |
| Part time (including School based) | 66.0 | 67.1 | 73.5 | 58.1 | n/a | n/a |
| Unknown | 79.8 | 63.1 | 45.0 | 45.0 | n/a | n/a |
| Total | 78.5 | 76.0 | 75.0 | 74.1 | n/a | n/a |

* Completion rates are calculated on outcomes of contracts, where contracts have commenced in the year specified

**Table 4.5: Estimated rates of completion for apprenticeship and traineeship contracts by age at commencement and duration**

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Two years and under** | | | | | | |
| 15 to 24 years of age | 37.6 | 42.8 | 41.8 | 41.9 | 41.4 | 42.8 |
| 25 to 44 years of age | 46.1 | 50.5 | 52.4 | 53.0 | 51.0 | 51.0 |
| 45 to 65 years of age | 56.7 | 57.0 | 63.4 | 60.6 | 59.3 | 57.8 |
| Total | 38.7 | 44.6 | 45.8 | 46.7 | 46.0 | 46.8 |
| **Over two years** | | | | | | |
| 15 to 24 years of age | 78.4 | 76.5 | 75.0 | 74.3 | n/a | n/a |
| 25 to 44 years of age | 79.3 | 67.9 | 74.5 | 71.2 | n/a | n/a |
| 45 to 65 years of age | 78.8 | 62.0 | 80.5 | 66.9 | n/a | n/a |
| Total | 78.5 | 75.8 | 75.0 | 73.8 | n/a | n/a |

* Completion rates are calculated on outcomes of contracts, where contracts have commenced in the year specified

**Table 4.6: Estimated rates of completion for apprenticeship and traineeship contracts by highest school level completed and duration**

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Two years and under** | | | | | | |
| Completed Yr 12 | 46.3 | 52.3 | 50.6 | 50.3 | 49.3 | 50.4 |
| Did not complete Yr 12 | 32.5 | 38.7 | 41.9 | 43.9 | 43.6 | 44.4 |
| Not stated | 41.3 | 45.1 | 49.5 | 50.4 | 44.8 | 36.7 |
| Total | 38.7 | 44.6 | 45.8 | 46.7 | 46.0 | 46.8 |
| **Over two years** | | | | | | |
| Completed Yr 12 | 81.7 | 80.2 | 79.3 | 77.0 | n/a | n/a |
| Did not complete Yr 12 | 76.2 | 73.8 | 72.2 | 71.3 | n/a | n/a |
| Not stated | 77.2 | 63.4 | 69.8 | 78.1 | n/a | n/a |
| Total | 78.5 | 75.8 | 75.0 | 73.8 | n/a | n/a |

* Completion rates are calculated on outcomes of contracts, where contracts have commenced in the year specified

# Characteristics of non-completers

The information in this section has been derived from the apprentice and trainee contact of training data collection and is based on apprenticeships and traineeships which ended in a withdrawal or cancellation within the year specified.

Key points:

- More apprentice and trainee non-completers in apprenticeships and traineeships of two years or less duration are in full-time employment compared to those in contracts of training of more than two years duration.
- About 40 per cent of apprentice and trainee non-completers in apprenticeships and traineeships of two years or less duration are employed in intermediate sales and service worker occupations.
- About 50 per cent of apprentice and trainee non-completers in apprenticeships and traineeships of more than two years duration are employed in tradespersons and related worker occupations.
- Over 80 per cent of apprentice and trainee non-completers in apprenticeships and traineeships of two years or less duration are employed in the private sector and a further 14-15 per cent are employed in group training schemes.
- Over 20 percent are employed in the property and business services industry group and a further 20 per cent of apprentice and trainee non-completers in apprenticeships and traineeships of two years or less duration are employed in the retail trade industry group.

**Table 5.1: Apprentice and trainee non-completers by full-time and part-time employment status and duration**

| | 2000 | 2001 | 2002 |
|---|---|---|---|
| **Two years and under** | | | |
| Full time | 84.1 | 82.8 | 81 |
| Part time including School based | 15.8 | 17.1 | 18.8 |
| Unknown | 0.1 | 0.1 | 0.2 |
| Total | 100 | 100 | 100 |
| **Over two years** | | | |
| Full time | 68.5 | 60.9 | 56.1 |
| Part time including School based | 31.5 | 39.1 | 43.9 |
| Unknown | . | . | . |
| Total | 100 | 100 | 100 |

Source: NCVER, Withdrawals/Cancellations, September 2003 quarter

**Table 5.2: Apprentice and trainee non-completers by occupation and duration**

| Occupation | 2000 | 2001 | 2002 |
|---|---|---|---|
| **Two years and under** | | | |
| Managers and Administrators | 0.6 | 0.5 | 1.1 |
| Professionals | 0.8 | 0.6 | 0.7 |
| Associate Professionals | 4.4 | 5.3 | 5.6 |
| Tradespersons and Related Workers | 17.5 | 16.6 | 17.1 |
| Advanced Clerical and Service Workers | 0.5 | 2.3 | 4.1 |
| Intermediate Clerical, Sales and Service Workers | 40.2 | 39.9 | 37.1 |
| Intermediate Production and Transport Workers | 8.2 | 10.4 | 10.9 |
| Elementary Clerical, Sales and Service Workers | 13.1 | 9.6 | 8.4 |
| Labourers and Related Workers | 14.8 | 14.7 | 15.1 |
| Total | 100 | 100 | 100 |
| **Over two years** | | | |
| Managers and Administrators | 0.2 | 0.2 | 0.2 |
| Professionals | 0.4 | 0.6 | 0.5 |
| Associate Professionals | 0.8 | 1.3 | 2 |
| Tradespersons and Related Workers | 61.9 | 54.6 | 49.3 |
| Advanced Clerical and Service Workers | 0.1 | 0.6 | 1 |
| Intermediate Clerical, Sales and Service Workers | 20.2 | 27.2 | 32.5 |
| Intermediate Production and Transport Workers | 4.8 | 4.7 | 4.4 |
| Elementary Clerical, Sales and Service Workers | 4.6 | 3.9 | 3 |
| Labourers and Related Workers | 7.1 | 6.9 | 7.1 |
| Total | 100 | 100 | 100 |

Source: NCVER, Withdrawals/Cancellations, September 2003 quarter

**Characteristics of non-completers are based on apprenticeships and traineeships which ended in a withdrawal or cancellation within the year specified**

**Table 5.3: Apprentice and trainee non-completers by employer type and duration**

| Employer Type | 2000 | 2001 | 2002 |
|---|---|---|---|
| **Two years and under** | | | |
| Private sector | 80.8 | 83 | 81.9 |
| Group training scheme | 15.4 | 13.3 | 13.6 |
| Government business enterprises | 0.2 | 0.3 | 0.5 |
| Local government | 0.8 | 0.8 | 1.1 |
| State government | 2.4 | 1.9 | 2.2 |
| Commonwealth government | 0.2 | 0.5 | 0.5 |
| Not elsewhere classified | 0.2 | 0.2 | 0.2 |
| Total | 100 | 100 | 100 |
| **Over two years** | | | |
| Private sector | 86.3 | 86 | 86.2 |
| Group training scheme | 12.3 | 11.8 | 11.7 |
| Government business enterprises | 0.1 | 0 | 0.1 |
| Local government | 0.6 | 0.9 | 1.1 |
| State government | 0.6 | 0.6 | 0.6 |
| Commonwealth government | 0.1 | 0.6 | 0.2 |
| Not elsewhere classified | 0.1 | 0.1 | 0.1 |
| Total | 100 | 100 | 100 |

Source: NCVER, Withdrawals/Cancellations, September 2003 quarter

**Characteristics of non-completers are based on apprenticeships and traineeships which ended in a withdrawal or cancellation within the year specified**

**Table 5.4: Apprentice and trainee non-completers by industry and duration**

| Industry | 2000 | 2001 | 2002 |
|---|---|---|---|
| **Two years and under** | | | |
| Agriculture Forestry & Fishing | 1.4 | 1.4 | 1.9 |
| Mining | 0.1 | 0.4 | 0.4 |
| Manufacturing | 12.2 | 11.8 | 11.6 |
| Electricity Gas & Water Supply | 0.3 | 0.3 | 0.3 |
| Construction | 3.5 | 3.4 | 3.7 |
| Wholesale Trade | 1.6 | 1.8 | 1.9 |
| Retail Trade | 20.2 | 20.4 | 21.4 |
| Accommodation Cafes & Restaurants | 10.9 | 10.8 | 9.8 |
| Transport & Storage | 5.3 | 7 | 7.4 |
| Communication Services | 2.9 | 3.8 | 2.4 |
| Finance & Insurance | 2.1 | 2.4 | 2.5 |
| Property & Business Services | 23.7 | 21.5 | 21.4 |
| Government Administration & Defence | 2.1 | 1.9 | 2.3 |
| Education | 2 | 1.7 | 1.7 |
| Health & Community Services | 3.9 | 4.4 | 4.7 |
| Cultural & Recreational Services | 1.6 | 1.7 | 1.3 |
| Personal & Other Services (Q) | 3.9 | 3.5 | 3.7 |
| Unknown | 2.2 | 1.8 | 1.4 |
| Total | 100 | 100 | 100 |
| **Over two years** | | | |
| Agriculture Forestry & Fishing | 1 | 1.2 | 1.4 |
| Mining | 0.1 | 0.1 | 0.1 |
| Manufacturing | 8.8 | 8.8 | 9.1 |
| Electricity Gas & Water Supply | 0.6 | 0.5 | 0.4 |
| Construction | 14.5 | 12.6 | 11.9 |
| Wholesale Trade | 1 | 0.9 | 0.9 |
| Retail Trade | 18 | 21.6 | 24.9 |
| Accommodation Cafes & Restaurants | 12.3 | 12.9 | 12.8 |
| Transport & Storage | 3 | 2.7 | 2.3 |
| Communication Services | 0.6 | 0.6 | 1 |
| Finance & Insurance | 0.4 | 0.6 | 0.7 |
| Property & Business Services | 15.1 | 14.9 | 14.9 |
| Government Administration & Defence | 1.1 | 1.5 | 1.5 |
| Education | 2.1 | 1.9 | 2.1 |
| Health & Community Services | 2.7 | 3.4 | 3.6 |
| Cultural & Recreational Services | 0.9 | 1.4 | 1.2 |
| Personal & Other Services (Q) | 7.5 | 7.3 | 6.9 |
| Unknown | 10.4 | 7.2 | 4.5 |
| Total | 100 | 100 | 100 |

Source: NCVER, Withdrawals/Cancellations, September 2003 quarter

**Characteristics of non-completers are based on apprenticeships and traineeships which ended in a withdrawal or cancellation within the year specified**

# Outcomes

The information in this section is from the 2003 NCVER student outcomes survey. The survey does not provide information on the duration of an apprenticeship or traineeship. Information on outcomes is provided for apprentice and trainee courses at Certificate level I and II, which are typically shorter duration traineeship courses. Comparisons are made with outcomes obtained by apprentices and trainees who studied at all levels.

1. Outcomes for apprentices and trainees who graduated from their course of study, table 6.1.

Key points:

- Fewer apprentices and trainees who graduated from Certificate level I and II courses were employed before their course compared with other apprentices and trainees.
- A higher percentage of graduates from Certificate level I and II courses who had completed year 12 were employed before their course compared with those who had not completed year 12. A higher percentage of apprentices and trainees who had not completed year 12 were not in the labour force before commencing their course compared with apprentices and trainees who had completed year 12.
- Fewer apprentices and trainees who graduated from Certificate level I and II courses are employed after course completion compared to other apprentices and trainees.
- There is a higher rate of employment after completing their course (four percentage points) for apprentices and trainees in lower level courses who had completed year 12 than for apprentices and trainees who did not complete year 12. However, there was a seven percentage point difference in the employment rate of apprentices and trainees who had completed year 12 and those who had not completed year 12 before the apprentices and trainees started their course.
- There was considerable improvement in employment outcomes for apprentices and trainees studying lower level courses after the completion of their course. Thirty-two per cent of apprentices and trainees who had not completed year 12 were either unemployed or not in the labour force before starting their course. Twenty-one per cent were either unemployed or not in the labour force after the completion of their course
- There is a substantially higher rate of employment of graduates who were in an apprenticeship or traineeship while studying, after the completion of their course than for others undertaking lower level qualifications. Before commencing their study 70 per cent of apprentices and trainees in Certificate I and II courses who were an apprentice or trainee were employed compared with 55 per cent who were not in an apprenticeship or traineeship. After the completion of their study 80 per cent of apprentices and trainees in Certificate I and II courses who were an apprentice or trainee were employed compared with 60 per cent who were not in an apprenticeship or traineeship.
- There is little difference in the proportion of graduates who were in their first full time job between those undertaking a lower level qualification and other apprentices and trainees.
- Fewer apprentices and trainees who graduated from Certificate level I and II courses are enrolled in further study after course completion compared to other graduates.
- Fewer apprentices and trainees who graduated from Certificate level I and II courses obtained an increase in earnings after course completion compared to other graduates.
- More apprentices and trainees who graduated from Certificate level I and II courses indicated they did not obtain any benefits from their course after course completion compared to other graduates.

2. Outcomes for apprentices and trainees who withdrew before completing their qualification, Table 6.2.

Key points:

- Employment rates before their course for apprentices and trainees who withdrew from Certificate level I and II courses were comparable to employment rates of other Certificate I and II students who were not in an apprenticeship or traineeship.
- Fewer apprentices and trainees who withdrew from Certificate level I and II courses were employed before their course (56 per cent) compared with apprentices and trainees who were employed before their course (68 per cent) and withdrew from other courses.
- Fewer apprentices and trainees who withdrew from Certificate level I and II courses are employed in the May following their studies (56 per cent) than other apprentices and trainees who withdrew from their course (68 per cent).
- There was little difference in the employment rates before and after study for apprentices and trainees studying lower level courses who withdrew from their course.
- There was little difference in the employment rate in the May after study for those apprentices and trainees in Certificate level I and II courses who completed year 12 and those who did not complete year 12.
- There was little difference in the employment rate in the May after study between those who were in an apprenticeship or traineeship who withdrew from Certificate level I and II courses and those who were not in an apprenticeship or traineeship.
- There is little difference in the proportion of people who withdrew from their course and were in their first full time job between those undertaking a lower level qualification and other apprentices and trainees.
- 31 per cent of apprentices and trainees in Certificate I and II courses who withdrew from their course got a job as a benefit of training.
- About a quarter of apprentices and trainees who withdrew from Certificate level I and II courses obtained an increase in earnings as a benefit of training. This was a similar proportion to apprentices and trainees who withdrew from other courses.
- Less than 10 per cent of respondents who were apprentices and trainees in Certificate level I and II courses who withdrew from their course identified they had obtained a promotion or increased status at work, changed their job, set up their own business or obtained any other benefit from their training. The profile of responses was comparable to the profile of responses for those who withdrew from Certificate level I and II courses and were not in an apprenticeship or traineeship.

3. Graduate satisfaction with course, Table 6.3.

Information on employer satisfaction with apprentices and trainees is not available. Information on course satisfaction can be obtained from responses by apprentices and trainees to the Student Outcomes Survey.

Key points:

- There is no difference in the satisfaction levels of apprentices and trainees who graduated from Certificate level I or II level courses and those who graduated from Certificate III or IV level courses. Only 6 to 7 per cent of apprentices and trainees who responded to the questionnaire were not satisfied with the quality of their course.
- Similarly, there was little difference in the satisfaction levels of apprentices and trainees in Certificate I or II level courses and other graduates from Certificate level I or II courses. Only 7 per cent of apprentices and trainees and 6 per cent of other graduates were dissatisfied with the quality of their Certificate level I or II course.

4. Module Completers satisfaction with course, Table 6.4.

- Table 6.4 shows that those doing apprenticeships and traineeships at Certificate I and II levels are less satisfied with the overall quality of their course than those apprentices/trainees and non-apprentices/trainees at Certificate III and IV levels.
- At Certificate I and II level, 61% of apprentices/trainees agree, contrasted with 71% non-apprentices/trainees who agree, and at Certificate III and IV levels, 74% of apprentices/trainees agree contrasted with 70% of non-apprentices/trainees.

**Table 6.1: Graduate outcomes from courses for apprentices and trainees by level of qualification**

| Outcome | Response to question | Apprentices and trainees | Not apprentice or trainee | Total |
|---|---|---|---|---|
| Labour force status before course | | | | |
| *Certificate 1-2 level* | *Completed Year 12* | | | |
| | Employed | 74 | 61 | 64 |
| | Unemployed | 14 | 17 | 16 |
| | Not in labour force | 10 | 19 | 18 |
| | Not Employed (NFI) | 3 | 3 | 3 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Year 12* | | | |
| | Employed | 67 | 51 | 53 |
| | Unemployed | 15 | 18 | 17 |
| | Not in labour force | 15 | 28 | 26 |
| | Not Employed (NFI) | 2 | 4 | 3 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 70 | 55 | 58 |
| | Unemployed | 15 | 17 | 17 |
| | Not in labour force | 13 | 25 | 22 |
| | Not Employed (NFI) | 3 | 3 | 3 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | *Completed Year 12* | | | |
| | Employed | 78 | 69 | 70 |
| | Unemployed | 12 | 13 | 13 |
| | Not in labour force | 9 | 16 | 15 |
| | Not Employed (NFI) | 1 | 2 | 2 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Year 12* | | | |
| | Employed | 78 | 62 | 66 |
| | Unemployed | 10 | 14 | 13 |
| | Not in labour force | 11 | 21 | 18 |
| | Not Employed (NFI) | 1 | 3 | 2 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 78 | 66 | 68 |
| | Unemployed | 11 | 14 | 13 |
| | Not in labour force | 10 | 18 | 17 |
| | Not Employed (NFI) | 1 | 2 | 2 |
| | Total | 100 | 100 | 100 |

| Labour force status at 30 May 2003 (summary) | | | | |
|---|---|---|---|---|
| *Certificate 1-2* | *Completed Yr 12* | | | |
| | Employed | 82 | 66 | 69 |
| | Unemployed | 9 | 15 | 14 |
| | Not in labour force | 7 | 16 | 14 |
| | Not Employed (NFI) | 2 | 2 | 2 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Yr 12* | | | |
| | Employed | 78 | 56 | 59 |
| | Unemployed | 13 | 20 | 19 |
| | Not in labour force | 6 | 21 | 18 |
| | Not Employed (NFI) | 2 | 3 | 3 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 80 | 60 | 63 |
| | Unemployed | 12 | 18 | 17 |
| | Not in labour force | 6 | 19 | 17 |
| | Not Employed (NFI) | 2 | 3 | 3 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | *Completed Yr 12* | | | |
| | Employed | 88 | 73 | 76 |
| | Unemployed | 5 | 14 | 12 |
| | Not in labour force | 5 | 12 | 10 |
| | Not Employed (NFI) | 1 | 2 | 2 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Yr 12* | | | |
| | Employed | 89 | 67 | 72 |
| | Unemployed | 6 | 15 | 13 |
| | Not in labour force | 3 | 15 | 12 |
| | Not Employed (NFI) | 1 | 3 | 2 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 89 | 70 | 74 |
| | Unemployed | 6 | 15 | 13 |
| | Not in labour force | 4 | 13 | 11 |
| | Not Employed (NFI) | 1 | 2 | 2 |
| | Total | 100 | 100 | 100 |

| | | | | |
|---|---|---|---|---|
| First full-time job at 30 May | | | | |
| *Certificate **1-2 level*** | No | 40 | 23 | 27 |
| | Yes | 60 | 77 | 73 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 43 | 18 | 24 |
| | Yes | 57 | 82 | 76 |
| | Total | 100 | 100 | 100 |
| Enrolled in further study | | | | |
| *Certificate 1-2 level* | No | 48 | 49 | 49 |
| | Yes | 52 | 51 | 51 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 33 | 46 | 43 |
| | Yes | 67 | 54 | 57 |
| | Total | 100 | 100 | 100 |
| Benefits of completing course – Got a job | | | | |
| *Certificate 1-2 level* | No | 63 | 75 | 72 |
| | Yes | 37 | 25 | 28 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 61 | 76 | 72 |
| | Yes | 39 | 24 | 28 |
| | Total | 100 | 100 | 100 |
| Benefits of completing course – A promotion (or increased status at work) | | | | |
| *Certificate 1-2 level* | No | 78 | 86 | 84 |
| | Yes | 22 | 14 | 16 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 75 | 81 | 79 |
| | Yes | 25 | 19 | 21 |
| | Total | 100 | 100 | 100 |
| Benefits of completing course – An increase in earnings | | | | |
| *Certificate 1-2 level* | No | 70 | 88 | 84 |
| | Yes | 30 | 12 | 16 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 55 | 82 | 75 |
| | Yes | 45 | 18 | 25 |
| | Total | 100 | 100 | 100 |

| | | | | |
|---|---|---|---|---|
| Benefits of completing course – Change of job | | | | |
| *Certificate 1-2 level* | No | 84 | 88 | 87 |
| | Yes | 16 | 12 | 13 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 86 | 83 | 83 |
| | Yes | 14 | 17 | 17 |
| | Total | 100 | 100 | 100 |
| Benefits of completing course – Was able to set up my own business | | | | |
| *Certificate 1-2 level* | No | 98 | 97 | 98 |
| | Yes | 2 | 3 | 2 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 96 | 96 | 96 |
| | Yes | 4 | 4 | 4 |
| | Total | 100 | 100 | 100 |
| Benefits of completing course – Other | | | | |
| *Certificate 1-2 level* | No | 96 | 94 | 94 |
| | Yes | 4 | 6 | 6 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 96 | 93 | 94 |
| | Yes | 4 | 7 | 6 |
| | Total | 100 | 100 | 100 |
| Benefits of completing course – No benefits | | | | |
| *Certificate 1-2 level* | No | 74 | 54 | 59 |
| | Yes | 26 | 46 | 41 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 83 | 62 | 67 |
| | Yes | 17 | 38 | 33 |
| | Total | 100 | 100 | 100 |

**Table 6.2: Outcomes from courses for apprentices and trainees who withdrew or cancelled before completing their qualification, by level of qualification**

| Outcome | Response to question | Apprentices and trainees | Not apprentice or trainee | Total |
|---|---|---|---|---|
| Labour force status before course | | | | |
| *Certificate 1-2 level* | *Completed Year 12* | | | |
| | Employed | 53 | 65 | 64 |
| | Unemployed | 24 | 16 | 16 |
| | Not in labour force | 19 | 15 | 15 |
| | Not Employed (NFI) | * | 5 | 5 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Year 12* | | | |
| | Employed | 57 | 46 | 47 |
| | Unemployed | 15 | 19 | 18 |
| | Not in labour force | 25 | 29 | 28 |
| | Not Employed (NFI) | 4 | 6 | 6 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 56 | 54 | 54 |
| | Unemployed | 17 | 18 | 18 |
| | Not in labour force | 23 | 23 | 23 |
| | Not Employed (NFI) | 4 | 6 | 5 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | *Completed Year 12* | | | |
| | Employed | 71 | 71 | 71 |
| | Unemployed | 16 | 11 | 12 |
| | Not in labour force | 11 | 15 | 15 |
| | Not Employed (NFI) | 2 | 2 | 2 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Year 12* | | | |
| | Employed | 67 | 59 | 60 |
| | Unemployed | 16 | 14 | 14 |
| | Not in labour force | 15 | 22 | 22 |
| | Not Employed (NFI) | 3 | 4 | 4 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 68 | 65 | 65 |
| | Unemployed | 16 | 13 | 13 |
| | Not in labour force | 13 | 19 | 18 |
| | Not Employed (NFI) | 3 | 3 | 3 |
| | Total | 100 | 100 | 100 |

| Labour force status at 30 May 2003 (summary) | | | | |
|---|---|---|---|---|
| *Certificate 1-2* | *Completed Yr 12* | | | |
| | Employed | 56 | 66 | 65 |
| | Unemployed | 22 | 16 | 17 |
| | Not in labour force | 16 | 15 | 15 |
| | Not Employed (NFI) | * | 3 | 3 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Yr 12* | | | |
| | Employed | 54 | 49 | 49 |
| | Unemployed | 31 | 21 | 22 |
| | Not in labour force | 8 | 24 | 22 |
| | Not Employed (NFI) | 7 | 7 | 7 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 55 | 56 | 56 |
| | Unemployed | 28 | 19 | 20 |
| | Not in labour force | 10 | 20 | 19 |
| | Not Employed (NFI) | 7 | 5 | 5 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | *Completed Yr 12* | | | |
| | Employed | 74 | 72 | 72 |
| | Unemployed | 13 | 12 | 12 |
| | Not in labour force | 10 | 14 | 14 |
| | Not Employed (NFI) | 4 | 2 | 2 |
| | Total | 100 | 100 | 100 |
| | *Did not complete Yr 12* | | | |
| | Employed | 68 | 59 | 60 |
| | Unemployed | 19 | 16 | 16 |
| | Not in labour force | 9 | 21 | 20 |
| | Not Employed (NFI) | 4 | 4 | 4 |
| | Total | 100 | 100 | 100 |
| | *All school levels* | | | |
| | Employed | 70 | 65 | 65 |
| | Unemployed | 17 | 14 | 14 |
| | Not in labour force | 9 | 18 | 17 |
| | Not Employed (NFI) | 4 | 3 | 3 |
| | Total | 100 | 100 | 100 |

| | | | | |
|---|---|---|---|---|
| First full-time job at 30 May | | | | |
| *Certificate 1-2 level* | No | 36 | 23 | 24 |
| | Yes | 64 | 77 | 76 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 30 | 15 | 17 |
| | Yes | 70 | 85 | 83 |
| | Total | 100 | 100 | 100 |
| Benefits of undertaking training – Got a job | | | | |
| *Certificate 1-2 level* | No | 69 | 87 | 85 |
| | Yes | 31 | 13 | 15 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 70 | 88 | 87 |
| | Yes | 30 | 12 | 13 |
| | Total | 100 | 100 | 100 |
| Benefits of undertaking training – An increase in earnings | | | | |
| *Certificate 1-2 level* | No | 75 | 95 | 92 |
| | Yes | 25 | 5 | 8 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 75 | 91 | 90 |
| | Yes | 25 | 9 | 10 |
| | Total | 100 | 100 | 100 |
| Benefits of undertaking training – A promotion (or increased status at work) | | | | |
| *Certificate 1-2 level* | No | 91 | 92 | 92 |
| | Yes | 9 | 8 | 8 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 85 | 89 | 89 |
| | Yes | 15 | 11 | 11 |
| | Total | 100 | 100 | 100 |

| | | | | |
|---|---|---|---|---|
| Benefits of undertaking training – Change of job | | | | |
| *Certificate 1-2 level* | No | 90 | 92 | 92 |
| | Yes | 10 | 8 | 8 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 87 | 91 | 91 |
| | Yes | 13 | 9 | 9 |
| | Total | 100 | 100 | 100 |
| Benefits of undertaking training – Was able to set up my own business | | | | |
| *Certificate 1-2 level* | No | 97 | 98 | 98 |
| | Yes | * | 2 | 2 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 97 | 97 | 97 |
| | Yes | 3 | 3 | 3 |
| | Total | 100 | 100 | 100 |
| Benefits of undertaking training – Other | | | | |
| *Certificate 1-2 level* | No | 95 | 90 | 90 |
| | Yes | * | 10 | 10 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 94 | 89 | 90 |
| | Yes | 6 | 11 | 10 |
| | Total | 100 | 100 | 100 |
| Benefits of undertaking training – No benefits | | | | |
| *Certificate 1-2 level* | No | 64 | 38 | 41 |
| | Yes | 36 | 62 | 59 |
| | Total | 100 | 100 | 100 |
| *All qualification levels* | No | 67 | 43 | 45 |
| | Yes | 33 | 57 | 55 |
| | Total | 100 | 100 | 100 |

**Table 6.3: Graduates - Agreement with statement 'Overall, I was satisfied with the quality of this course'**

| Response to question | Certificate 1-2 | Certificate 3-4 |
|---|---|---|
| Apprentice or trainee | | |
| Agree | 83 | 82 |
| Disagree | 7 | 6 |
| Neither agree nor disagree | 10 | 12 |
| Total | 100 | 100 |
| Not apprentice or trainee | | |
| Agree | 85 | 82 |
| Disagree | 6 | 8 |
| Neither agree nor disagree | 9 | 10 |
| Total | 100 | 100 |
| All graduates | | |
| Agree | 85 | 82 |
| Disagree | 6 | 7 |
| Neither agree nor disagree | 9 | 11 |
| Total | 100 | 100 |

Source: Unpublished data from the 2003 Student Outcomes Survey

**Table 6.4: Module completers - satisfaction by qualification for apprentice/trainees and non-apprentice/trainees**

| | | Apprentice/ trainee | Not Apprentice/ trainee |
|---|---|---|---|
| *Qualification* | *Q64@1. The overall quality of the course* | *Column %* | *Column %* |
| Certificate 3-4 | Agree | 74 | 70 |
| | Disagree | 10 | 14 |
| | Neither agree nor disagree | 16 | 16 |
| | Total | 100 | 100 |
| Certificate 1-2 | Agree | 61 | 71 |
| | Disagree | 14 | 13 |
| | Neither agree nor disagree | 25 | 16 |
| | Total | 100 | 100 |

Source: Data from the 2003 Student Outcomes Survey