NCVER Australian Apprenticeships

Issues and directions from a review of the Australian apprenticeship and traineeship literature

S Saunders

Author's note:

The author notes that the issues and directions in this paper were framed with the aid of such apprenticeship and traineeship reports and statistics as were available up to and including October 1999.

ISBN 0 87397 690 8 web edition
TD/TNC 65.09

Published by NCVER
ABN 87 007 967 311

252 Kensington Road, Leabrook, SA 5068
PO Box 115, Kensington Park, SA 5068, Australia

Contents

Executive summary

As a contribution to a National Centre for Vocational Education and Training (NCVER) review of developments and directions in training since the introduction of traineeships in 1985, this paper considers issues and directions arising from a review of recent literature in the Australian apprenticeship and traineeship system.

Over 125 post-traineeship references have been scanned for their key topics and issues. Relatively few appear to target specific issues of entry-level training (ELT) or link vocational education and training (VET) issues to the issues of other sectors of education and training, or broader industry and labour force trends.

Broadly speaking, the paper falls into two parts. The first classifies and considers the issues raised in the references. The second offers a series of ideas and directions for the future of VET and particularly ELT.

Issues

Consideration of *supply and demand issues* points to the remarkable growth in school–work combinations and traineeships, and highlights recent concerns over levels of apprenticeship provision. The paper is sceptical of a general crisis in ELT provisions, while acknowledging specific supply problems and the higher trades and the need to respond to the challenges of maintaining the relevance of apprenticeships.

Reviewing developments in the *training policy and system*, the paper describes the burgeoning of public VET funding and the alternating periods of development since the late 1980s in training programs and their training and regulatory systems. The paper notes the shift towards the demand side of the training system and acknowledges (some) degree of streamlining of accreditation and recognition arrangements.

The development of the *public training market* is canvassed, including the continuing interest in more diverse funding and market models (apart from 'user choice') and the pleas for better market information.

Theories of *private training investment* are introduced as a prelude to discussion of the respective roles of government and enterprises in training. The costs and benefits of trade and traineeship training are reviewed alongside the potential impact of training incentives.

The paper acknowledges the evidence that employers train apprentices for social and community motives rather than for direct profit, but characterises this as a positive feature of the system. A query is raised whether instruments such as wage cuts, training levies and training incentives are sharp tools to solve contemporary training problems quickly.

Measuring training market outputs across the whole market for middle-level vocational training, rather than just in new apprenticeships training, is seen as an important issue. The

interdependence between demand for new apprenticeships, and that for adjacent forms of vocational certificate-diploma preparation, is noted.

A review of *training intermediaries, pathways and innovations* follows. This leads to a proposition that training pathways similar to those proposed in the Carmichael report of 1992 should now be developed more intensively and through a broader range of agencies. A need is seen for the training system to respond diversely to the pressure on apprenticeships, the casualisation of jobs and the learning needs in small business.

Finally, the paper reviews *training quality and performance issues*, particularly the quality debates in traineeships and the post-Australian National Training Authority (ANTA) moves towards better training data and greater performance orientation. Possible gaps between the policy directions and the information available are discussed.

Directions

Recognising the record of achievement and adjustment since the introduction of traineeships, this part of the paper proposes ideas and directions for the future of the ELT system in the broader VET context. Each of the propositions is illustrated by examples of possible supporting measures.

Sharpening training investigation and diagnosis

The proposition is that government and business sharpen investigation and research to identify and diagnose the critical facts and issues of entry-level training 'just in time' for better policy-making.

The inconclusive investigations of the traineeship surge since 1995–96 are noted. Other issues are cited where timely investigation and diagnosis could be valuable. The drift of these examples is to urge increased research on levels of training provision, quality of training providers and training cost issues.

Repositioning the trades in the training marketplace

The proposition is that training regulators, providers and intermediaries take concerted action to reposition the trades centrally in the marketplace of training opportunities for talented young people.

It is suggested that the relevance and success of Australian apprenticeships can no longer be taken for granted. Intermediaries and providers must unite for the common goals of arresting decline and substitution in the trades. Various measures are put forward and relate to the flexibility of training and its rewards, as well as the presentation and positioning of apprenticeship training in schools and communities.

Renewing the traineeship consensus

The proposition is that government, the training system and business work together to rebuild the common aims and objectives for traineeships.

The slant of this paper is that the unprecedented jump in numbers is at least as problematic as the topical quality concerns. Hence, there is a leaning towards replanning of traineeships levels and types (and incentives in relation to trades and other vocational certificate programs), rather than towards particular efforts to adjust the mix of on-the-job traineeships or youth traineeships.

Broadening the education and training horizons for new pathways to vocational skills

The proposition is that the entry-level training planning horizons should expand to include new agencies and pathways which broaden the routes to vocational skills.

It is suggested that, if entry-level (new apprenticeships) training is to retain an appropriate share of education and training, planning could be more responsive to major shifts towards 'non-standard' schooling and employment in recent years. Several measures are suggested to encourage a more ecumenical range of providers for and pathways through entry-level training. This may include educational institutions and private companies, and particularly training providers and pathways that make allowances for 'non-standard' employment.

Testing new approaches to training markets

The proposition is that there is a continuing need to consider and test more diverse approaches to training markets and funding.

The VET training market policy is now a reality, and is characterised by 'user choice' and other competitive measures. There are reasonable views that more could be done to improve the operation of the current market and that variations to the 'user buys' forms of market provision originally proposed in the 1994 Allen report merit continuing consideration. Measures are proposed to improve the flow of information in the current market and to test alternatives for market provision within and beyond user choice.

Widening the avenues for structured training in enterprises

The proposition is that there are opportunities to increase industry participation in structured training and make it a better match to enterprise training needs.

The paper considers the varying possibilities for governments to encourage 'general' or 'specific' training for enterprises and the extent of enterprise responsiveness and openness to the current training frameworks and incentives. It proposes rationales and measures for increased industry participation in structured training, whether as registered training organisations (RTOs) or by making more use of the forms of structured training which appear to be preferred by business.

Adding pathways and learning models to the work of training intermediaries

The proposition is that further growth and maturity in the VET system will be encouraged by fostering diversity among the training intermediaries and by introducing new learning-oriented intermediaries.

There is evidence that group training and other intermediaries successfully influence training quality and numbers, and that Australia has the elements of a training culture. However, a need is seen for measures whereby existing intermediaries foster newer and innovative pathways to vocational skills and (perhaps new intermediaries) promote business skill and learning in an enterprise-friendly manner.

Reviewing and reinforcing priorities for training measurement and quality

The proposition is that emerging directions in VET performance and quality should be encouraged and refined to ensure better allocation of funds and better service to clients.

The approach is not to resile from training devolution, although the accreditation and quality mechanisms could be strengthened. Recognising the increasing Commonwealth–State and ANTA interests in useful performance measurements, improvements are urged in the availability, inclusivity and user-friendliness of information on vocational outcomes, good quality providers, and industry skill outcomes (compared to inputs).

Overview

Introduction

The NCVER is reviewing developments and directions in the training system since the 1985 introduction of traineeships (Kirby 1985), the outcome being a report on emerging issues and future directions for the Australian National Training Authority and its Ministerial Council. The report will be comprised of a series of discrete papers.

This contributory paper synthesises issues and directions suggested by a review of recent literature in the Australian apprenticeship and traineeship system.

In parallel with this literature review, NCVER has commissioned a separate paper (*Apprenticeship in Australia: An historical snapshot*) on history and trends in apprenticeships and traineeships.

Background

The paper is based on a survey of more than 125 Australian apprenticeship and traineeship references from 1985 to 1999. These were drawn from the NCVER and Department of Education, Training and Youth Affairs (DETYA) holdings and other State Government library sources.

The references are listed at the end and are summarised in the companion paper, *Review of the Australian apprenticeship and traineeship literature: References and their key issues*.

Each reference has been scanned for its origin, key topics and contemporary issues.

Around 50% of the titles reviewed are reports to government or are official papers, 25% are academic papers, 10–15% independent or consultant papers and 10–15% industry or miscellaneous papers. Many of the titles are concerned with training policy, the training market, the training system and its regulation. Other common areas of interest are training trends, supply and demand, training funding, training costs, training culture, training delivery, industrial relations and training in schools.

Few of the papers reviewed consider the links between vocational education and training issues and corresponding issues in higher education. This is surprising given the continuing integration of Commonwealth education and training portfolios and the common youth transition issues. The two sectors have instructively different approaches to vocational learning and to regulation of quality.

Only about 20–25% of the titles target directly the issues and directions of apprenticeship and traineeship training, or relate the issues of entry-level training to the major trends in enterprises and industries, or in the labour market at large.

Naturally, this finding could be attributed to the selective nature of this or any literature review. However, the trend of the readings is that it would not be difficult to duplicate or 'cascade' the general references on systemic, market, regulatory and delivery issues in vocational education

and training (VET). Robinson, for example, (1998a) claims there are some 700 research studies of the 1990s in eleven identified areas of VET research.

It would appear to be more difficult to freely multiply useful references on specific issues and directions in apprenticeships and traineeships. Industry appears to be more likely than government or academia to write about the specific entry-level training (ELT) issues, but less likely to put pen to paper in the first place.

It could be argued that the most comprehensive 'reports' produced since 1985 on trades and traineeships are the series of curriculum documents and packages that have now evolved into, or been replaced by, from 1998, the endorsed training packages.

This tends to support the view (Robinson 1998a, 1999b) that the research which preceded government adoption of traineeships in 1985 was unusually intensive, as there has been surprisingly little concerted ELT research since then.

The dearth of such ELT papers is to be regretted. These papers, although sometimes lacking in experimental rigour, seem to be fairly practical or empirical in nature and likely to promote useful policy debate. The systemic VET references are an essential consideration in what follows but, where available, the specific ELT papers breathe life into the policy debate and the findings.

Findings

The next chapter (Issues) classifies and discusses the range of issues raised in the 125 references which have been examined.

Based on the analysis of the issues, the chapter which follows (Directions) proposes a set of directions and measures for the future of ELT, in the broad context of the VET system.

Issues

The purpose of this part is to group and discuss the issues and draw out salient themes. The issues, which inevitably overlap to a fair degree, are grouped into sections for manageability. These sections consider supply and demand, the training policy and system, public training market issues, private training investment issues, training market outputs, training intermediaries, pathways and innovations, and quality and performance.

The discussion in each section considers the entry-level training issues in the broader context of developments in VET policy and the VET market.

Supply and demand issues

Supply and demand issues are a major influence on the ELT policy debate and a springboard for policy. There are two key issues here, which commentators sometimes tend to merge.

The broad issue relates to what is happening generally in the VET market and whether Australia is delivering sufficient opportunities for vocational education and training, especially for young people. The specific issue is what is happening in apprenticeships and traineeships, and whether the apprenticeship and traineeship system is succeeding, particularly in the context of meeting the needs of young people.

Supply and demand in the VET sector

Youth employment and participation were prime concerns of the Kirby Inquiry into Labour Market Programs (Kirby 1985), starting point for this present NCVER review.

The unemployment rate for 15–19-year olds had jumped from about 3% in 1970 to more like 20% in 1983. At a time when the school retention rate to Year 12 was only 40%, Kirby believed that increasing education and training opportunities for young people would sustain Australia's technological skill base and alleviate youth unemployment. He set a symbolic target of 75 000 traineeships by 1988. Only in the years since 1996 (NCVER 1998a) have numbers approached this target.

Skill and youth concerns motivated other influential reports of the early 1990s concerned with young people's education and training participation. Like the Kirby report, the Australian Education Council (AEC) report (Finn 1991) supported increasing investment in Australia's skill base and set ambitious targets. Governments embraced Finn's Year 2001 goal that 95% of 19-year olds should have completed Year 12 or an initial post-school qualification, or be undertaking recognised VET.

The Mayer and Carmichael reports (AEC 1992; ESFC 1992) of the following year fleshed out Finn's concepts of key competencies and pushed for integrated, cross-sectoral VET networks to deliver the new Australian Vocational Certificate Training System (AVCTS).

Perceiving continuing deficits in youth education and training, the Commonwealth Government (Keating 1994) put forward *Working nation* to introduce a number of school, training provider and industrial initiatives to boost youth training. Two years later, the Commonwealth Government (Kemp 1996) introduced its flexible New Apprenticeships agenda, again with a strong emphasis on VET initiatives in schools and for young people.

In the past three or four years, a number of writers have offered contemporary observations on the overall adequacy of young people's VET opportunities.

Sloan (1994) notes mixed evidence on the proposition that Australia is a low-training country in international terms. Sweet (1995, 1996), however, is emphatic that young Australians are still comparatively undersupplied with VET opportunities a decade after Kirby's report. Lundberg (1998) tends to concur.

Sweet notes that only about 25% of all education and training places available to those of upper secondary age are in the VET sector, scarcely more than the 20% of 1985 and well under the Organisation for Economic Cooperation and Development (OECD) average of 50% in 1995. He points to causes such as the growth in part-time employment and inflexible industrial relations.

While the OECD comparisons are worthwhile, they do not fully test the assumption that 25% is 'too few' teenage VET places for Australia's particular economic, labour market and social structures.

Expressing strong social concerns that Australia will fall short in 2001 of Finn's VET targets for youth, Lundberg (1998) concedes that the case for such targets weakens 'when the enterprise perspective is considered'. Borthwick (1998) reports that unmet demand for Australian technical and further education (TAFE) places is, at 9%, higher than the equivalent higher education figure of 2%, although this must be distinguished from unmet labour market demand for VET skills.

Ball and Robinson (1998), Robinson (1999b), Wooden (1998b) and Misko (1999), while expressing concerns, are less convinced of a stark national deficit in youth VET places. They imply that young people are to some extent making their own valid education and work choices, be they recognised VET programs or otherwise.

Misko, following Ball and Robinson, notes that the percentage of 15–19-year-old teenagers in VET is fairly steady around the 20% mark between 1990 and 1996. These writers attribute the fall in absolute numbers of teenage VET participants to changing teenage demographics rather than to changing aspirations.

Misko suggests that the 5% decline in Year 12 school retention rates, since the 77% peak in 1993, may be due to changing student preferences and perceptions as well as unfavourable family or personal situations. Similar preferences may be operating in the youth VET sector.

Wooden (1998b), and Lewis and Kosky (1998), infer that the big shift since Kirby is not the proportion of (15–19-year-old) teenagers in employment but the proportion in *part-time* employment. Perhaps 275 000 of these teenagers are now said to be in part-time employment and also in school. This group's numbers have grown much faster than the numbers of teenagers in apprenticeships and traineeships, now 80 000 or fewer. The first and larger of these figures is about 30% of all teenage students or 20% of all teenagers.

The implication is that the faster growth of informal work-and-study options compared to formal ELT and TAFE courses may be partly a matter of preference rather than a necessity for young people due to failures of government or the labour market.

Supply and demand for apprenticeships and traineeships

The numerical trends in apprenticeships and traineeships over 1985–1999 are considered in a number of papers and summarised in Robinson (1999b).

Robinson points to the irony of apprenticeships, and not traineeships, being the growth sector in the late 1980s following the introduction of the Australian Traineeship System. The total number of apprenticeship and traineeship commencements grew from 53 000 in 1985–86 to 76 000 in 1989–90, before falling back into the 50 000–65 000 range in the years up to 1994–95. Over that entire period, traineeship commencements were never higher than 17 000 in 1993, the only year within the period that traineeship numbers in training exceeded 10% of apprenticeship numbers in training.

Yet, by 1996–97, traineeship commencements of 54 000 had exceeded apprenticeship commencements of 44 000 for the first time ever. Total apprenticeship and traineeship commencements (NCVER 1998a and 1999) were about 123 000 in 1997–98 and 134 000 in 1998. In 1998 the collection moved across to calendar years and the formal apprenticeship–traineeship distinction was abolished.

The slow take-up of traineeships until about 1995 is often linked to tight (youth) labour markets of the time, bureaucratic inertia (Robinson 1999b) and inflexible wage and training arrangements (Sweet 1995). Robinson and Wooden (1998b), suggest that the supply-side angle, changing preferences of young people, is underexplored.

The remarkable sea-change in traineeships after 1995 does not appear to have been anticipated widely. After the event, there appears to be limited research ranking the causes and assessing the implications.

It begs the question to point to the big jumps in retail and clerical traineeships, although the existence of saleable traineeships in growth sectors of the economy is surely a precondition for traineeship growth. Traineeship policy and marketing developments, which perhaps unlocked latent changes in employers' training aspirations and preferences, also appear to have fuelled growth.

The DEETYA 1995–96 annual report (DEETYA 1996) attributes the traineeship surge to the National Employment and Training Taskforce (NETTFORCE), established under *Working nation* (Keating 1994) to provide more jobs for unemployed people and training places for (young) people.

Mansfield (1999) also attributes the traineeship increases of recent years to improved employer incentives and to the post–1993 government, employer and union promotion and marketing, including NETTFORCE. Natarajan and Misson (1998) point to the NETTFORCE effect in Victorian traineeship growth.

Schofield's quality review (1999) attributes Queensland's *ninefold* traineeship increase over 1995–98 (3000 to 27 000) to dilution of the traineeship youth focus, distortion of employer incentives and hasty implementation of 'user choice' in ELT. A Western Australian Department of Training (WADT 1997) report noted that the number of WA apprentices in 1997 (nearly 13 000) was still well ahead of trainee numbers (5000), but that trainee numbers had jumped far more (over 200%) between 1995 and 1997.

As opinions vary on the causes of the recent surge in ELT, so do they on the adequacy of Australia's overall ELT effort, particularly in relation to apprenticeships.

A common remark is that total apprentices in training are back around mid-1980s levels or 25% below the 1990 peak of 161 000 (Robinson 1999b). At question is the sustainability of the 1990 level and the seriousness of the underlying 'problem' since then.

Using data taken at June 1995 just before the traineeship surge, Sweet (1996) claims that the number of apprentices and trainees is a record Australian low as a percentage of total employment. The later (1998) KPMG labour-hire study decries the proportional decline of apprenticeships relative to the total workforce over 1970–1996, while acknowledging that absolute apprenticeship numbers have been maintained.

More optimistic are Pickersgill and Walsh (1998). 'In international terms,' they contend, 'the Australian figure of apprenticeship is high' with 2% of the total labour force in apprenticeship or 10% of manufacturing employees in an apprenticeship. The continuing relevance and success of apprenticeships is attributed to the preponderance of small firms, the 'repair-oriented' nature of Australian industry and consequent demand for multi-skilling, and the continuing and positive roles of the state and of industrial awards.

Dandie (1996) also plays down perceptions of overall trade decline, finding a reasonably constant relationship between the number of apprentices in training and the number of tradespersons employed across *all trades* over the past decade.

This author sees demand for apprentices logically following structural decreases or increases in demand for technological production. She portrays the decline over the past decade in the number of apprentices in the metal, electrical and vehicle trades and growth in the number of apprentices in the food trades as logical functions of the varying sectoral demands for trade output.

Smith (1998) finds that Queensland has maintained apprentices in training in total, and as a proportion of the workforce, since 1989. His aggregate finding masks some deteriorations in the proportion of apprentices to total tradespersons (metals, electrical and printing) and some improvements (construction, automotive, food and horticulture). It hides a downward trend in total apprenticeship commencements since 1995.

Finding most supply and demand indicators to be highly variable by industry, Smith urges that apprenticeship and traineeship issues be dealt with industry by industry.

Another concerned State view is that of Natarajan and Misson (1998), who believe that the historical Victorian nexus between apprenticeships and workforce may have been broken. Apprenticeships have fallen recently from the historical norm of over 2% to 1.6% of the Victorian workforce. That contrasts with the Pickersgill and Walsh view, although these authors are looking at the national, longer-run picture rather than the possibly atypical Victorian situation in the first half of the 1990s.

Natarajan and Misson find the 1989–96 falls in manufacturing and construction-based apprenticeship commencements to be out of proportion to the falls in the parent industry workforces. Pondering this, they note some evidence of substitution in the 'modest but telling' rise of traineeships within traditional industry havens for apprenticeships. The authors also give some credence to the theory that the falls are due to the shift to labour hire firms, which provide skilled tradespersons but do little training on their own account.

Recent industry case studies shed light on the issues. The KPMG (1998) study attributes apprenticeship falls (relative to total workforce) to outsourcing, changing skill mixes in production, poor quality of recruits, and disappearing public sector apprenticeships. Changing skill mixes and labour market requirements are also cited by Ball and Robinson (1998) and Dandie (1996) as probable causes of young people's recent shifts away from trade-related VET study towards technical and other VET study.

Marshman, and the National Electrical Contractors' Association (both 1998) cite young people's resistance to traditional metal and electrical trades. They call for greater school involvement in technical training, greater emphasis on management skills in apprenticeships, or simpler mature age entry. The Construction Industry Training Board (CITB) (also 1998) argues for alternative 'internship' models of construction training to address the unsustainable costs of apprenticeship training for small firms.

Overall, the concerns about post-Kirby apprenticeship 'declines' appear to be mitigated greatly when *structural* comparisons are made between apprenticeship levels and employment levels in parent trades and industries, rather than employment levels in the aggregate. However, there is some Victorian evidence of recent (1990s) falls relative to parent industries. Also, there may be underlying supply problems in the later 1990s, including in the key trades such as metal and electrical.

Reference to recent employment and labour market findings tends to put the problems in proportion.

Surveying employers and group training companies in 1997, DEETYA (1998a), while admitting many initial applicants are unsuitable to employers, finds that employers still have seven suitable applicants (10 in metals) for every apprenticeship vacancy and group training companies (GTCs) have three.

Before the function moved to the new Department of Employment, Workplace Relations and Small Business (DEWRSB), the Department of Employment, Education, Training and Youth Affairs (DEETYA) had tracked occupational supply and demand for a number of years, as have other commercial observers. The general drift is that trade shortages have been restrained over the past ten years, although the concern is that similar trade specialisations keep turning up in national skill shortage lists.

In 1987, the Department of Employment, Education and Training (DEET) (Dawkins 1988) listed about 30 trades as being in short supply for immigration purposes. Only about a dozen trades are national skill shortage-listed for the second half of 1997–98 (Steering Committee 1999). By June 1998, DEETYA (1998b) reports skill shortages in very few trade occupations, although the market has tightened again since. Just like 1987, the 1998 shortages include toolmaker, boilermaker, sheetmetal worker, chef and pastrycook.

DEETYA considers that shortages reflect factors such as wastage of apprentices and tradespersons, lower intakes in the early 1990s, and inability of older tradespersons to meet demands of new technology, rather than strong underlying growth in the demand for trade skills. Little is said about wages.

Wastage from the trades is a common concern (State Training Board, Victoria 1989) in the ELT literature since the Kirby report. Often, the suggestion is that the underlying supply rates to the trades, although moderate, would readily suffice were it not for early wastage. This in turn leads to remarks about the long-term career and financial attractiveness of the trades to young people.

An issue here is the countervailing attractiveness for able young people of tertiary education. Borthwick (1998) cites recent ABS evidence that unmet demand is higher in the VET sector than in tertiary education, but Sloan (1994) rates higher education as 'underpriced' to consumers and a disincentive to investment in VET. An earlier ACT study (Office of ACT Administration 1987) found that Territorial rates of supply into the professions at the time were comparatively generous compared to those for the trades.

The supply-demand readings suggest that, in the push to revitalise Australia's apprenticeship and traineeship system and attract more young people to the trades, it is important to keep local labour demand trends in sight at least as much as international trends in training supply. That is

not to say that the past supply–demand record in the trades would justify policy inertia in the future.

Finally, there is the issue of young people's declining shares of entry-level training (WADT 1997). Lewis and Kosky (1998), taking the long view over 1970–95, find that total teenage male apprentice numbers are fairly stable at 6–8% of the male 15–19 population. Dandie (at 1996) is unsurprised that the average age of apprentices has increased to nearly 17 over the previous decade, seeing this as partly a consequence of government success in the goal of increasing school retention rates.

The NCVER (1998a, 1999) analyses, and Robinson (1999b), point to the recent ageing of the combined apprenticeship and traineeship intake. Over 50% of new starters in 1997–98 were 20 years or older. This ageing correlates with the rapid growth since 1995 in clerical and sales traineeships compared to static numbers in the more traditional trade categories.

Smith (1998) contrasts the relative stability over 1994–98 of the age distribution of Queensland apprentices with the jump in the percentage of trainees over 25, from 12% to 53%. He also points out that the trainee completion rate has fallen (from over 50% to under 40%) as commencements have surged.

At this point, it may be useful to distinguish between traineeships policy and broader VET policy. Smith and Schofield, are on reasonable ground arguing that the rapid ageing of the traineeships intake does not sit comfortably with existing (State) government policy on traineeships. It is also a long way from Kirby's original target group of 'those who have left school aged 16 and 17 before completing year 12'.

Harder to clinch is the broader proposition that young people's recent loss of ELT share represents a general failure of VET policy in that State or nationally.

Robinson (1999b) cautions on this issue. Agreeing that younger people have lost ELT share compared to older people, he notes that young people 15–24-years old in apprenticeships and traineeships have actually maintained their share of the total *youth* (15–24-year-old) population throughout the post-Kirby years.

That observation tends to increase the significance of the evidence cited above—that an increasingly large number of teenagers are taking up informal work-and-study options *outside* formal ELT. Added to that, a solid 35–40% of Year 12 completers have transferred across to higher education in each year from 1985 to 1995 (Misko 1999).

Summary themes

The notable elements of the material on supply and demand shifts in VET and ELT since 1985 appear to be the remarkable surges in school-and-work combinations (see also Malley 1996) and in traineeships for young and for older people, and also the more recent evidence of potential apprenticeship decline or substitution in the face of changing labour market requirements.

The weight of the educational, labour market and training data, rather than demonstrating a crisis in VET and ELT preparation for young people, lays down a challenge for the apprenticeship (and traineeship) system to maintain its relevance and flexibility for young people in and leaving school. The data also suggest a need to study and respond to apprenticeship and traineeship challenges on an industry rather than global basis.

Although the 1990 apprenticeship peak was probably unusual, there is a query whether the trades can maintain their current base. Linked to that, there is a major question whether the recent sharp increase in traineeships is the best fit of public VET resources to Australia's ongoing enterprise

and economic needs in skill formation, especially in relation to adjacent skill needs for trades or other vocational certificates and diplomas.

Training policy and system issues

In the *Australian Economic Review*, Malley (1996) takes the pulse of Commonwealth employment, education and training policy reviews over the period 1974–1993, about ten years on either side of the Kirby inquiry.

The constant themes that Malley divines are labour force restructuring, the Commonwealth's pivotal role, the need for co-ordination of employment, education and training, and the needs of 15–19-year olds. He perceives increasing emphases on microeconomic reform, youth unemployment, the convergence of labour market concerns with school-to-work and social concerns, and the development of integrated frameworks such as the AVCTS.

In her review of traineeship quality in Queensland, original Kirby Committee member Kaye Schofield (1999) includes a thumbnail sketch of the policy shifts in apprenticeships and traineeships since 1985.

Schofield traces the evolution of the original 1985 Australian Traineeship System through to the multi-level Australian Vocational Training System and flexible Career Start Traineeships in 1992, followed by the implementation of the National Employment and Training Taskforce (NETTFORCE) and its National Training Wage traineeships in 1994 and finally the re-integration of traineeships and apprenticeships under the New Apprenticeships banner of 1996.

Intertwined with the post-1985 program developments in entry-level training are the remarkable shifts in regulatory and technical arrangements.

Kirby (1985), while not foreshadowing the present Australian National Training Authority, had recommended a broader vocational role for the State training authorities and a move toward competency training in the trades. Most States and Territories moved quickly (Office of ACT Administration 1987; Mitchell et al. 1999) to repair their training legislation to cope with the new traineeships. Although following the trades format of structured training under a training contract, traineeships did not sit comfortably with the (time) strictures of traditional apprenticeship legislation.

At the same time, governments (Segal & Johnson 1987; DOLAC 1988; State Training Board, Victoria 1989) began to consider the pros and cons of competency-based training (CBT) in the trades. Seeing possibilities for a more efficient attack on changing industry skill needs, they also foresaw potential difficulties of meshing competency outcomes with the 'time-served' principles of legislation and industrial awards. Such difficulties remain even with the advent, after 1998, of Training Packages offering a broad range of CBT-based qualifications.

The period 1989–1994, taking in the formation of ANTA, was one of profound change in training policy and systems (DEET 1992, 1993). Prompted by reports such as *Training costs of award restructuring* (Deveson 1990), Commonwealth and State investment in VET began to climb steadily towards the present figures in excess of $3bn.

A year after the landmark VET ministers' conference of 1989, ministers agreed to develop a training market, implement competency-based training via the National Training Board, establish a new national accreditation framework and establish a unified entry-level training system.

The VET ministers subsequently established an Australian Committee for (the development and exchange of national) Training Curriculum, competency standards bodies to develop industry competencies, and a general eight-level Australian Standards Framework for use by industry.

Supported by a Parliamentary report of the time (House of Representatives Standing Committee on Employment, Education and Training 1991), VET ministers agreed to the National Framework for the Recognition of Training to address national accreditation, credit transfer, registration of providers, recognition of prior learning and the assessment of competencies.

In mid-1992, upon general acceptance of the Carmichael report (ESFC 1992), Ministers approved an Australian Vocational Certificate Training System (AVCTS) for integrated, entry-level training credentials and flexible Career Start Traineeships as a bridge from traineeships into AVCTS. They intended that AVCTS be fully operational by 1995.

In July 1992 Commonwealth–State agreement came to establish a new national VET system with agreed objectives and funding, an effective public–private training market, improved opportunities and outcomes, and better cross-sectoral links. The Australian National Training Authority was established from December 1992, pooling Commonwealth and State VET funds to develop, fund and maintain a new VET system with agreed objectives and planning processes.

By June 1993, 105 work-based (that is, trainees under training contract) or more often institutionally based (not under training contract) AVCTS pilot projects for new credentials had been approved. By the end of 1994, DEET (DEET 1995) had logged about 4000 AVTS traineeships, a small but significant figure compared to the total annual traineeship intakes of 10 000–15 000 then prevalent. 'A comprehensive, industry driven system of training,' DEET concluded, 'can be implemented in Australia.'

Despite the encouraging traineeship program developments, Vince FitzGerald's (Allen Consulting Group 1994) review of the training reforms and frameworks concluded that they were not industry- or enterprise-driven. He saw the system to be overcentralised and preoccupied with the supply side of VET rather than the demand side. Sloan (1994) saw the centralised system to be lacking in an 'appreciation of why training markets fail and how imperfections can be remedied'.

Airing concerns about the centralist and technical approaches of the National Training Board and Australian Standards Framework, the Allen report pushed for a simpler recognition framework with automatic 'mutual' recognition of training across the jurisdictions. It also recommended the adoption of 'user buys' training in VET rather than totally centralised allocation of funds, but with a continuing emphasis in VET funding on entry-level training.

Other studies confirmed that the National Training Board approach to CBT implementation was not optimal. Smith et al. (1995) surveyed CBT implementation in 1994 and found that the system had not achieved the VET ministers' target of 'substantial implementation of CBT by the end of 1993'. These authors noted wide variations across States in CBT implementation and limited adoption of workplace assessment (a feature of today's Training Packages). Lundberg (1998) succinctly observes that the approach to CBT in entry-level training has been 'strongly policy-driven rather than research-driven'.

The ELT program developments (NETTFORCE and the National Training Wage traineeships) in the last few years of the Federal Labor Government, although having a positive effect on traineeship numbers, have been criticised for poor quality in several studies (Mathers & Saunders 1995; ESFC 1996). Brennan (1995) and Lundberg (1998) are more positive about the role within AVTS of NETTFORCE, group training companies and other brokers. Lundberg points to continuing cross-sectoral impediments as a brake on AVTS progress.

Traineeships, the AVTS, and the market-oriented recommendations of the Allen report, were swept up in the New Apprenticeships reforms (Kemp 1996) of the incoming Coalition Government. *Training for real jobs* emphasised an industry-led training system with new apprenticeships and traineeships going beyond the traditional occupations, more money for VET in schools, a business-led VET system with 'user choice' of training provider, redirection of training incentives, and regional training services, which are a precursor to the New

Apprenticeship Centres. ANTA's Ministerial Council endorsed user choice principles later in 1996.

In the same year, a former Secretary of the Commonwealth Department of Employment (Taylor 1996) delivered a health report on the ANTA Agreement of 1992. Taylor found evidence that ANTA's increased VET funding had led to increased VET performance, but made a number of recommendations for rationalisation of the VET funding mechanisms and repeated the familiar theme of simplifying and devolving the national recognition system.

In the following year, ANTA (ANTA Board1997) itself published an early review of the New Apprenticeship initiatives, emphasising the need for a flexible and straightforward system of training.

The ANTA report also discusses the new Australian regulatory framework founded upon Training Packages (combining qualifications, competencies and assessment processes), training providers (that is, registered training organisations) and training agreements.

As noted above, the New Apprenticeships system took effect from January 1998. So did the Australian Recognition Framework (ARF), the formal mechanism introduced to take the system beyond the limitations of the 1992 National Framework.

Under this new framework, ANTA began to endorse new training packages whereby industry training advisory bodies (ITABs) and similar bodies developed the qualifications, competencies and assessment guidelines for industries and occupations. A new Australian Qualifications Framework (AQF) has finally subsumed the TAFE certificate–diploma qualifications framework that had been used nationally (Robinson 1998b) since 1984.

About 35 training packages had been endorsed by mid-1999, although few are fully implemented across relevant training organisations and target industries.

Lundberg (1998) notes industry support and university opposition toward CBT and politely suggests that the extent of CBT implementation is not established.

A Victorian study (Foster 1998) suggests that the main impact of CBT since 1992 has been at lower qualifications levels and in high-training industries, and expresses the hope that direct assessment of competencies against a standard (rather than indirect assessment against a learning outcome) will become more common under the post-1998 Training Packages. Better professional development and quality assurance will, according to Comyn (1998), be necessary to realise the full potential of particular endorsed Packages.

ANTA has recently (1999) updated the objectives and principles of the Australian Recognition Framework (ANTA 1999). 'Mutual recognition' is the key to the framework. This is a more emphatic version, designed to minimise double-handling and case-by-case treatment of recognition issues of the national accreditation and credit transfer principles which applied under the 1992 framework.

The items which are now to be 'mutually' (reciprocally) recognised across States and Territories include qualifications, registration and accreditation decisions, and registered training organisations and their initial or 'primary' recognition authority. Mansfield (1999) suggests recently that some States tend to overlay their own approval processes on top of ARF or restrict the use of endorsed packages.

Billett (1998) contends that the centralised training model and the industry-led training model are not necessarily the only two options, calling for a 'voluntaristic' middle ground where local VET planning is pursued to meet the needs of individuals, enterprises, regions and industries. State planning processes do include (DETE 1998) a regional development input to a degree.

Training legislation developments

Commonwealth, State and Territory training legislation has evolved considerably since the initial changes made to accommodate traineeships.

Major influences have been the formation and roles of ANTA, new apprenticeships, and the successive recognition frameworks. The Commonwealth now exercises funding and other powers through the 1992 VET funding and ANTA acts (Mitchell, Robertson & Shorten 1999). The planning and regulatory purposes of State training authorities have evolved to deal with ANTA's co-operative decision-making and funding arrangements and the State training profile requirements.

Mitchell et al. describe the broad range of functions now possessed by State training authorities. As well as traditional regulation of apprenticeships and other workplace training, these functions may include the regulation of work placements for VET students, the establishment and regulation of TAFE and other training providers, the establishment of industry advisory bodies, and accreditation and recognition functions. State and Territory VET laws give varying degrees of recognition to responsibilities in connection with ANTA and regulation of new apprenticeships under the national training framework.

Mitchell et al. identify Victoria as the only State or Territory which has gone as far as adopting industry recommendations (ANTA 1996b) to abolish or freeze the legislative provisions for the 'declared vocation', a legal device of fairly recent times which enables formal regulation of entry-level training in apprenticeships and other non-trade areas.

In Victoria, theoretically, any qualification in any training package can be achieved inside or outside a contract of training. In other States, there tend to be different provisions and requirements for trade or non-trade declared vocations, and these could be seen to limit innovation and new pathways toward qualifications.

However, as Mitchell et al. note, some States allow for training schemes or training orders in their VET law, and these devices can be used to place training in non-declared vocations on a more secure footing for VET funding or regulatory purposes.

State training legislation is generally held to prevail over State industrial legislation, although that does not imply legal qualification outcomes will lead to wage or industrial outcomes based on qualification rather than time served. Mitchell et al. find that provisions for work experience placements, which are useful in some pathways to qualifications, are patchy in VET law.

State training legislation, Mitchell et al. conclude, is broadly consistent in content and purpose and therefore supportive of national training policy.

Summary themes

The main themes of post-Kirby developments in training policy and systems include the considerable increases in government funding effort, the continual evolution of both the program offerings and regulatory elements of the training system, and the gradual shift to CBT and (somewhat) more streamlined recognition frameworks.

Also notable is the changing balance between the demand-side or industry-owned elements of the VET system and the supply-side or official elements of the system.

Although the industrial relations of training (especially traineeships) have been liberalised, some concerns remain about the extent to which the current legislative and regulatory provisions enable efficient national recognition of training pathways and outcomes.

Public training market issues

The concept of a training market in the public sector has been an integral component of the national training system since 1990.

It merits its own heading here, having assumed a particular importance in the VET debate after the Allen report (1994). The issue has shaken the gradualist, consensualist traditions typical of Commonwealth–State training policy and administration. Fears raised by the training market are not dissimilar to those raised by competition in the higher education sector.

Allen had recommended a 'user buys' model of VET funding, tantamount to some form of voucher or entitlement, thereby directly placing the VET funds in the hands of the consumer.

In the following year, Curtain (1995) identified five broad VET funding options that might generate a responsive training market—funding via government but with firm performance agreements, via competitive tendering, via government intermediaries, via independent intermediaries, and through actual 'user buys'. He feared the Australian move towards 'user choice' would be ineffective without improvements in (group) training brokerage and more effective consumer information on providers.

The user choice model was promoted in *Training for real jobs* (Kemp 1996) and adopted in principle by the ANTA Ministerial Council. An indirect form of user buys, user choice ordains that VET funds should flow from the centre (that is, States and Territories) to the provider reflecting the choice made by the client.

An early ANTA-funded study (Selby Smith, Selby Smith & Ferrier 1996) of user choice in the Australian setting identified a range of issues that would need sorting out. These included reviewing the distribution of training costs, examining the impact of user choice on small business and schools, access and equity issues, improving information on providers, and undertaking more work on costing and pricing.

As it happened, New South Wales reserved its position on the implementation of user choice and only Queensland moved quickly. In 1996 (Steering Committee 1998) the share of VET funds open to user choice or competitive tendering varied from 11.6% in Queensland to 4.5% in the ACT. NCVER (1998d) notes that about 100 TAFEs and government providers account for about 75% of the 1.15m VET clients in vocational programs in 1998. The South Australian government (DETE 1998) promises 20% of public VET funds up for tender by 2000.

These types of figures might suggest that user choice critics (Fooks 1998a; Smith L 1999) are overstating the quality risks and the potential impact of user choice on the traditional TAFE system and its large sunk investments of public funds. Other writers (WADT 1996; Kilpatrick & Bell 1998; Noble et al. 1999) caution against the comfortable assumption that user choice only impacts on the margin and counsel governments to plan carefully to minimise risks of failure in thin (that is, rural) markets.

Schofield (1999) finds 'thin' markets to be a reality in contemporary Queensland training, observing cases of registered training organisations, contracted and named as training providers in training agreements, declining to provide training to trainees.

Noble et al. (1998) worry that user choice may swing the balance of power further from trainees towards employers, who may become inclined to over-customise training. Anderson (1997a) and Billett (1998) make similar points with greater force, arguing that VET students and trainees have been defined out of the client loop and are unlikely to have much consumer impact under current VET planning and allocation models.

The same author (Anderson 1997b) perceives the training market agenda to be based on assertion rather than sound research. He identifies gaps in information on the size and structure of the market and is concerned at the lack of research and information on VET supply and demand and VET 'products'.

Former ANTA CEO, Terry Moran (1998), while noting that the training market is a larger matter than just user choice, sees VET competition as the key to servicing competitive industries. Anderson (1998) and Robinson (1998b) respond that VET lacks the preconditions (multiple buyers and sellers, relatively standard products, supply and demand information) for a truly competitive market.

Paralleling the earlier Curtain (1995) paper, Anderson (1998) considers various supply-side (performance agreements, competitive tendering, preferred suppliers) and demand-side (user choice, fee for service, intermediaries, vouchers) models of VET competition and market reform.

Anderson appears to have some leaning toward mixed or semi-competitive models of VET funding. Kinsman (1998) makes a similar point, although her mix would preferably include vouchers or entitlements. Robinson (1999a) notes that 'learning accounts' have a place in the UK Government's measures to promote a training culture or 'learning age'.

Kinsman (1998) and Robinson (1998b), approaching user choice from different perspectives, experience frustrations similar to those of Anderson (1997b); that is, they fear the theoretical emphasis on the training market may detract from commonsense emphases on diversifying products and services.

'There seems little point,' complains Kinsman, 'in increasing the number of providers if choice of content and outcomes remains so very limited'. Robinson suggests that the right Australian emphasis for the future is better VET information and more diverse products rather than the commodity-markets approach of multiplying the sellers of standardised products. He urges greater attention to employer feedback and dislikes the multiple and confusing brand names for entry-level training and vocational qualifications.

From an economist's perspective, FitzGerald (1998) emphasises the importance of another kind of information—proper product specifications and outcomes measures—at the user choice end of the market. A Western Australian Department of Training (WADT) (1996) report makes similar points.

Kinsman acknowledges that user choice might work in entry-level training, where employer and trainee interests are more convergent. Noble et al. (1998) suggest that user choice will develop most in established markets where employers and providers are more (for example, hospitality) rather than less (for example, engineering) 'engaged' in training, in the sense of being able and willing to change arrangements. FitzGerald takes a different tack, advocating user choice for employer-sponsored contractual training which can signal leading-edge demand to providers.

The range of papers suggests that the empirical benefits of user choice are yet to be proven. However, one class of VET consumers, the employers, have registered a solid 80% vote (NCVER 1997) for choice of providers, and that in itself is an important signal.

It would be useful to know more about the trends and implications of user choice funding, but it is important not to lose sight of its minority place in the entirety of the public training 'market'. Well over $3bn in public VET funds is allocated through the State training profile strategies and their complex (Senate Employment, Education and Training References Committee 1995; Kinsman 1998) divisions of resources into annual hours by course area.

NCVER (1998b) comments that these resource allocations, at least in terms of annual hours, have moved 'toward areas such as business and clerical, community services, health and education,

tourism and hospitality, indicating that some key features of the VET market are finding an appropriate response from the VET systems'.

It could be that this perceived responsiveness is partly the coincidence that now (as never before) the growth industries are also the growth sectors for entry-level training. States and Territories, consistent with recent (ANTA 1996b; ANTA Board 1997; ANTA 1998) ANTA thinking and policy, retain firm commitments towards apprenticeships and traineeships underlying their State training profiles.

A scan of the 1997 plan for VET resource allocations (ANTA 1996a) suggests that resources are shifting towards growth areas with unmet VET demand, but also low-growth areas which have never used the public VET system much.

Interestingly, a comparison of the NCVER (1998b) paper and another recent industry monograph (Murphy 1998) implies that the ANTA resource shifts match up with low output growth, high-job growth industries rather more than high-output growth, low-job growth industries. There is an element of this thinking in some of the recent State planning and profile documents (DETE 1998).

This raises questions about what types of industries the State profiles seek to reward and, indirectly, raises the possibility that industries in Murphy's second group might be able to catch up on VET funding by accessing user choice funding.

Summary themes

Certain themes emerge from the diversity of views on the training market and user choice. In effect, Australia already has a mixed or semi-competitive funding model for VET funding. The mixed model may have the potential to improve the efficiency or equity of resource allocation, although not necessarily in the highly competitive manner originally intended by the policy-makers. The recent resource shifts appear to have both economic (serving growth industries) and effectiveness or equity (serving underserviced industries or unmet demand) dimensions.

'User choice' may not necessarily be the *sine qua non* for the competitive end of the VET market. There are concerns about quality and that 'thin' markets may not be as well served by user choice as by centralised allocations from the public purse. Various observers are still keen to try something like the 'user buys' recommended by the Allen report. This might be aimed at increasing choice and outcomes (via learning entitlements or accounts) rather than intensifying market competition. For example, those completing a traineeship could be given an entitlement or incentive towards a trade or certificate.

The evidence is that employers would like a choice of providers. That leads to practical reminders from several schools of thought that choice cannot operate effectively unless there is a genuine diversity of providers and better information for employers and trainees about the choices. Writers urge attention to the market's everyday requirements for better VET information, more diverse VET products, and clearer product specifications.

These concerns also link to broader concerns for better information on the economic or supply and demand reasoning underlying VET funding allocations to the 'market'.

Private training investment issues

Common in the VET literature (OTFE 1998; Steering Committee 1998; Robinson 1999a) are reminders that, according to recent Australian Bureau of Statistics (ABS) surveys, private Australian expenditure on training, indeed structured training, is in excess of public expenditure, while large firms spend more than smaller.

‘We know that over 60% of Australia’s enterprises provide their employees with some kind of structured or unstructured training each year,’ writes Robinson, ‘spending over $4 billion annually on the structural training component’. Nearly all large employers (20+) are said to provide structured or unstructured training, as are more than half of small (20-) employers but not many micro (1–4) employers.

Because of its size and economic importance, analysts are frequently concerned to understand the dynamics of private sector investment in structured and entry-level training to make judgments about the extent to which government should promote or underwrite such investments.

Human capital theory is the usual backdrop for analysis of private training psychology and effort. In simplified terms, the idea (Sloan 1994) is that training costs (optimally) are shared between firms and workers in proportion to the respective benefits accrued. The Centre for Labour Market Research (CLMR) (1997) puts it that firms will offer training ‘up to the point at which the returns from an increment of training equal the costs of that increment’.

The Office of Training and Further Education (OTFE) (1998) notes that Australian employers follow the theory in terms of devoting 70% of their training expenditure to specific in-house training from which they will presumably accrue greater benefits than employees.

The theory runs into snags in the apprenticeship market. If, as is usually the case, apprenticeship is seen to be closer to ‘general’ than ‘specific’ training, then apprentices should bear a higher proportion of the cost than employers. This appears to be not so in Australia and even less so in certain European countries.

Dockery et al. (1997) review overseas and Australian findings that apprenticeship is a net cost to firms. Conducting their own survey of 59 firms, they deduce an average net cost of $22 000 over a four-year apprenticeship, with a particularly high net cost in year one shifting to a small net benefit by year four.

Although an estimated 90% of the cost variation is between the 59 firms rather than between the trade groups, the authors find lower costs and higher benefits in food and hairdressing compared to metal, electrical and other traditional trade groups. A related study (CLMR 1997) finds a similar cost-benefit pattern for apprenticeships, but also that on average, trainees are as productive as other workers by the end of their traineeship year.

Surprisingly, most of Dockery’s 59 firms perceive a net training benefit rather than cost, perhaps psychologically factoring in possible benefits after year four. The 1998 Regional Economic Research Unit and Group for Research in Employment and Training (RERU–GREAT) finds comparable but higher net costs than Dockery and suggests that employers train for social and community reasons despite high costs. WADT (1997) also considers that employers’ altruistic motives are to the fore in apprenticeships, but that business motives prevail in traineeships.

Drawing on the Dockery survey, Norris et al. (1997) conclude that the distribution of apprentice training costs is 53% to the firm, 28% to the apprentice and 19% to the public sector. Again, this suggests that employers are following social motives as much or more than human capital theory. Billett and Cooper (1998) prefer to explain returns on training investment in broad terms of increased productivity and quality, cost savings, workforce motivation and flexibility, rather than strict cost-benefit terms.

Norris et al. measure the social rate of return from male apprenticeship as nearly 13%, although recent policy may shift training costs more in the direction of apprentices. ‘If employers’ willingness to offer apprenticeships has been a constraint, then these changes should stimulate training,’ they comment. ‘However, there is a danger that such reforms may undermine a system which has been quite successful.’

The disquiet about using market-oriented VET policy to shift the distribution of training costs is similar to the disquiet surrounding user choice. Looking at the recent empirical evidence in terms of apprentice numbers and employer perceptions of apprenticeship costs, several observers (Dandie 1996; Anderson 1997c; RERU-GREAT 1998) are perplexed by the emphasis on lowering apprentice wages as an employer training incentive.

OTFE (1998) cites strong international (if not Australian) evidence from manufacturing and other industries of links between structured training and increased productivity, workplace reform, and retention of skilled workers. According to this study, the human-capital paradox of high European enterprise investment in 'general' VET is better explained in cultural terms of strong internal labour markets and low turnover, rather than in terms of the strong recognition frameworks, which are also found in Australia.

General training, the OTFE report suggests, may be the best focus for Australian VET funding, although 'this is the reverse of some arrangements under training packages, where government funds training aimed at specific industry-based competencies'. Billett and Cooper, however, point out that the training needs of some enterprises (for example, in metals, construction and hospitality) are largely 'furnished by existing publicly funded VET provisions' in recognised apprenticeships and traineeships. Such enterprises will presumably invest less privately in training than enterprises in emerging industries.

In their different ways, both these studies are pertinent to the rationales for State training profiles and their direction of public VET funds. Observers may agree on weighting public funding towards 'general' training or entry-level training, but disagree on the point at which 'specific' training turns into general training. In the short term, emerging and specialised industries may be typecast as having specific training needs, but that may change over time. It may also be the case that their strong output indicators will point to an early payoff from public VET investments.

Training levies and incentives

As well as directly funding TAFE and private providers to deliver entry-level training places, governments may offer incentives to boost private investment in training for new entrants or for existing workers.

Various 1980s papers (Dawkins 1988) had argued that private enterprise was underinvesting in training. As a result, the Commonwealth from 1990 required firms with a payroll in excess of $200 000 to devote 1% of payroll to training their workers. This Training Guarantee levy was suspended in 1994. A DEETYA report (Fraser 1996) on the levy is positive about the impact on firms' training plans and expenditures, while conceding that the initiative was not targetted accurately to low-training industries or small business.

Robinson (1999a) suggests that smaller firms actually wound back their training expenditure over the period of the levy. He argues that the levy was ineffective in promoting the training culture, having little impact on very big and very small firms.

Despite the mixed evidence, the KPMG (1998) study of labour hire and apprenticeships suggests the reconsideration of industry levies. Fooks (1998b) makes a similar point. Although unconvinced of the levy's merits, Lundberg (1998) considers that 'nothing has replaced it' to induce better (industry and firm) coverage and equity in training.

Robinson (1999a) and Billett and Cooper (1998) note that larger Australian firms are making larger (structured) training investments than small businesses and are more attuned to the training system and its intermediaries. Gibb (1999) wonders if small business really needs the product of structured, accredited training at any price.

As has been the case for a number of years, the Commonwealth continues to provide employer incentives for entry-level training, although these do not match the $13,000 first year apprentice cost reported in the Dockery study. Unsurprisingly, this paper queries employer incentives as a major factor in apprentice recruitment.

There is a tradition of periodic budget boosts in these incentives to increase supply or increase intakes for special groups. The CITB (1998) study suggests that incentive boosts are at the margin of usefulness up against the profit-and-loss economics of extra apprentices in small construction firms.

The Centre for Labour Market Research (1997) recently reviewed the overall impact of employer incentives in generally positive terms. However, the employers sampled claim they would want fairly substantial hikes in employer incentives before lifting apprentice or trainee levels. For example, a 100% increase in apprenticeship subsidies might induce 40% of employers to take on more apprentices. Employers are found to be more responsive to training incentive raises than the corresponding training wage cuts, the latter mechanism being seen to have a negative impact on the quality of recruits.

At the time, 1997, the Commonwealth was considering the withdrawal of incentives from large (more than 100 employees) firms but pulled back after industry protests and an external study of the issues.

Employer incentives now cost over $300m annually and are available for upskilling of (some) existing employees as well as for new apprentices and trainees. The WADT (1997) policy paper cautiously endorses discretionary incentive funding for upskilling, where employees are in a contract of training.

As from May 1999, existing employees will only attract the incentive if they have been with the company for a defined period and are undertaking a course of defined (currently two years) length. Schofield (1999) argues that the earlier regime encouraged too much in the way of on-the-job or enterprise-specific traineeships at the expense of central entry-level training needs.

The OTFE (1998) study suggests that some government subsidies may be necessary to entice low-training industries into training existing workers, but does not see this to be where government can have its main impact. 'In training the existing workforce, the potential of government to fund training,' it argues, 'is dwarfed by the benefits of increased employer investment.'

Governments may be better placed, OTFE suggests, making VET investments that are levers for greater private investments in training. Such investments might include promotion of training, brokerage of training for small business, and measures promoting flexibility in training delivery. Catts' (1996) study of small and medium businesses suggests that government might provide funding to demonstrate the value of structured training to uncommitted small firms.

Summary themes

The size and importance of private training investment is a key message in this section. There are concerns about the lesser training effort of smaller firms and whether the VET sector has the products or the incentives to spur small firms into formal training.

FitzGerald's (Allen Consulting Group 1994) query whether training reform has had a 'demonstrable effect on firms' decisions and productivity' still resonates. Billett and Cooper (1998) argue that there has been a failure to realise the 'twin policy goals' of increasing the amount of training and securing greater enterprise sponsorship of training.

Human capital theorists tend to place government in the realm of 'general' entry-level rather than firm-specific training, although that may include promoting training to non-training firms and for

existing company employees. Noting the fair social rate of return on apprenticeships, the theorists also argue that apprentices should perhaps pay a higher proportion of the training cost than they do. This could be in the form of reduced wages, although other empirical analysts challenge the logic of this.

The general drift of the studies questions the wisdom of wage cuts, levies and incentives as sharp tools to solve contemporary and future training problems; that is, the studies suggest that only substantial or costly shifts in these measures induce much in the way of behavioural change.

There is strong evidence that individual apprentices cost the firm more than the benefit over the period of training and the gap is larger than the employer training incentives available. Significantly, certain trades and all traineeships appear to offer a quicker cost–benefit payoff for employers. This may test employers' social and community motives in training apprentices for the traditional trades.

Employers' altruistic motives in training apprentices are considered to be remarkable. In ecological models of commerce (Hawken 1993), these motives might (within reason) be taken as signs of health in the apprenticeship system. International findings also point to broader payoffs of structured training in productivity and worker loyalty.

Measuring training market outputs

FitzGerald (1998) defines the training market as 'that part of the education and training system which provides individuals with the skills and learning expressly required by enterprises and industry' and distinguishes therein providers, purchasers, clients and outputs. His total purchaser market, estimated to be over $6bn, is met by TAFE ($3bn), enterprises and suppliers (each about $1bn), and adult and community education, commercial providers, non-profit, skill centres (each $0.2bn–0.5bn).

Robinson (1998b) and Borthwick (1998) note that Australia now has about 1000 providers of publicly funded VET programs, a market which accounts for over $3bn of FitzGerald's $6bn. NCVER (1998d) estimates that a mere 100 TAFE and government providers have the lion's share (about 75%) of this market in client terms, the remainder being shared among community (15%) and other registered providers (10%).

Grappling with the 'products' or 'outputs' of this public VET system, Robinson defines these in terms of qualifications, skills and competencies gained by individuals, and skills and competencies required by business. He describes the complex array of products (qualifications) available under the AQF and its predecessor.

Robinson counts a combined total of well over 500 000 enrolments for full qualifications in trade certificates or higher (under the old system) plus certificates III and higher (under AQF) at 1996. This figure presumably includes many of the 160 000 apprentices and trainees in training that year. Of more than 1.5 million clients in public VET in 1998, NCVER (1998d) counts about 750 000 enrolled for qualifications at or above the AQF certificate III or equivalent, or as many as 850 000 including certificates II.

The trades usually equate to about certificate III in the new system and traineeships to about certificate II or III (NCVER 1998a). The figures show that the total enrolments for certificate II and III qualifications, even if restricted to vocational fields of study, are much larger than those for trades and traineeships. The total number of TAFE graduations at certificate II–III or above in 1997 (NCVER 1998e) appears to be about twice as high as the 50 000 apprenticeship and traineeship completions in 1997–98 (NCVER 1998a).

Robinson urges simplification of the AQF qualifications and their names and the use of one simple brand name for apprenticeships. The WA Department of Training (1997) proposes merging the strengths of apprenticeships and traineeships under the New Apprenticeships banner. From 1998, apprenticeships and traineeships are no longer distinguished in official new apprenticeship statistics, although they may be rather different in skill or occupational labour market terms.

There is an issue here in the measurement of the public VET market and training delivery. There is less systemic reporting of trends in the vocational certificate and diploma markets than there is of trends in apprenticeships and traineeships. The certificate-diploma markets include established occupations in science, engineering, health and community services and so on. They may also include some of the higher and post-trade skills to which we may be paying (Curtain 1996a; Jenkins 1999) insufficient attention in our skill formation policies.

Billett (1998) and Natarajan and Misson (1998), among the few recent writers to consider the trade and middle level markets together, find that declines in Victorian apprenticeship participation over 1990–96 have gone hand in hand with significant increases in associate diploma course participation. Ball and Robinson (1998) take a similar tack.

State training profiles, Natarajan and Misson note, have shifted to reflect these shifts in labour (and student) demand. Presumably, the courses so funded would not attract the employer incentives discussed above.

Summary themes

The Australian Recognition Framework (ARF), training packages, and State legislation, are increasingly deregulating vocational pathways to certificates in trades, traineeships and related occupations. It is becoming more important to relate the contract-based training perspective to measurement of trends and vocational outcomes in the overall certificate and diploma market, including higher trade and operational skills that may be needed for a competitive Australian economy.

It would be useful to have a more clearly lit intersection between the measurement of the $3–4bn public training effort and that of the $4–5bn private training effort.

The private sector training effort is not measured as intensively or regularly as the public effort and does not seek the same qualifications outcomes. However, it should be possible to measure and compare the two markets in terms of (for example) the types of industries and firms they serve. This may become increasingly important as efforts continue to develop the training culture and to market the VET products in the emerging industries and medium-to-smaller firms.

The present forms and divides in measurement somehow encourage the supply-side notion that the public VET market is the stronghold of ‘serious’ entry-level training and qualifications, whereas the private VET market is conducting less known forms of structured or unstructured training.

Training pathways, intermediaries and innovations

This section considers training pathways and training delivery and how they do or might promote the training culture in enterprises.

The Finn and Carmichael reports (Finn 1991; ESFC 1992) have had a particular influence on thinking about skill formation in entry-level training. Together with the House of Representatives Standing Committee on Employment, Education and Training (1991) report, they developed ideas

and arguments for expanding the education and training 'pathways' for young people and for delivery arrangements that separate compulsory from post-compulsory education.

Carmichael put forward a suite of recommendations for 'integrated VET networks', whereby various school and post-school providers would provide flexible pathways for young people toward what is now called the AQF 3 or certificate III level. He also proposed a range of industry measures to support the pathways—industry-level training plans, industry or enterprise-level training agreements, enhanced training advisory and group training arrangements, and more equitable arrangements for training wages and training allowances.

At the close of the decade, the Australian report card on progress with entry-level training pathways and innovations is mixed. A similar range of training providers delivers publicly funded VET programs (but on a more equitable footing with TAFE), similar training intermediaries are involved (with an interesting newcomer), and progress with innovative pathways has been fairly restrained (school-based programs are a possible exception).

One advance is that Australia now has a much larger number of registered training organisations that can deliver accredited programs and issue qualifications under the same framework as TAFE. However, about 100 TAFE and government providers (NCVER 1998d) still retain about 75% of the public VET market in terms of client numbers and 85% in terms of the volume of annual hours delivered.

Many of the community organisations or private colleges now competing for VET funds under 'user choice' or other competitive arrangements would probably have been involved in training under previous Commonwealth programs, or under labour market programs prior to their absorption (1998) in the Job Network.

Acknowledging the increases in VET in schools, the training market has not yet significantly diversified the bulk of training provision. There have long been a few universities and commercial enterprises that have effectively delivered vocational training and skill outcomes inside the training system. A more diverse range of organisations may choose to become registered training organisations and compete in the VET market as, and if, the new recognition and qualification frameworks are allowed to become firmly established.

Barnett fairly recently (1995) surveyed the training intermediaries and observed that they found the processes for full recognition as a training provider to be highly complex.

Training intermediaries

At the close of the 1990s, industry training advisory bodies and group training companies continue to have important roles as training intermediaries in the post-1998 training system. NETTFORCE has come and gone. The relatively recent Australian Student Traineeship Foundation (ASTF) could be seen as a significant new intermediary.

At the beginning of the 1990s, the National Board of Employment, Education and Training (ESFC 1990) considered the role of ITABs and made some 'housekeeping' recommendations. The ITABs program shifted from DEET to ANTA management at the beginning of 1994.

FitzGerald's (Allen Consulting Group 1994) review of the training reforms pushed for greater business leadership of ITABs. When NETTFORCE was established (Keating 1994; Mathers & Saunders 1995), it set up a number of industry training companies to lift entry-level training for young people. These in some respects paralleled or overlapped with ITABs.

The presumed role of NETTFORCE in the sudden 1990s rise in traineeships has been mentioned. NETTFORCE was liquidated in 1998, although some NETTFORCE companies evolved into New Apprenticeship Centres or assumed other training functions.

Wooden's (1998a) recent employer survey finds only about 40% employer awareness of ITABs, but with high variation across the five industries surveyed. A sizeable minority of employers surveyed still expect that ITABs will deliver training programs directly, whereas for some years their assigned role has been more in the nature of co-ordinating and increasing the quantity and quality of training in a sector of industry or commerce.

One recent example (Rural Training Council of Australia 1999) of an ITAB strategic plan focusses on skills development, skills supply, and marketing training reform. This means selling the industry, selling the value of structured training, marketing the training package to RTOs and industry, and overcoming blockages to the use of training packages.

Wooden suggests that the focus of ITABs needs to shift from advising government more towards advising industry and employers. Most of the endorsed training packages, especially those for the trades, have been developed under the auspices of ITABs. Their roles, as evidenced by the Rural Training Council of Australia (RTCA) plan, also include marketing and fostering the implementation of training.

As with the group training companies, a key question is the extent to which ITABs could foster the training culture in small and micro firms.

GTCs are intended to provide and manage structured training opportunities which rotate apprentices and trainees through (smaller) firms unable to host training on their own.

GTCs generally have received good press in the VET literature of the 1990s. The House of Representatives Standing Committee on Employment, Education and Training (1991) recommended continued support for their work. As recommended in Carmichael's (ESFC 1992) report, GTCs helped to implement the AVCTS. *Working nation* (Keating 1994) introduced an additional $1000 on top of the usual incentives for trainees if they were recruited into GTCs.

The industry reference group report (ANTA 1996b) on new apprenticeships implementation sought to refocus the GTCs to lifting training numbers and bringing small business into training. Buchanan and Sullivan (1996) endorse the GTC influence in construction industry training innovations. Natarajan and Misson (1998) note that annual GTC apprentice commencements have doubled between 1990 and 1996 in Victoria.

These GTCs may have played their part in staving off declining trade commencements. The more striking observation is that Victorian group training traineeship commencements have increased *tenfold* over the same period. Without any criticism of GTCs, the question again arises whether the incentive 'levers' are generating the crucial skill outcomes for enterprises and the economy.

The new intermediaries in the field are the New Apprenticeship Centres (NACs), administered by DETYA (formerly DEETYA) rather than ANTA and undertaking the operation of the regional training services concept of *Training for real jobs* (Kemp 1996).

The stated objective of NACs (DEETYA 1997) is to 'streamline services to employers, apprentices and trainees by providing a one-stop integrated support service'. This might include information, marketing, administering support services and incentive payments, and handling training agreements. NACs are expected to present employers and trainees with one face for Commonwealth (for example, incentives) and State (for example, training agreements) entry-level training services. They are measured and paid according to training commencements, completions and quality of processing.

Although the Commonwealth Government investment in NACs (about $70m over the first 19 months) is readily commensurate with the ANTA investments in ITABs and GTCs, there appears to be little commentary available on the impact of this innovation on training numbers and on other training intermediaries.

Gibb (1999) notes the roles of GTCs (carrying 23 000 out of 123 000 apprentices in 1997), NETTFORCE and NACs in delivering training services to small business. More evaluative information on the relative impact of NACs may come to light as the first contract period ends in late 1999.

Training pathways

Training pathways have probably become more flexible (Axarlis & Cheshire 1998) in the years since the Carmichael report, perhaps not in the 'integrated' or cross-sectoral manner that may have been envisaged. There is evidence that new pathways to trades and related occupations are being enabled by the new training packages and recognition frameworks and other features (for example, user choice) of the system.

DEET (1995) reported 4000 innovative Australian Vocational Training System (AVTS) traineeships by 1994, a small but significant number at the time. Pickersgill and Walsh (1998) and Curtain (1996a) consider that employers and industrial relations stifled AVTS innovations, whereas Lundberg (1998) points to cross-sectoral rigidities. Statistical evidence on current innovations is limited and tends (apart from the VET in Schools program) to suggest a smallish scale of operation.

Malley (1997) describes alternative program delivery models for entry-level training and New Apprenticeships. His models portray entry-level training as the first stage of a possible two-stage New Apprenticeship. They include institutionally based training, traineeships, school–TAFE partnerships, and school–TAFE partnerships with work placements added. Noting cross-skilling in the trades, he believes such models will need to be considered if public VET funds are to be used efficiently and effectively.

An ANTA project (Miles Morgan 1999), building on recent papers for ANTA chief executives, similarly describes alternative pathways to AQF 3 trade qualifications in terms of (a) institutionally-based training, (b) front-end off the job training, (c) innovative apprenticeship pathways, and (d) recognition pathways using bridging training.

This ANTA project finds and describes case studies of Malley's 'two-stage' approach to trade qualifications, apprentices undertaking trades via traineeships and also via school-based apprenticeships. Traineeships in trade categories have been permissible only since 1994 and school apprenticeships are recent. Natarajan and Misson and Foster (both 1998) express the hope that training packages will free up traineeship pathways to trades.

A regional New South Wales study (RERU-GREAT, 1998) tests a first-year apprentice training school option against standard apprenticeships, rating the training school model as more expensive in year one but possibly better and cheaper thereafter. A South Australian paper (CITB 1998) proposes a 'front end' institutional training model in building trades.

The ANTA project paper notes that students can start on pathways a to c—institutional, front-end training, and innovative apprenticeship—by taking some form of VET in Schools program. Evidently, some of the earlier resistance to VET pathways in schools (Hawke 1992) has been overcome, although Carmichael's separate senior colleges have not gone much further than the jurisdictions which already had them at the time of his report.

Two years after Carmichael, NBEET (1994) reported on the role of schools in vocational preparation. The tenor of the recommendations is to bring national vocational programs into schools and to improve and simplify linkages between school and TAFE and their respective qualifications. This report displays a degree of impatience with cumbersome mechanisms for 'transfer' of credits from school to TAFE and VET. This is one aspect that has probably improved in more recent VET in Schools programs.

The later (1997) Dusseldorp Skills Forum study of the VET in Schools program was based on a near 80% sample of Australian schools. It finds significant quality variation across States in school–industry program duration, labour market relevance and assessment practices. The two Territories, and possibly Tasmania, are seen to have the 'best fit' of programs to workplaces, schools, and the VET system of certification.

Misko (1999) cites 1996 data that nearly half of Australian schools provide VET programs but only about 10% of students take them up. A positive view of VET in schools comes from New South Wales (NSW DET 1998). 'The 41 000 students undertaking dual-accredited (that is, in the HSC and by the Vocational Education and Training Accreditation Board [VETAB]) vocational courses in New South Wales represent approximately 30% of all Year 11 and 12 students.' Nationally, VET in Schools program numbers exceeded 100 000 in 1998 and may top 130 000 in 1999.

The Australian Student Traineeship Foundation brokers about half of the VET in schools opportunities. States and Territories have recently been piloting actual school-based apprenticeships, generally being mindful of the safeguards called for in the McPhee et al. (1997) report. Students can reach up to and beyond AQF 1 in Years 11–12 and then complete an apprenticeship after finishing school.

Lamb, Long and Malley (1998) offer a useful historical reminder that VET in schools is not new to Australia, having been a feature of previous generations of technical high schools. They summarise concerns that today's VET in Schools programs could be seen as an informal means of 'streaming' non-academically inclined young people.

Misko (1999) concedes that VET in Schoolers are less likely than other students to continue in further education and training, although this does not prove cause and effect. Considering personal and family factors behind the recent slip in Year 12 completions, she takes a positive view of the VET programs and even suggests that they be extended to students who are on the 'school-to-university pathway'.

The fourth pathway (d) considered in the ANTA project is recognition, of prior learning or competency, plus bridging training. Wilson and Lilly (1996) give a mixed review to the first five years of recognition of prior learning (RPL) in the Australian training system. They note that benefits are sometimes assumed rather than proven and that there is great variability in practices and in fees. They cite ABS data of the time (1994) counting about one-fifth of 64 000 TAFE graduates receiving some form of RPL, but often this is just for prior *TAFE* study.

Assessing 1997 TAFE graduates, NCVER (1998a) finds some improvement, with over 30% receiving some form of RPL, although the percentage drops to 20 for apprentices.

NCVER's (1997) employer satisfaction survey found only about 50% awareness of RPL. Possibly, the new training packages and recognition framework will free up RTOs' use of the 'recognition plus bridging' pathway, to recognise current workplace skills and previous study. This has the attraction of bringing non-RTO enterprises under the formal training system umbrella, although the earlier concerns about covering training providers' RPL costs and fees may not be fully resolved.

A recent report to the Department of Employment, Workplace Relations and Small Businesses (DEWRSB 1998) proposed that the Tradesmen's Rights mechanism, effectively a form of RPL for overseas-trained and local informally trained metal and electrical tradespersons, be brought under the functions of Australian RTOs. There is also a history of special schemes in response to peak Australian demands and permitting formal upgrade of semi-trade workers. In effect, RPL has always been permitted at the margin for key trades. Now the opportunity is there to mainstream the process.

Writing of the printing industry, Jarvis (1998) is optimistic that new apprenticeships will open up recognition and training opportunities previously denied to large parts of the workforce. Comyn (1998) is cautious about the potential of training packages to unlock training opportunities in the rural industry. He cites the importance of industry and training provider alliances and the attendant needs for professional development and quality assurance.

The ANTA alternative pathways project (Miles Morgan 1999), it might be noted, classifies potential obstacles to new pathways as rigidities in VET legislation, industrial relations (gaps between competency and wage outcomes), uneven access to VET funding and employer incentives, quality assurance, and industry concerns.

A reasonable observation is that these obstacles apply more to the trades than traineeships, a situation which leads back to the concerns raised above that traineeships' greater flexibility and quicker employer cost-recovery may lead to increasing substitution of traineeships for trades. To prevent that happening, comments WADT (1997), 'the aim should be to marry the rigour of the apprenticeship system with the flexibility of the traineeship system.'

Training innovation and training culture

Examining 30 innovative skill schemes in the construction industry, Buchanan and Sullivan (1996) observe that public VET funds often underpin the innovations, which are rarely implemented purely by business. A less positive view of the public sector's role in corporate training innovation is that of Down (1998), who finds that the national reform processes have cut across enterprise and shopfloor reforms in the Ford motor company over 1990–95. The company's internally developed advanced certificate (pre-ARF and AQF) programs are supposed not to fit into the changing national frameworks.

As quoted earlier, Billett and Cooper (1998) make the point that enterprises in emerging industries may be less well furnished with public VET funds than enterprises in better established industries with known apprenticeships and traineeships.

Curtain (1996c) observes skill formation in a small group of leading-edge Australian firms in manufacturing and knowledge industries. He finds that these firms struggle to move from the ad hoc mode of production to a structure suitable for expansion. Their efforts to form learning networks remind the author of the voluntary UK Investors in People program.

Glover's brief (1998) paper is a reminder of the possibilities for training innovation in an 'old' industry. The author summarises the market reasoning behind Victoria's funding of an International Fibre Centre as a centre of excellence linking industry, education and training providers, and researchers. Not based on particular training organisations or qualification pathways, the facility is to be open under 'flexible access and (technical, not teaching) staff arrangements which will allow for the plant and equipment to operate on demand'. ANTA itself, it might be noted, has a small Skill Centres program.

There are a few VET observers who are interested in finding a useful place for training at the cutting edge of business. Rather more, it would seem, are interested in the place of training in small business and the development of the 'training culture' generally.

The Office of Technical and Further Education (OTFE 1997) surveyed the outcomes of VET for a mixed sample of Victorian employers and training participants. These employers dislike 'ready made' TAFE courses. They call for greater enterprise involvement and more recognition of the value of on-the-job training (including formal use of industry premises).

Valued principles for small business training delivery are listed in the OTFE study as on-the-job delivery, short off-the-job bursts, timing to suit the employer, enterprise relevance, and individual learning support. Citing this study, Gibb (1999) suggests that providers could respond to these

employer preferences by training for enterprises in groups or by mounting improved on-the-job traineeships.

Gibb (1998, 1999) notes the limited penetration of (structured) training into small business and the ANTA requirement for small business sections in State training profiles.

She puts it that the VET system tends to project a view of structured, accredited training which, no matter how well constructed, small business does not need. A 'cluster' of business development, management and performance services might be more attractive.

She discusses recent work on flexible or workplace-based training delivery for small business, including mentoring programs. Training for small business is increasingly recognised to be informal, conducted on site or involving business advisors.

Similarly, a recent NCVER (1998c) pamphlet points to small businesses preferring to use business networks for informal learning, being more likely to train in response to 'business problems' and preferring short training developed to meet their specific needs.

The VET sector is seen to have concentrated too heavily on generic management training and programs for start-up businesses. These approaches have only reached about 25% of small businesses and not increased participation.

Perhaps, the NCVER pamphlet speculates, up to 50% of small business 'might or should' train, but this will depend on the right marketing and products. There appears to be little Australian research evaluating the impacts of small business training on the bottom line, on training attitudes and activity, and on improved performance.

Noting the training culture emphasis in the current ANTA national strategy, Robinson (1999a) suggests that Australia has more of a training culture than is generally believed, pointing to the large private investment in training ($4bn or 80% of all employees) and the 12% of the working age population taking a VET course in 1997. He shares other commentators' concerns with the apparent wind-back by small (20-) employers in training effort as measured by ABS over 1990–96.

Like Curtain (1996a, 1996c), Robinson points to the UK Investors in People program, which endorses 'good training firms', as a possible model for developing the training culture in Australia.

Following Curtain (1996a), Robinson also sees merit in learning networks. He points to the UK 'University for Industry' (UfI) which is part of a new government package to promote a training and learning culture. Rather than concentrating on particular industries or forms of accredited training, the UfI is to analyse national and regional gaps in supply and demand and target individuals and businesses by promoting lifelong learning, brokering learning products and services, and franchising new learning centres. The agency's strategy is to link individuals and enterprises with the right kinds of learning (not necessarily training) opportunities.

Smith (Smith A 1999) shares Robinson's view that the Australian training culture is healthier than it might first appear. Scanning European findings and Australian observations, he identifies five elements of an (enterprise) training culture. These are the link between training and the business strategy, workplace innovation, a positive employee relations climate, management commitment, and industry tradition.

Looking at employee relations, Hawke and Wooden (1997) summarise the recent falls in Australian union membership and the shift to various forms of enterprise bargaining. Guthrie and Barnett (1996) find limited evidence that these changes have improved the training culture. Only about a third of 2000 enterprise bargains studied mention training. The training provider, if designated at all, is often in-house and there is a reluctance to go though the national registration processes of the time.

While the present paper does not go into the detail of industrial relations in the trades, innovative enterprise and award arrangements do appear to have an untapped potential to moderate supply and demand problems in the trades.

A Commonwealth–State review predicted in 1988 that competency-based outcomes in trades, if achieved, might not align with award (wage) outcomes. The same types of trades still tend to recur in current national skill shortage lists. There is limited progress in repackaging their training arrangements and rewards to encourage employers and apprentices. The 'approving authorities' set up under New Apprenticeships (Kemp 1996) are a recent effort to introduce flexible types of industrial determinations for apprentices and trainees employed under agreements rather than awards.

Summary themes

The first objective of the national VET strategy calls for 'numerous and diverse pathways' into VET programs that will meet industry skill needs. The impression emerging here is that recent progress on this has been restrained. There is a larger number of accredited training organisations, but the bulk of VET funds is still allocated to a smallish number of traditional-type providers, with fairly limited participation by schools, universities, private companies or other non-traditional providers. The Senate Employment, Education and Training References Committee (1995) and Lundberg (1998) call for more inclusion of schools in VET planning and funding.

Industrial relations and cross-sectoral problems have slowed pathway reform, but the pace has quickened in the later 1990s.A recognition of the technical and industrial complexities, new VET in Schools programs, school apprenticeships, and traineeships within trades, may now extend training and job opportunities to new groups of (young) people.

As with VET in Schools programs, there are formal precedents for the recognition of prior learning in Australia. As urged by WADT (1997), RPL may offer enterprises and their adult trade-related workers a welcome route into the formal training system while addressing a few concerns about the disjunction between the private and public worlds of training.

Comparing the material on pathways and innovations to the earlier section on supply–demand trends, some concerns emerge.

More action may be needed to address the major shift to 'non-standard' forms of employment for students and in the general workforce. Curtain's (1996b) ANTA project report estimates 50% of the workforce to be self-employed, part-time or casual. 'Limited access to training' for young people in non-standard employment is cited as a possible contribution to the shortfall on 'Finn' targets for young people. VandenHeuvel and Wooden (1999) agree that casual workers are less likely to undertake in-house or formal work-based training, although they possibly make up for it with training out of job hours.

The ANTA report proposes a part-time or casual traineeship to cover different periods of employment, where the training provider would be host for the 'learning agreement'. KPMG (1998) similarly proposes apprenticeships tailored to 'non-permanent' working arrangements. The Rural Training Council plan of Australia (1999) expresses concern that 'there is no funding or organisational structure for traineeships for casual employees'.

Secondly, the supply-demand concerns in the trades perhaps signal a need for an increasing rate of innovation to keep pace. Innovation is emerging in VET in Schools program, institutional or 'front end' training models, and in RPL, but it is small-scale and conservative in its industrial relations elements. More willingness to learn from and build on these experiments may avert increasing substitution of traineeships for trades.

Turning to training intermediaries, the NACs appear to be a creative if expensive solution to problems of getting (small) employers into the training system. Although they have marketing roles, much of their workload appears to be multi-step training administration. This goes back to the early point about the extent to which the system has been simplified.

The major training intermediaries—ITABs, GTCs, NACs—promote quality and quantity of structured training in one sense or another. None (primarily or officially) promotes expert business development and learning exchange, although the research points to this being a major unmet small business need. The evidence is that only some small businesses want to buy the CBT-VET product some of the time.

The British UfI concept for a learning exchange, which could be realised through VET intermediaries or educational institutions or via a purpose-specific agency, may bear further Australian examination. Skill centres may also be an underexploited model.

In this context, it is worth noting again that, despite their general antipathy towards CBT and structured training, a number of Australian universities (Mitchell et al. 1999) run innovative and successful 'TAFE divisions' under State training legislation. The universities may not embrace CBT more widely (Lundberg 1998), but there is nothing to stop the VET sector embracing the learning model when it suits the need.

A sector that may be missing out on its share of VET innovation and funding, although there are interesting signs of it being picked up by State profiles and in user choice, is the 'cutting edge' of industry, perhaps in manufacturing and the knowledge industries.

Training quality and performance issues

This section considers the implications of quality and performance issues for entry-level training and for VET generally.

Kirby (1985) was at pains to frame his traineeships as a national 'quality program worth undertaking', arguing for an emphasis on general, transferable skills and calling for the off-the-job component to be provided by TAFE institutions for consistency and quality.

Concerns were raised early on about the quality of the program or the likely quality of trainee intakes and, in that sense, Schofield's report (1999) is nothing new. The period since 1985 appears to be one of notable focus on traineeship quality and surprisingly little focus on apprenticeship quality, although various reports (Dawkins 1988; DOLAC 1988; Curtain 1996a; Smith L 1998, 1999) are critical of quality in the senses of the occupationally narrowness or the ad hoc nature of competency acquisition and apprentice supervision. The assumption that trade-type training is superior in quality to traineeships or other pathways (including institutional training and RPL) is not always tested.

The Australian Public Service Office Traineeship was evaluated as early as 1987. Chapman and Thorn (1989) considered the responsiveness of New South Wales TAFE to traineeships, examining the adequacy of equipment for off-the-job training, lead times, planning procedures and staff development needs. Kelleher (1989) regretted the lack of research on traineeship curriculum, calling for improvements to on-the-job curriculum to address national traineeship goals.

Mathers and Saunders (1995) and especially ESFC (1996) were concerned at the quality of the traineeships mounted quickly to respond to the *Working nation* challenge. ESFC recommended the reining-in of on-the-job traineeships.

Schofield's (1999) report on Queensland traineeships employs broad tests of overall quality rather than narrow tests of teaching or training quality. Her tests are effectiveness, fitness for purpose, efficiency and accountability.

Against these four tests, Schofield finds a number of quality problems. Efficiency and effectiveness are in question because of high costs and low completion rates. Fitness and accountability are challenged by breaches in user choice and recognition requirements, outright service (training delivery) failures and limited official accountability.

Schofield's report could be read as a caution against highly devolved training initiatives or, like the ESFC report, but unlike Gibb (1999), on-the-job traineeships. Indeed, some recommendations are along those lines. However, it could equally be read as an indictment of imbalanced data collection and quality processes in the face of rapid growth.

Alone among States, Queensland had opened up user choice quickly to all providers. A Government review running in parallel to Schofield's found that there were 68 steps between training registration and completion, suggesting that risk management efforts were being devoted more to the micro issues rather than larger issues such as the quality and probity of providers.

Recognising these faults, Schofield also recommends changing the approaches to training administration and quality control. She suggests an annual government performance statement on traineeships and a 'balanced suite of strategic and operational performance indicators'.

Just three years after the formation of ANTA, the Senate Employment, Education and Training References Committee (1995) made similar statements in calling for a greater performance orientation in VET funding and better data for the performance measurement of outcomes. Taylor (1996) called for better VET data and a greater emphasis on performance measurement.

As noted in a previous section, topical concerns with the quality of VET performance information often spring from the training market and specifically from user choice. Various analysts (Anderson, 1997b, Robinson 1998b) argue for more supply-and-demand information in relation to VET funding allocations or more useful VET provider and performance information, so customers can make informed 'user choice' decisions.

Despite finding little evidence of pressure on TAFE to improve performance, FitzGerald (1998) believes that 'meaningful product descriptors and outcomes measures' are a must before user choice can be extended. He believes that other national VET systems are doing better in performance management (UK) and quality systems (NZ).

Borthwick (1998) is another who discusses the recent efforts to increase VET data quality and reliability. She summarises the 1996 ANTA performance measures; for example, participation, graduate outcomes, employer satisfaction, 'module load' completion rates (per government dollar), and government expenditure per annual hours. She comments that the focus on completion of modules rather than of qualifications arises because 'not many people get' qualifications in the VET sector, unlike higher education.

As noted in a previous section, NCVER reports (1998a, 1999) enable measurement of trends in apprentice and trainee commencements and completions. Authors in some States (Smith L 1998, Natarajan & Misson 1998) have gone further to consider the implications of comparing apprentice and trainee numbers with numbers employed in parent trades or parent industries.

Other NCVER (1998e, 1997) reports measure performance on graduate outcomes and employer satisfaction. In May 1998, about 73% of TAFE certificate-and-above graduates from 1997 were employed, with figures of 80–90% in some courses. Comparing employed graduates by industry, construction employees are most likely (over 70% of total) to have found the course highly

relevant. Interestingly, graduates are on average relatively more satisfied with teachers and courses than with (career) information.

Among 2,700 employers of 1997 TAFE graduates, NCVER rates employer satisfaction as 'generally high', with nearly 80% of employers rating VET at 6/10 or better.

The Steering Committee for the Review of Commonwealth/State Service Provision (Steering Committee 1998, 1999) approaches performance measurement in terms of outcomes, access and equity, quality and efficiency. Schofield's quality grid is similar, but focusses more on the auditor's concerns. The steering committee, applying its framework to the VET sector and adapting ANTA and NCVER information, concentrates on VET participation growth compared to funding growth, graduate and employer outcomes (as per the NCVER reports), male–female participation, and module load comparisons.

Matching the finding in Taylor's (1996) ANTA review, the steering committee finds that 1996 rises in VET participation match rises in VET funding. It notes that males and females aged 15–64 have about equal shares of VET participation in 1996, although males still outnumber females in the 15–24-age bracket.

Overall, the steering committee and ANTA (ANTA 1996a, 1998) documents suggest a reasonable match between equity groups' shares of VET and their shares of the working age population. Females now take about 46% of total training commencements (NCVER 1999). Despite some years of targetted programs, the female percentage is still much lower in the traditional trades. The special Aboriginal training body (ATSIPTAC 1998) recently called for targeting of traineeships to Aboriginal groups.

According to the steering committee (Steering Committee 1998), the average 1996 'module load' completion rate in VET is 85%, ACT being below average, South and Western Australia well above. In this context, module load completion rate refers to the proportion of hours in successful completion of training modules or units compared to the total number of module hours provided by the VET sector. Government recurrent expenditure per hour of 'module load' completions is about $13, ranging as high as $17 in the ACT and down to $11 in Victoria and Queensland. The average had increased to nearly $17 by 1997.

Borthwick (1998) characterises the recent trends in VET performance measures in terms of shifts from: inputs to outputs, institutions to enterprises, qualifications to skills, courses to modules, classes to flexible delivery, and providers to customer choice.

While this is probably true as a generalisation of trends, the material reviewed in the course of this paper suggests there are enduring gaps in measurement of training in enterprises and measurement of (apprenticeship and non-apprenticeship) skills outcomes.

Applying its customary performance measurement grid to VET, the Steering Committee for the Review of Commonwealth/State Service Provision (Steering Committee 1999) infers a relative lack of information on skill outputs and skill gaps, although ANTA is working on this. From 2001, the seven key performance measures for VET are to comprise skill outputs, stocks of skills, employers' views on VET skills, student outcomes, VET client groups' participation and outcomes, public expenditure per publicly funded output, and public expenditure per recognised output.

Customer choice information and supply–demand information in relation to VET funding are also performance measurement concerns that arise throughout this paper. Not unlike the situation with Australian schools, it is difficult to find well-presented comparative information on RTOs and their outputs and outcomes (see also Curtain 1996a).

Finally, Hager (1998) notes the recent ANTA emphases on quality and benchmarking. The author reviews a variety of recent VET approaches to quality management, at the provider or program level rather than at the system-wide level. He suggests that quality assurance (that is, International or Australian Standards approaches), best practice, benchmarking, and self-managed teams, are promising approaches to quality in the Australian VET context.

According to the recognition framework (ANTA 1999), registered training organisations are required to have higher order quality management in place if they wish to go beyond training delivery and issuing of qualifications to practise self-management of training recognition.

Summary themes

There is a consistent theme of concern with the quality of traineeships and traineeship outcomes, rather more so than with apprenticeships or other pathways. Recent reports on traineeships are specifically concerned with the quality of on-the-job traineeships, but also with the general balance of the quality control and audit work by State regulators.

ANTA appears to have responded to early concerns about the lack of performance orientation and performance measurement in VET funding. Rather more complete reports on efficiency and effectiveness are now possible, as measured annually in ANTA performance reports and also by the Commonwealth–State reports on government services.

There is now improved information on employer and student satisfaction, although this does not fully address concerns about critical information requirements to support an informed user choice market.

If the critical task of VET were taken as that of training providers building skills for industries and employers, then it could be said that there are noticeable gaps in comparative information about the providers and how (well) they are replenishing the skill banks in different industries. This goes back to the early point on the industry-specific nature of apprenticeship and traineeship problems and opportunities. Some of the gaps are addressed by the new VET performance framework for 2001.

Finally, there is the issue of VET systems' and providers' disciplines for benchmarking, risk management, and quality systems and processes, and whether more (or better) use of these techniques might mitigate some of the recent quality problems.

Directions

The purpose of this section of the paper is to draw out possible VET and entry-level training policy and program directions from the combined weight of the issues and their salient themes.

This paper has begun with the observation that relatively few VET papers focus on the specific ELT issues or the cross-sectoral links to other education and training pathways. Note has been made of the remarkable growth in school–work combinations and traineeships and the recent question marks over apprenticeship provision.

The paper has described the burgeoning of public VET funding and the alternating periods of development in ELT programs and their system and regulatory provisions. The development of the training market has been canvassed, as well as the continuing interest in diverse funding and market models (apart from 'user choice') and the continuing calls for better market information and greater inclusiveness towards clients.

Theories of private training investment have been introduced, as a backdrop for a discussion of the respective roles of government and enterprises in 'general' and 'specific' training. The costs and benefits of trade and traineeship training have been reviewed alongside the potential impact of training incentives. Social and community motives for training are characterised here as a positive.

Consideration of the 'whole' market for vocational training is seen as a key issue. That means linking new apprenticeship training to other middle-level vocational training and other educational opportunities for young people, linking public and private training. The pace and appropriateness of training innovation is then assessed, alongside the roles of the training intermediaries and the overall degree of responsiveness to developments in labour market needs and business preferences.

Finally, the paper has briefly reviewed the past and present quality debates in traineeships and apprenticeships and the post-ANTA moves towards better training data and greater performance orientation. Gaps between the policy directions and the information available are discussed, particularly in terms of providers and skills for industries.

From this point forward, the intention is to recognise the remarkable adjustments and achievements down through 1985 (traineeships), 1990 (a unified ELT system), 1992 (ANTA), 1994 (Allen report and *Working nation*), 1996 (New Apprenticeships), and 1998 (recognition framework and training packages), and to propose a set of ideas and directions which might help to position the ELT and VET systems at the leading edge to ride the next waves of societal change and structural change in the labour market.

Sharpening training investigation and diagnosis

The proposition is that government and business sharpen investigation and research to investigate and diagnose the critical facts and issues of entry-level training 'just in time' for better policy-making.

The evidence in this paper supports Lundberg's (1998) and Robinson's (1998a) calls for discerning quality in VET research and greater emphasis therein on entry-level training. There is a deficit of research which is sponsored by or includes industry (consumers) and drives towards timely and factual consideration of key issues for ELT in particular industries or occupations.

A case in point is the inconclusive investigation of the causes and implications of the 1990s traineeship surge, perhaps the critical ELT phenomenon of the decade.

A glance back through this paper throws up a few other issues where a number of timely diagnoses, especially those which play down received agendas in favour of factual investigation and comparison, could well make a positive difference to policy. Such issues might include:

- lowering persistent barriers between VET and other sectors of education and training
- bridging the different positions on the overall adequacy of Australia's VET provisions
- testing the adequacy of apprenticeship-and-higher skill provisions in key industries
- comparing the costs and outcomes of traditional versus competitive VET funding
- measuring RTOs comparatively and measuring skill outcomes by industry
- defining and measuring the benefits and costs of enterprise training in Australia
- getting the best value out of the major shifts in the training intermediary market
- testing the potential for lifelong learning models and programs in VET

Repositioning the trades in the training marketplace

The proposition is that training regulators, providers and intermediaries take concerted action to reposition the trades centrally in the marketplace of training opportunities for talented young people.

The evidence in this paper does not quite support the proposition that the traditional 'trades' portion of new apprenticeships is in a state of crisis. It suggests rather that greater willpower in the application of the training and industrial reforms is overdue to manage repetitive supply and wastage difficulties in particular trades in particular industries. The traditional apprenticeship model may be missing (Curtain 1996a) the high-skill end of Australian skill formation needs.

Changing industry skill mixes and more widespread availability of traineeship-for-trade alternatives lend urgency to the reform task. If the training community arguably failed to 'pick the curve' in the traineeships market of the late twentieth century, it would be a loss if something similar happened in the trades market of the early twenty-first century.

The empirical evidence points to employers, when they train, training apprentices for social and community motives as much as for profit. A challenge lies with the custodians of the supply side to put aside differences in the greater cause of attracting talented young people into these employer offerings. The continuing relevance and success (Pickersgill & Walsh 1998) of Australian apprenticeships can no longer be taken for granted.

These are a few trade-related initiatives prompted by the paper:

- modifying trade training strictures to respond to the understandable employer preference for the fast cost-recovery and flexibility of traineeships
- persevering with the VET in Schools program and school apprenticeships to combat negative trade images and motivate young people towards the trades before career choices are made
- encouraging the intermediaries (ITABs, GTCs, NACs) to plan together for school apprenticeships that are industrially sound and acceptable to employers
- training providers conceiving and marketing the trades as a business management opportunity and using the flexibility of Training Packages to train people that way
- combining the energy and skill of the training intermediaries to unblock training pathways and address regional, industry and occupational declines in the trades
- in key industries, developing overdue (including traineeship-based) pathways under awards or agreements that will enable quicker outcomes and fairer matches between the trade competencies and the rewards
- using the Training Packages to develop and demonstrate post-trade (higher certificate and diploma) career pathways up to the higher skill levels and higher rewards

Renewing the traineeship consensus

The proposition is that government, the training system and business work together to rebuild the common aims and objectives for traineeships.

After years of comparative failure, the 'traineeships' part of the AQF and new apprenticeships frameworks is now an embarrassment of riches. There is underlying disquiet about quality and targeting (Schofield 1999) and best value for ELT money.

The sheer volume of AQF 2–3 traineeships has moved the program away from young people's entry-level training as originally intended and more towards older people's training and upskilling.

It may be neither possible nor desirable to put traineeships back on the old track. However, public support of traineeships is not an automatic entitlement and the parties are entitled to move the program funding back more towards central economic needs or central target groups.

The tenor of this paper is to query whether extreme traineeship growth is the best fit of public VET resources to economic and enterprise needs in skill formation. Recent student demand patterns (Ball & Robinson 1998; Billett 1998) and State profile patterns (Natarajan & Misson 1998) now suggest relative shifts away from structured training and into other technical and VET studies.

There are grounds for reckoning that a proportion of the demand-side expansion in traineeships is a matter of (retail, clerical and other) employers responding to marketing by paralleling necessary enterprise-specific private training with publicly-provided general training. Schofield (1999) claims that 'distorted' employer and payroll incentives are encouraging employers to use (on the job) traineeships inappropriately.

However, singling out on-the-job traineeships for harsh treatment seems at odds with the potential of training packages and the value industry and employers place on job-based training. Perhaps RTO standards and the state of employer incentives are more the issues.

In view of the large shift to school–work combinations and the maintenance of young people's overall VET and higher education participation, the final reckoning may not be that the shifting age composition of traineeships represents a major loss for young people.

The government and industry parties to traineeships could work on issues such as:

- possibly limiting the numbers or proportions of traineeships to be ANTA funded in the medium term, especially in relation to trade and other middle vocational certificate outcomes at or near AQF 3 levels
- alternatively, directing further traineeship growth towards programs which are industrially flexible and respond to the growth in school-based and casual employment
- allowing and encouraging planning profiles to move towards vocational certificate and associate diploma programs, adjacent to traineeships, which are in demand
- revising registration and quality standards (cf ANTA, 1999) or imposing higher audit levels for RTOs that wish to offer mainly on-the-job traineeships
- broadening input to and review of the regime for DETYA incentives (for New Apprenticeship Centres and for employers) in view of its effect on traineeship marketing behaviour
- reviewing regularly the 'height of the bar' for State profile support or DETYA incentive support of training for existing employees
- perhaps offering particular (employer or other) incentives to encourage employers and trainees to make use of traineeships-to-trade progressions

Broadening the education and training horizons for new pathways to vocational skills

The proposition is that the entry-level training planning horizons should expand to include new agencies and pathways which broaden the routes to vocational skills.

Throughout this paper, there is an impression of a considerable focus on entry-level training, an ever-increasing focus on whole-of-VET profile planning, but limited focus on the middle ground in between.

The Finn (1991) and Carmichael (ESFC 1992) reports originally proposed integrated VET networks and pathways to vocational skills, but progress has been mixed. There is limited diversity among training providers and continuing resistance to the legitimacy of organisations such as schools (even when separate senior colleges), universities or private companies as full training providers. Meanwhile, there have been major shifts toward school and work combinations and other 'non-standard' forms of employment for young people and for others.

If new apprenticeships are to retain their appropriate share of education and training in key industries which experience labour shortages, labour market changes should be reflected in more flexible pathways to skills. Recent work (Ball & Robinson 1998; Billett 1998; Misko 1999) emphasises the continuing interdependence of entry-level training pathways for young people and other pathways to work, VET and higher education. The vocational certificate market is probably twice as big as new apprenticeships in terms of completions.

With the adoption of training packages incorporating flexible pathways to certificates II–III (New Apprenticeships level) and other adjacent qualifications, it seems time for a shift in planning focus if not funding priorities. Present legislation, industrial, and VET funding, provisions may not always encourage the realisation of new pathways.

The planning horizons and pathways of entry-level training could be broadened by:

- improving the dialogue between VET planning and other sectors of education and giving practical or program encouragement to RTOs which are schools, universities or companies
- regularly monitoring and reporting publicly the participation and outcomes in the VET pathways and VET occupations which are adjacent to new apprenticeships
- identifying and reducing legislative, industrial relations, and VET funding, biases against new pathways toward trade qualifications and adjacent VET qualifications
- improving VET policy and granting reliable VET seed funding for promising new qualification pathways that use institutions, training contracts or recognition
- making a concerted effort to encourage 'casual'-focus RTOs, and industrially recognised pathways to skills, to accommodate the unmet needs of the increasing numbers of people in non-standard forms of employment

Testing new approaches to training markets

The proposition is that there is a continuing need to consider and test more diverse approaches to training markets and funding.

The VET training market has been a matter of policy for ten years and is now taking effect as a reality, 'user choice' and other competitive measures carving out an appreciable share of total public VET funding.

Setting aside outright opposition to the training market, there are reasonable views that more could be done to make user choice successful and that other forms of market and consumer-oriented VET provision merit consideration. This might include training or learning entitlements, although these could be construed as a 'choice' measure just as much as a 'market' measure. Also, there continue to be calls for better information on the market and its providers and a more inclusive view of the 'clients'.

Theorists have argued that user choice is best suited to larger or well-developed training markets, although it also seems to have a place in encouraging training innovation. There are concerns about quality, as when user choice is deployed to service thinner regional markets. VET appears to be a market of diversity and quality rather than of commodities.

There may be room for improvement in the transparency and targeting of the main volume of VET funding not yet subject to competition. Recent resource shifts appear to target both high-growth areas of industry and low-growth areas less used to VET funding. There may be queries about the shares going to emerging or cutting edge areas of (export) industry that may have high skill needs but not recognised forms of entry-level training.

These are some of the training market measures suggested by the paper:

- sharpening training product information for the market and for tendering purposes
- improving public, comparative provider (RTO) information and feedback to support user choice
- targetting of user choice and competitive funding to large VET markets or areas of industry innovation where they may have the best impact
- putting more weight on apprentice and trainee views in allocating user choice funds and in market feedback

- reconsidering and testing new measures for choice, such as student learning entitlements or learning credits, for some sectors or higher levels of the training market
- improving policies and widening the avenues for 'cutting edge' industries and their emerging enterprises to gain a share of mainstream VET funds or user choice funds

Widening the avenues for structured training in enterprises

The proposition is that there are opportunities to increase industry participation in structured training and make it a better match to enterprise training needs.

Although statistics are improving, it is still not easy to compare the private and public training markets. It is often argued that governments should underwrite 'general' vocational training rather than the 'specific' company training market, although some role is seen for promoting structured training to non-training firms and for existing employees.

The evidence is that training levers (incentives and wages) have to be moved a fair distance to induce changes in enterprise behaviour. The evidence is also that the standard VET products and qualifications are always not the best fit to small business needs, as they do not respond directly to business problems and productivity concerns.

Although the new recognition frameworks are simpler and fairer than their predecessors, there is still evidence that they are complex for enterprises and variable in application across jurisdictions. While the existence of the ARF and training packages is a major step forward, these complex entities are not marketing tools in themselves. Meanwhile, there is (some) evidence of increasing enterprise and student use of RPL.

Against this background, governments and providers may forge a better match between public training and enterprise needs, sometimes with seed funding by:

- improving industry-by-industry tools advertising the practical implements and benefits of structured training
- promoting the productivity and workplace gains (if not skills per se) as prime motives for business participation in training
- persevering with on-the-job traineeships, an expressed small business preference
- seed-funding, perhaps via the training intermediaries, non-training enterprises that want to try or re-try structured training
- rewarding RTOs and encouraging enterprises to use RPL and workplace assessment, which brings enterprises into the formal training system short of their becoming RTOs
- encouraging cadres of enterprises that are prepared to become full RTOs, to diversify the market and provide downstream training to smaller firms
- maintaining, on equity and efficiency grounds, some VET funding and employer incentive support for existing employees undertaking training for qualifications

Adding pathways and learning models to the work of training intermediaries

The proposition is that further growth and maturity in the VET system will be encouraged by fostering diversity among the training intermediaries and introducing new learning-oriented intermediaries.

Australian has different training intermediaries—industry training bodies, group training companies, new apprenticeship centres, and until recently NETTFORCE—which in one way or another play important roles in fostering the quality and quantity of entry-level training. These agencies can be seen to have underpinned the overall growth of traineeships and the maintenance of apprenticeships in key industries and occupations.

Australia has elements of a training culture in terms of the sizeable private sector role in training and appreciable working age participation in public VET. Australian training intermediaries foster entry-level and CBT training rather than learning or skill exchange.

Perhaps a more efficient and effective use of available VET funds could be won if the intermediaries could do more to foster newer and innovative pathways to vocational skills and disseminate training and learning as research says enterprises want it, with business development and problem-solving coming ahead of CBT.

Measures related to the intermediaries which could be promoted include:

- encouraging or rewarding the existing intermediaries to collaborate to develop new pathways to skills on a regional basis
- ensuring that the intermediaries promote and service innovative pathways to new apprenticeship and certificate skills and changing the outcome measures to reward them for implementing useful new programs and pathways
- specifically, ensuring that the training system and one or other of its intermediaries develop 'casual' traineeships and pathways to skill outcomes
- introducing more of the newer-style industry and technology (for example, in manufacturing) centres of excellence into the Australian skill and training equation
- trialling business skill and learning exchanges, perhaps by adapting elements of the British UfI and the Australian skill centres for industry
- investigating the case for a major investment in a business skill and learning exchange for Australia.

Reviewing and reinforcing priorities for training measurement and quality

The proposition is that emerging directions in VET performance and quality should be encouraged and refined for better allocation of funds and better service to clients.

The continuing interest in traineeship quality is identified in the Schofield (1999) report, which points to concerns with quality under training devolution but also with centralised quality auditing. Concern with quality of trade, and other, training pathways is perhaps weaker.

In parallel with other Commonwealth–State work on government service quality and performance, ANTA is gradually refining the key performance measures for VET.

Against the background of this work, some areas of quality and performance could be reviewed or given greater prominence. Mentioned above are needs for greater measurement and reporting of vocational outcomes (alongside new apprenticeship outcomes) and private training investment (alongside public training investment).

Looking at the seven key VET indicators for 2001, one area which deserves greater prominence is comparative information on RTOs, to support user choice and also to give students more of a chance to participate in informed choice. These are sensitive issues in all sectors of education and training and for governments as the majority funders and purchasers of VET. They should be

addressed, as they have been to some extent with the universities, to close a loop on the credibility of the market.

The moves to measure skills outputs and stocks in VET against industry demand are to be commended. This work could be refined to produce better metrics of skill outcomes by industry. Comparing expenditure to recognised outputs (expenditure per 'module load' is the current measure) is useful. This work tends to service the supply-side questions (such as interjurisdictional efficiency) better than the demand-side (industry effectiveness). It would be equally useful to directly compare the outputs and skills in broad industry or occupational groups to the dollar VET resources put in.

Such measures might add transparency to the complexities of the national and State planning profiles and lead to identification of industry areas where funds can be redeployed give better overall value for money.

Depending on the proportion of VET funds given over to competitive processes, Billett's (1998) regionalised and inclusive model for funding allocation is also worth consideration.

Reiterating some earlier recommendations, there may be room to improve VET quality and performance management by:

- reviewing or upgrading the quality requirements for RTOs, especially those delivering large volumes of traineeships
- implementing measures to assess quality fairly and comparatively across the breadth of training pathways to traineeships, trades and equivalent middle-level occupations
- undertaking more regular measurement of middle vocational outcomes compared to new apprenticeships outcomes, private investment compared to public training investment
- governments developing or funding comparative information on RTOs ('good provider' guides) to place employers and trainees on an informed footing for choice
- accelerating the work on skill outputs and industry skill stocks, while ensuring it is given back simply and effectively to aid industry and regional input
- developing productivity measures which compare skills outputs and stocks to VET resource inputs

References

AEC (Australian Education Council), Mayer Committee 1992, *Key competencies*, Australian Education Council and Ministers of Vocational Education, Employment and Training, Canberra.

Allen Consulting Group 1994, *Successful reform: Competitive skills for Australians and Australian enterprises*, report to the Australian National Training Authority, Brisbane.

Anderson, D 1997a, 'Clients in the training market: Facts and fiction', in *Good thinking good practice: Research perspectives on learning and work*, 5th Annual International Conference on Post-compulsory Education and Training, Surfers Paradise, Centre for Learning and Work Research, Griffith University, pp.13–30.

—— 1997b, *Competition and market reform in the Australian VET sector*, Review of research series, NCVER, Adelaide.

—— 1997c, 'New apprentices and youth unemployment: Our progress as a nation', *Training Agenda*, vol.4, no.4, pp.14–16.

—— 1998, 'Training markets', in *Readings in Australian vocational education and training research*, eds C Robinson and P Thomson, NCVER, Adelaide, pp.143–217.

ANTA (Australian National Training Authority) 1996a, *Directions and resource allocations for 1997*, ANTA, Brisbane.

—— 1996b, *The report of the Industry Reference Group on the Implementation of the Modern Australian Apprenticeship and Traineeship System*, ANTA, Brisbane.

—— 1998, *Directions and resource allocations for 1998: Report to the Ministerial Council*, ANTA, Brisbane.

—— 1999, *Australian Recognition Framework arrangements*, ANTA, Brisbane.

ATSIPTAC (Aboriginal and Torres Strait Islander Peoples' Training Advisory Council) 1998, *New apprenticeship and traineeship opportunities for Aboriginal and Torres Strait Islander peoples*, ATSIPTAC, Dallas, Victoria.

Australian National Training Authority Board 1997, *The report of the ANTA Board on the implementation of New Apprenticeships (including user choice)*, ANTA, Brisbane.

Axarlis, S & Cheshire, C 1998, 'It's really all about giving options', *Australian Training Review*, no.27, NCVER, Adelaide, pp.14–15.

Ball, K & Robinson, C 1998, 'Young people's participation in and outcomes from vocational education and training', in *Australia's youth: Reality and risk*, Dusseldorp Skills Forum, Sydney, pp.66–73.

Barnett, K 1995, *Australian industry and enterprise training providers*, NCVER, Adelaide.

Billett, S 1998, 'Changing relationships between the vocational education systems and their clients', *Unicorn*, vol.24, no.3, Australian College of Education, Deakin West, ACT, pp 60–72.

Billett, S & Cooper, M 1998, 'Returns to enterprises from investment in vocational education and training', in *Readings in Australian vocational education and training research*, eds C Robinson and P Thomson, NCVER, Adelaide, pp.57–90.

Borthwick, J 1998, 'VET in 1996', in *The market for vocational education and training*, eds C Robinson and R Kenyon, NCVER, Adelaide, pp.102–24.

Brennan, T 1995, 'Meeting the challenges of the Australian Vocational Training System', in *AVTS conference papers*, IIR, Sydney.

Buchanan, J & Sullivan, G 1996, *Skills formation in the construction industry: Lessons from some recent innovations*, ACIRRT, University of Sydney.
Catts, R 1996, *Validating training benefits in the workplace*, VET Research Institute, University of Southern Queensland.
CLMR (Centre for Labour Market Research) 1997, *Evaluation of the impact of the financial incentives on the recruitment of entry-level trainees*, Department of Employment, Education and Training, Canberra.
Chapman, G & Thorn, W 1989, *Traineeships at TAFE: Impact at college level*, Department of Technical and Further Education, Sydney.
Comyn, P 1998, 'Training packages: Opportunity or threat', *Training Agenda*, vol.6, no.3, pp.9–10.
CITB (Construction Industry Training Board) 1998, *The future of training in the building and construction industry—a discussion paper*, Construction Industry Training Board, Adelaide, p.18.
Curtain, R 1995, 'Employers and access to publicly funded training', *Australian Economic Review*, vol.110, pp.93–100.
—— 1996a, *Is Australia locked into a low skills/low quality cycle?*, Working paper no.10, Monash University–ACER Centre for the Economics of Education and Training, Melbourne.
—— 1996b, *Meeting the training needs of flexible workers*, a national project managed by CIT and funded by ANTA, ANTA, Brisbane.
—— 1996c, 'Skills for small, high tech exporters: Overcoming the "transition" problem', in *The economic impact of vocational education and training*, eds C Selby Smith and F Ferrier, AGPS, Canberra, pp.170–8.
Dandie, S 1996, *Economic analysis of employment-based entry-level training: An analysis of trends in apprenticeship training*, Discussion paper 96/5, Centre for Labour Market Research, Murdoch University, Perth.
Dawkins, J 1988, *Industry training in Australia: The need for change*, AGPS, Canberra.
DETE (Department of Education, Training and Employment of SA) 1998, *The State strategic plan for vocational education and training*, DETE, Adelaide.
DEET (Department of Employment, Education and Training) 1992, *Department of Employment, Education and Training: Review 1992*, AGPS, Canberra.
—— 1993, *Department of Employment, Education and Training: Annual report 1992–93*, AGPS, Canberra.
—— 1994, *Career start traineeships: Guidelines*, DEET, Canberra.
—— 1995, *Training in transition: Evaluation of the AVTS pilot phase 1993 and 1994*, AGPS, Canberra.
DEETYA (Department of Employment, Education, Training and Youth Affairs) 1996, *Department of Employment, Education, Training and Youth Affairs: Annual report 1995–96*, AGPS, Canberra.
—— 1997, *Service requirements for the employment services request for tender*, DEETYA, Canberra.
—— 1998a, *Labour market for apprentices: Employer and group training company (GTC) experience in recruiting apprentices*, AGPS, Canberra.
—— 1998b, *Skills in Australia: Trends and shortages*, Analytical series 98/5, DEETYA, Canberra.
DEWSRB (Department of Employment, Workplace Relations and Small Business) 1998, *Report of the legislation review of the* Tradesmen's Rights Regulation Act, DEWRSB, Canberra.
DOLAC (Departments of Labour Advisory Committee) 1988, *A discussion paper on competency-based trade training*, DOLAC, Canberra.
Deveson, I (chair) 1990, *Training costs of award restructuring*, AGPS, Canberra.
Dockery, AM, et al. 1997, *The cost of training apprentices in Australian firms*, Discussion paper 97/3, Centre for Labour Market Research, Murdoch University, Perth.
Down, C 1998, 'Reflecting on practice: Research on a major change process within the Ford Motor Company (Australia) Ltd', paper presented to the NCVER Seventh Annual VET Researchers Conference, Charles Sturt University, Wagga Wagga.
Dusseldorp Skills Forum 1997, *School–industry programs: Some comparisons between the States and Territories*, DSF, Sydney.

ESFC (Employment and Skills Formation Council) 1990, *Industry training advisory bodies: Report of the National Board of Employment, Education and Training and its Employment and Skills Formation Council*, AGPS, Canberra.
—— (L Carmichael, chair) 1992, *The Australian Vocational Certificate Training System*, National Board of Employment, Education and Training, Canberra.
—— (P Kirby, chair) 1996, *The good, the bad and everything in between: The quality and relevance of* Working nation *training*, National Board of Employment, Education and Training, Canberra.
Finn, B (chair) 1991, *Young people's participation in post-compulsory education and training*, AGPS, Canberra.
FitzGerald, V 1998, 'Market frameworks in VET', in *The market for vocational education and training*, eds C Robinson and P Kenyon, NCVER, Adelaide, pp.11–22.
Fooks, D 1998a, 'Crunch time: Living under the new ANTA Agreement', *Training Agenda*, vol.6, no.1, pp.24–7.
—— 1998b, 'Industry partnership: Leaning on a broken reed', *Training Agenda*, vol.6, no.3, pp.15–16.
Foster, S 1998, *Competency-based training in Victoria*, OTFE, Melbourne.
Fraser, D 1996, *The training guarantee: Its impact and legacy 1990–1994*, DEETYA, Canberra.
Gibb, J 1998, 'Vocational education and training and small business', in *Readings in Australian vocational education and training research*, eds C Robinson and P Thomson, NCVER, Adelaide, pp.91–142.
—— 1999, 'The relevance of a training culture to small business in Australia', in *Lifelong learning: Promoting a training culture*, eds C Robinson and K Arthy, NCVER, Adelaide, pp.39–62.
Glover, L 1998, 'International Fibre Centre: A study of training innovation', in *Future training issues in Australia's industries*, a collection of the papers presented at the NCVER 1998 conference: Industry Training Outlook '98, Sydney, 12–13 October, ed. P Curtin, NCVER, Adelaide, pp.105–7.
Guthrie, H & Barnett, K 1996, *Training and enterprise bargaining*, NCVER, Adelaide.
Hager, P 1998, 'Quality assurance in vocational education and training', in *Readings in Australian vocational education and training research*, eds C Robinson and P Thomson, NCVER, Adelaide, pp.340–62.
Hawke, A & Wooden, M 1997, *The changing face of Australian industrial relations*, National Institute of Labour Studies, Adelaide.
Hawke, G 1992, 'The national training reform agenda: An Employment and Skills Formation Council and personal perspective', in *What future for technical and vocational and education and training?*, vol.2, conference papers, ed. W Hall, NCVER, Adelaide, pp.179–86.
Hawken, P 1993, *The ecology of commerce*, HarperCollins, New York.
House of Representatives Standing Committee on Employment, Education and Training 1991, *Skills training for the 21st century: A report on skills training: Apprenticeships and traineeships*, AGPS, Canberra.
Jarvis, J 1998, 'Four paths for printing', *Australian Training Review*, no.27, NCVER, Adelaide, p.10.
Jenkins, R 1999, 'Training challenges in Australia's manufacturing industries', in *Future training issues in Australia's industries*, a collection of the papers presented at the NCVER 1998 conference: Industry Training Outlook '98, Sydney, 12–13 October, ed. P Curtin, NCVER, Adelaide, pp.25–29.
Keating, PJ, House of Representatives 1994, *Working nation: Policies and programs*, AGPS, Canberra.
Kelleher, J 1989, 'Australian Traineeship System: An analysis of the curricular design features', masters degree paper, available from VET Clearinghouse, Department of Vocational Education & Training, Hobart.
Kemp, D, House of Representatives 1996, *Training for real jobs*, AGPS, Canberra.
Kilpatrick, S & Bell, R 1998, *Vocational education and training in rural and remote Australia*, NCVER, Adelaide.

Kinsman, M 1998, 'Users, goals and user choice in vocational education and training', *Different drums, one beat: Economic and social goals in education and training*, Monash University–ACER Centre for the Economics of Education and Training (CEET) and NCVER, Adelaide, pp.128–36.
Kirby, P (chair) 1985, *Report of the Committee of Inquiry into Labour Market Programs*, AGPS, Canberra.
KPMG Management Consulting, with Bob Marshman & Associates, 1998, *Impact of the growth of labour hire companies on the apprenticeship system*, ANTA, Brisbane.
Lamb, S, Long, M & Malley, J 1998, *Access and equity in vocational education and training: Results from longitudinal surveys of Australian youth*, ACER research monograph no.55, ACER Press, Melbourne.
Lewis, PET & Kosky, P 1998, *Youth employment, unemployment and school participation*, Discussion paper 98/3, Centre for Labour Market Research, Murdoch University, Perth.
Lundberg, D 1998, 'Entry-level training', in *Readings in Australian vocational education and training research*, eds C Robinson and P Thomson, NCVER, Adelaide, pp.218–44.
Malley, J 1996, 'Education, training and employment: Tectonic plates of doctrine, policy and change in a knowledge-based society', *Australian Economic Review*, 116.
—— 1997, 'Entry-level training and New Apprenticeships: Delivery and funding options', in *Different drums, one beat: Economic and social goals in education and training*, Monash University–CEET and NCVER, Adelaide, pp.227–39.
Mansfield, B 1999, 'Meeting employee training requirements', *in Future training issues in Australia's industries*, a collection of the papers presented at the NCVER 1998 conference: Industry Training Outlook '98, Sydney, 12–13 October, ed. P Curtin, NCVER, Adelaide, pp.15–23.
Marshman, R 1998, *Employment of apprentices: On the brink of crisis*, Bob Marshman and Associates, Melbourne.
Mathers, R & Saunders, J 1995, *Review of the National Training Wage generic training packages*, an evaluation study conducted by the NCVER, Department of Employment, Education and Training, Canberra.
McPhee, J, Shearer, S & Jayem Business Services 1997, *Report of consultations on possible extension of new apprenticeships and traineeships into schools*, VECCI, Melbourne.
Miles Morgan Australia 1999, 'Alternative pathways to AQF 3 qualifications in trade occupations: A brief discussion paper', a national project managed by WA Department of Training and funded by ANTA (unpublished).
Misko, J 1999, *Transition pathways: What happens to young people when they leave school*, prepared for DETYA, NCVER, Adelaide.
Mitchell, R, Robertson, I & Shorten, A 1999, *Law and policy in vocational education and training: A contemporary survey*, NCVER, Adelaide.
Moran, T 1998, 'Competitiveness is the key', in *The market for vocational education and training*, NCVER, eds C Robinson and R Kenyon, Adelaide, pp.175–85.
Murphy, C 1998, 'Where the jobs are: The outlook for jobs', *in Future training issues in Australia's industries*, a collection of the papers presented at the NCVER 1998 conference: Industry Training Outlook '98, Sydney, 12–13 October, ed. P Curtin, NCVER, Adelaide, pp.43–68.
Natarajan, L & Misson, E 1998, *Apprenticeships and traineeships: Victorian trends*, State Training Board of Victoria, Melbourne.
NBEET (National Board of Employment, Education and Training) 1994, *The role of schools in the vocational preparation of Australia's secondary school students: Final report*, AGPS, Canberra.
NCVER (National Centre for Vocational Education Research) 1997, *Employer satisfaction with vocational education and training 1997: National report*, NCVER, Adelaide.
—— 1998a, *Australian apprentice and trainee statistics 1997–98*, NCVER, Adelaide.
—— 1998b, *Industry training monograph: The overview*, NCVER, Adelaide.

NCVER 1998c, *Research at a glance: Small business and vocational education and training*, NCVER, Adelaide.
—— 1998d, *Statistics 1998 at a glance*, NCVER, Adelaide.
—— 1998e, *TAFE graduate destination survey 1998: National report*, NCVER, Adelaide.
—— 1999, *Australian apprentice and trainee statistics 1998*, vol.4, no.6, NCVER, Adelaide.
National Electrical Contractors Association 1998, *Barriers to the employment of apprentices in the electrical, electronic and communications industry*, Austech forum report, undertaken by NECA (Melbourne) for ANTA.
NSW DET (New South Wales Department of Education and Training) 1998, 'Vocational education and training in New South Wales schools', *Training Agenda*, vol.6, no.1, pp.8–9.
Noble, C, Hill, D, Smith, E & Smith, A 1998, 'Policy challenges in the implementation of user choice in the Australian training market', paper presented to the NCVER Seventh Annual VET Researchers Conference, 14–17 July, Charles Sturt University, Wagga Wagga.
—— 1999, 'Policy issues in the implementation of user choice in the Australian training market', *Journal of Vocational Education and Training*, vol.51, no.1, pp.5–22.
Norris, K, Dockery, AM & Stromback, P 1997, *The social return to apprenticeship training*, Discussion paper 97/6, Centre for Labour Market Research, Murdoch University, Perth.
Office of the ACT Administration 1987, *The development of employment and training responsibilities in the ACT: A community discussion paper*, AGPS, Canberra.
OTFE (Office of Training and Further Education) 1997, *Outcomes from vocational education and training for employers and participants*, OTFE, Melbourne.
—— 1998, *Benefits to employers from an investment in training: Literature review*, OTFE, Melbourne.
Pickersgill R & Walsh M 1998, 'The experience of training reform in Australia', paper presented to the NCVER Seventh Annual VET Researchers Conference, Charles Sturt University, Wagga Wagga.
RERU-GREAT (Regional Economic Research Unit and Group for Research in Employment and Training [Charles Sturt University] and Western Institute of TAFE) 1998, *An economic evaluation of alternative methods of delivering employer provided electrical trade and mechanical engineering trade apprenticeship training*, NCVER, Adelaide.
Robinson, C 1998a, 'An overview of Australian vocational education and training research', in *VET research: influencing policy and practice*, eds J McIntyre and M Barrett, Australian Vocational Education and Training Research Organisation, Sydney, pp.12–22.
—— 1998b, 'The VET product and the development of the training market', in *The market for vocational education and training*, eds C Robinson and R Kenyon, NCVER, Adelaide, pp.102–24.
—— 1999a, 'Promoting a training culture in industry', in *Lifelong learning: Promoting a training culture*, eds C Robinson and K Arthy, NCVER, Adelaide, pp.1–22.
—— 1999b 'The development of traineeships and the impact of research', in *The impact of R&D on VET decision making: A range of case studies*, eds C Selby Smith, NCVER, Adelaide.
Rural Training Council of Australia 1999, *National rural and related industries strategic plan 1999–2000 for vocational education and training*, RTCA, Kingston, ACT.
Schofield, K 1999, *Independent investigation into the quality of training in Queensland's traineeship system*, Department of Employment, Training and Industrial Relations, Brisbane.
Segal, L & Johnson, B 1987, *Standards-based trade training—a discussion paper*, Department of Employment, Education and Training, Canberra.
Selby Smith, J, Selby Smith, C & Ferrier, F 1996, *Key policy issues in the implementation of user choice*, Working paper no.8, Monash–ACER Centre for the Economics of Education and Training, Melbourne.
Senate Employment, Education and Training References Committee 1995, *Report of the inquiry into the Australian National Training Authority*, Parliament of Australia, Canberra.
Sloan, J 1994, *The market for training in Australia*, Working paper no. 131, National Institute of Labour Studies, Flinders University of SA, Adelaide.

Smith, A 1999, 'The elements of a training culture', in *Lifelong learning: Developing a training culture*, eds C Robinson and K Arthy, NCVER, Adelaide, pp.73–80.
Smith, E, Hill, D, Smith, A, Perry, P, Roberts, P & Bush, T 1996, *The availability of competency-based training in TAFE and non-TAFE settings in 1994*, research commissioned by DEET, AGPS, Canberra.
Smith, L 1998, *Apprenticeships and traineeships: Queensland trends*, Department of Employment, Training and Industrial Relations, Brisbane.
—— 1999, *Impact of user choice on the Queensland training market: A progress evaluation*, Department of Employment, Training and Industrial Relations, Brisbane.
State Training Board, Victoria 1989, *Reform of the apprenticeship system: A discussion paper*, State Training Board, Melbourne.
Steering Committee (Steering Committee for the Review of Commonwealth / State Service Provision) 1998, *Report on government services*, vol.1, Industry (now Productivity) Commission, Melbourne.
—— 1999, *Report on government services 1999*, vol.1, Productivity Commission, Melbourne.
Sweet, R 1995, 'The naked emperor: Training reform, initial vocational preparation and youth wages', *Australian Economic Review*, 110, pp.101–108.
—— 1996, 'How well do our entry-level training models fit the labour market of the 1990s', in *Rethinking work: Re-inventing education*, Tasmanian Education Consortium, Hobart.
Taylor, R 1996, *Report of the Review of the ANTA Agreement*, AGPS, Canberra.
VandenHeuvel, A & Wooden, M 1999, *Casualisation and outsourcing: Trends and implications for work-related training*, NCVER, Adelaide.
Ward, C 1995, 'Update on the Australian Vocational Training System' in *AVTS (Australian Vocational Training System) News*, no.1, pp.2–3.
WADT (Western Australian Department of Training) 1996, *Developing the training market*, an ANTA national project managed by WADT, ANTA, Brisbane.
—— 1997, *New Apprenticeships: Making it work*, Western Australian Department of Training, Perth.
Wilson, J & Lilly, M 1996, *Recognition of prior learning*, NCVER, Adelaide.
Wooden, M 1998a, 'Employer perceptions of ITABs: Survey evidence' in *Different drums, one beat: Economic and social goals in education and training*, Monash University–Centre for the Economics of Education and Training and NCVER, Adelaide, pp.208–18.
—— 1998b, 'The labour market for young Australians', in *Australia's youth: Reality and risk*, Dusseldorp Skills Forum, Sydney, pp.29–50.