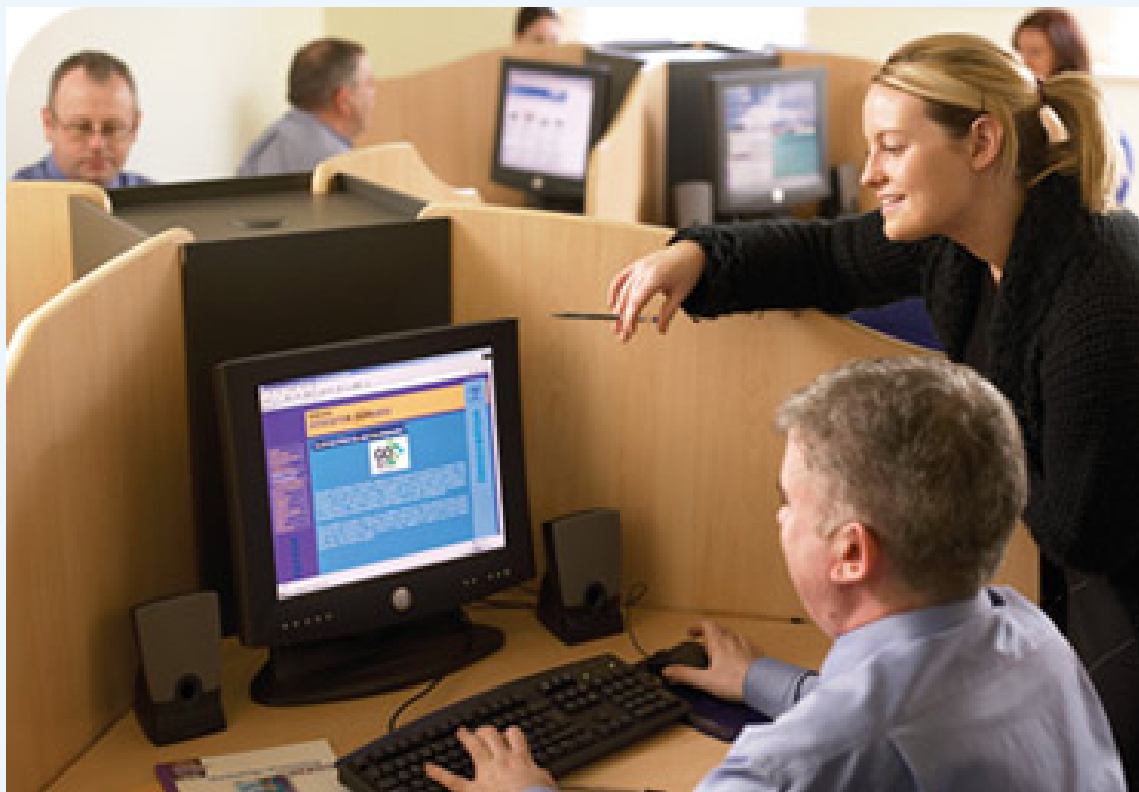


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Vendor Training in NSW



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Preface

This report was commissioned by the New South Wales Department of Education and Training as a scoping study of vendor training in NSW. This is the training provided by the manufacturers and/or suppliers of equipment and/or software to the end-users. The report covers both vendor *certified* training—where the vendor provides assessment and certification of skills—and vendor training which is not linked to any form of certification. There may, or may not, be links between this training and the formal accreditation system. Indeed, this relationship between accredited training and vendor training is one of the key themes pursued in this report.

The report is far from being a comprehensive study of vendor training. With very little known about this topic, this report aims to be a preliminary investigation of the field. It examines some of the existing literature on vendor training and presents some findings from interviews conducted in the field with ITABs, trainers and vendors. In addition it presents a large amount of unpublished data based on the unit records files of a number of surveys conducted by the Australian Bureau of Statistics (ABS) and the National Centre for Vocational and Educational Research (NCVER).

I am particularly grateful to the following individuals and organisations for their assistance with the fieldwork: Leo Darby (Web Technology and E-Commerce, Sydney TAFE), Regina Dunlea (WRAPS), Douglas Greening (Construction Industry ITAB), Louise Heppell (Cisco Systems Australia), Bob Paton (Australian Industry Skills Council and Metal Industry ITAB), Franco Salaun (Telecommunications and Networks, Sydney TAFE), Bob Snedden (Communications ITAB), Phil Smith (Joy Mining Machinery), Allan Wetherell (Printing and Graphics, Sydney TAFE). I would also like to thank Louise Brooks from NCVER for assistance in obtaining data files.

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Introduction & Key Findings

◇ 1.1 Introduction

This report is a scoping study of vendor training in NSW. With very little published information available, it seeks to bring together what material is available. Some useful material can be found in various chapters within published reports, and an overview of this is offered in Chapter 2 of this report. Obviously, talking to key players in the field can also provide valuable insights into how vendor training operates. Some of these people have been interviewed and summaries of their comments are presented in Chapter 3. A theme which links both these chapters is the relationship between the formal accredited training system and vendor training. Of course, other areas of unaccredited training—such as that provided by community colleges or by industry associations—are also important and references to these arise throughout the report.

Chapters 4 and 5 are quantitative, drawing extensively on unpublished survey data. These data come from confidentialised unit record files, which allows for the production of very detailed tables. The major limitation with this approach is the small sample size which often results, particularly at the state

level. For this reason, all the tables in this report show the sample size (the N) and the reader should treat with caution those findings based on very small sample sizes. Despite this caveat, the quantitative data are particularly valuable for the patterns they reveal.

In Chapter 4 I look at employer use of vendor training. I examine industry and occupational patterns, and what motivates employers to undertake this form of training. In Chapter 5 I look at employees who participate in vendor training. Not only does this provide considerable detail on the participants—such as their demographic and workplace background—but it also allows us to examine changes over time. The data in this chapter spans the period 1989 to 2005, a reasonably long time series.

Finally, while this report seeks to understand the situation in NSW, some of the information is only available in a reliable fashion at the national level. Fortunately, chapters 4 and 5 provide both national and NSW data, so it is possible in these chapters to discern how NSW compares with the national profile. When the NSW data is too sparse, the national figures are often a useful pointer to what the general patterns are likely to be.

◇ 1.2 Key Findings

1.2.1 Literature findings

Some of the literature on adult education suggests that vendor training is particularly useful for providing knowledge on *how equipment works*, but workers themselves are better placed to understand *how it should be used*.

The literature also suggested a very uneven estimation by employers of the value of vendor certification. Most certificates were seen as inferior to VET qualifications, but some particular vendor certificates were highly valued.

Some studies suggested that enrolment in vendor training was more likely by managers or contractors, who then passed on their knowledge to apprentices and other employees.

Vendors could maintain industry standards through their warranty arrangements, and thereby avoid offering training.

It was argued that the key advantage which vendor training has over the formal system is its up-to-date content, particularly in areas of rapid technological change. The main disadvantage of vendor training, advanced in some studies, was that its ultimate focus can be on selling products rather than providing training per se. This can lead to an emphasis on building customer loyalty rather than providing high quality training.

1.2.2 Field work findings

In retail trade, vendor training is growing strongly, spurred on by new developments in new technology (such

as Radio Frequency Identification) and by the need for up-to-date product knowledge. Precise product knowledge is increasingly important—particularly where safety is concerned—but RTOs are not always well placed to provide employees with this.

In construction, new technology is less of an issue than in most other industries. Over time, much vendor training has been absorbed into the formal training system, partly because of corruption issues around fraudulent qualifications. Among small contractors access to vendor training takes place through community colleges and small providers, though self-learning remains a major means for acquiring knowledge, particularly in software areas. Among large building companies, vendor training (for project management) is built into the overall system which the client buys. This tends to be specialised and customised to particular projects. As a result there is little transferability between projects for para-professionals. At the trade level, however, most skills remain generic and therefore transferable.

In manufacturing technological change is rapid, but the industry tends to split between a high-tech end and a low-tech end. For the former, vendor training is highly specialised and is provided by manufacturers (or their agents) with a specific focus on a particular piece of equipment. In areas requiring software—such as rapid prototyping—the technology has become much more complex. At the same time, however, working with software has become increasingly simplified, thereby reducing the training component. At the low tech end, traditional generic skills remain the

bedrock. The main issue is 'gap' training, and who should fund it. In addition, there remains a need for vendor training in materials safety since data sheets remain insufficient.

An interview with a coal mining equipment supplier highlighted the boundaries within which vendors operate when it comes to training. They are reluctant to become RTOs and emphasise that their core business is selling equipment and their training activities must play a support role here. Most of the changes in the industry have been driven by safety rather than technological change, and vendor training can be seen as complementary to overall industry training.

In Information and Communications Technology (ICT) vendor training is of central importance. Partly this is because of the pace of technological change and also because a number of key players have set industry standards. The relationship between the formal training system and vendors is quite complex. In some cases, a parallel system exists: the same skills may be acquired (more thoroughly) by students at TAFE as part of a semester course or picked up (with less hands-on experience) by employees taking short intensive courses offered by private providers.

Another example of the interesting relationship between vendors and the formal training system is the Cisco Network Academies. These exist in community colleges, schools, TAFE colleges and universities and provide instruction in networking technology skills. Because these skills are largely generic, and also international, students graduating from these Academies are well placed to move through the industry (though certification itself is provided by the vendor).

Finally, the fieldwork in ICT also emphasised the importance of recognition of prior learning (RPL). A

great deal of vendor training happens in workplaces but employees are not well placed to make use of this for their further advancement. With adequate RPL processes, this vendor training could become the basis for formal training outcomes and for future career mobility for these employees.

1.2.3 Survey findings: employers

Vendor training is the second most common type of unaccredited training utilised by employers, coming behind private providers but ahead of industry associations. In 2005 23 per cent of employers used vendor training as their main training provider. By 2007 this figure had dropped to 15 per cent.

When employers were asked for their reasons for using vendor training, three main reasons were given: vendor trainers were the only suitable provider; expertise was not available elsewhere; and vendors provided specialised knowledge relevant to the industry.

NSW employers made up 40 per cent of all employers making use of vendor training. Within NSW, vendor training is the second most common type of unaccredited training utilised by employers. In 2005 23 per cent of NSW employers used vendor training as their main training provider. By 2007 this figure had dropped to 20 per cent.

In NSW, the most important reason given by employers for choosing their unaccredited training provider was the suitability of the content of training courses. This was followed, in decreasing order of importance, by the following reasons: the trainers were the only suitable provider; the trainers provided specialised knowledge relevant to the industry; and the expertise needed was not available elsewhere.

1.2.4 Survey findings: employees

From 1989 to 2001 employee numbers in vendor training remained largely static. In 2005 there was a boost in the numbers undertaking vendor training, but it is unclear how much this was due to changes in survey methodology. In relative terms, the role of vendor training has declined steadily from 1989, when it accounted for 16 per cent of enrolments in external training courses, to 2005, when it accounted for only 8 per cent.

In terms of the contribution made by vendor training to the national training effort, the proportion of the employee workforce engaged in this form of training has grown from 1.7 per cent (1989) to 2.4 per cent (2005). This has occurred during a period when all external training courses saw their reach grow from 11 per cent to 30 per cent.

These figures suggest vendor training is static, if not in decline. However, it must be kept in mind that these figures do not take account of people undertaking vendor training who are not employees engaged in external training courses. The major omission here are the self-employed, a group who are particularly important in industries like construction and ICT. Nor do these figures include individuals who have undertaken vendor training in their own time, nor students enrolled in Cisco Network Academy courses.

The industries with the highest share of vendor training participants are retail trade and education, health and community services. There has been a large decline in the share of vendor training held by manufacturing over the period 1989 to 2005. The occupations with the largest shares are tradespeople, professionals and salesworkers. The growth in the latter group is one of the most notable trends over the period 1989 to 2005. At the same time, the growth in the share of vendor training

held by casuals has grown strongly. It is likely that these two trends are linked.

Older employees have increased their share of vendor training over the period 1989 to 2005. This has come at the expense of younger employees, though teenagers have recovered their position in more recent years.

When it comes to the transferability of skills, employees report very favourable results. Around 95 per cent of all participants in vendor training indicate that the skills acquired in their courses can be transferred to another employer.

NSW holds about 35 per cent of the national share of vendor training. This share rose slightly in 1997 before settling back to its long term level. Over time, Victoria's share has declined while Queensland's has grown steadily.

Within NSW, vendor training was in decline from 1989 to 2001, but a notable turn-around occurred in 2005. Caution is warranted, however, because of changes in survey methodology. Generally, the NSW picture largely resembles the national picture. In relative terms, the share of external training held by vendor training dropped from 14 per cent to 9 per cent between 1989 and 2005.

The static nature of vendor training within NSW is also evident in the proportion of the employed workforce engaged in this kind of training. This figure increased from just 2.3 per cent in 1993 to 2.6 per cent in 2005. What's more, this took place during a period of strong growth in external training. Over this period, the proportion of the employed workforce engaged in all forms of external training increased from 17 per cent to 30 per cent. Nevertheless, as noted above, these figures which measure the contribution of vendor training to the state training effort are likely to be understated, omitting as they do the presence of the self-employed and non-working students.

◇ 1.3 Glossary

Most abbreviations are defined when they are first used. The following abbreviations are used more frequently in this report.

ASCO	Australian Standard Classification of Occupations
ABS	Australian Bureau of Statistics
AQF	Australian Qualifications Framework
CAD	Computer Aided Design
CURF	Confidentialised Unit Records Files
EBA	Enterprise Bargaining Agreement
IBSA	Innovation and Business Skills Australia
ICAC	Independent Commission Against Corruption
ITAB	Industry Training Advisory Board
IT	Information Technology
ICT	Information and Communications Technology
NCVER	National Centre for Vocational and Educational Research
PLC	Programmable Logic Controls
RFID	Radio Frequency Identification
RPL	Recognition of prior learning
RTO	Registered Training Organisation
SEUV	Survey of Employer Use and Views of the VET System
TAFE	Technical and Further Education
VET	Vocational Education and Training

Finally, the terms ‘vendor’ and ‘equipment supplier or manufacturer’ are used interchangeably throughout the report. The latter phrase is often used in tables, since this is the original term used in the surveys.

◇ 2

Overview of the literature

This chapter presents an overview of some of the literature which deals with vendor training in Australia. None of this literature contains specific studies of vendor training in Australia, but a number of reports contain case studies or similar material which look specifically

at this issue. This literature can be categorised as falling into three main domains:

1. adult education and workplace learning;
2. unaccredited or informal training;
3. industry-related studies.

◇ 2.1 Adult education and workplace learning

Examples of this category are found in the work of Billett (see [Billett, 1994a,b, 1998](#)) who emphasises the primacy of pre-existing knowledge and skills among the workforce. The studies cited here draw upon field work in coal mining to explore how workers experience vendor training. He makes the interesting observation that vendor training can be more valued in the workplace than formal institutional training, because it is more practical for the particular tasks at hand. As one of his informants put it: 'Vendor training hits the mark—it's specific—hands-on . . .'. And another noted: 'Vendor training allows you to look at machine when its stopped,

allows you to apply prior knowledge—it's practical and applicable'.

Yet, at the same time, the specific nature of each workplace's operations can also render vendor training less relevant. As another informant observed: 'Vendor training for operations is 'no good' . . . we know more about it than they do—operations expertise resides on-site' ([Billett, 1994a](#), pp. 13–14). Essentially workers were drawing a distinction between how a piece of equipment worked, and how it should be used. They valued vendor training for the former, but prioritised their own knowledge in the case of the latter ([Billett, 1994b](#)).

◇ 2.2 Unaccredited or informal learning

While this category is similar to the last one, it's emphasis is more on the value employers place on informal learning rather than the workplace knowledge perspective just outlined. In some

cases, the contrast is between formal VET qualifications and the certification provided by vendors. In one study of the ICT industry, [Misko et al. \(2007, pp. 28–29\)](#) reported survey findings

which showed that ‘employers rated certification or vendor product accreditation as having a major influence on their hiring decisions. These were especially valued if they were relevant to a candidates skill base.’ The authors went on to note, however, that employers often used vendor qualifications as an ‘initial screening device’ but then made a final decision based on the ‘personal traits and attributes of candidates’. They did not discuss how vendor training was actually utilised in the workplace.

In their study of employers and nationally recognised training, [Smith et al. \(2005, pp. 12, 16\)](#) observed that vendor training sits alongside the more formal system as a form of ‘niche

training’. Especially for small businesses, or for those ‘developing innovative products and services’, vendor training can be more appropriate than VET. This is particularly so when new technologies are involved.

In another study which looked at how employers viewed training qualifications, [Ridout et al. \(2005\)](#) reported survey findings which suggested employers regarded certificates which did not come from a VET or tertiary institution as not really amounting to educational *qualifications*. An important exception to this, however, were certificates given by some associations (such as Professional Diving Instructors) and by some vendors in areas like information technology (for example, Microsoft certification).

◇ 2.3 Industry-related studies

This area of research provided some of the most detailed information on vendor training, with the report by [Woyzbun et al. \(2006\)](#) containing extended analysis of the role of vendor training in the electrical and communications industries. While their fieldwork was not as extensive as they might have wished, they did gain much valuable information on the nature of the training and the workers being trained. An important insight was that in the area of electrical systems:

Vendor training was typically undertaken by employers, site/project managers and contractors/owners who tended to pass knowledge gained on to apprentices and other employees ([Woyzbun et al., 2006, p. 66](#)).

Another aspect of the electrical industry that was noteworthy was the way in which its training operated outside the VET system, with vendor training remaining within its own separate

domain of industry recognition or equipment-specific outcomes. Consequently, such training did not form part of the qualifications recognised under the Australian Qualifications Framework.

The authors contrasted this situation with that found in telecommunications, where vendor training included nationally accredited competencies and contributed to ‘nationally recognised qualifications, as well as meeting Australian (and in some cases, international) industry standards.’ ([Woyzbun et al., 2006, p. 68](#)).

While formal accreditation for vendor training may have been absent in the electrical industry, industry standards were maintained in a number of ways. In particular, vendors could use their warranty arrangements to enforce minimum standards. For example,

this particular vendor requires that at least 50% of workers employed by a contractor in installing the vendors products should have completed training to the level required for ISO 11801 in order for the product warranty conditions to be met (Woyzbun et al., 2006, p. 73).

As noted earlier, where new technology is involved, vendor training comes to the fore. The TAFE system was seen as unable to remain up-to-date:

While traditional generic training provided in accordance with training packages is comprehensive, it often lacks the currency and specificity needed to deal with constantly changing technology. Vendor training, on the other hand, may lack comprehensiveness but it certainly meets the needs of companies and their workers (Woyzbun et al., 2006, p. 76).

There were two dimensions to this new technology issue. From a TAFE perspective, vendor training filled a gap:

I think vendor training is a good way for people to get into leading edge technology very quickly.' (TAFE training provider, quoted in Woyzbun et al. (2006, p. 77)).

From the perspective of employers, their priority was to remain competitive in the adoption of new technology. For them, vendors had to be at the cutting edge of technology and their training had to be up-to-date to reflect this. From a more sober point of view, some vendor training appeared more focussed on building customer loyalty rather than meetings the emerging needs of businesses.

This theme of new technology and up-date training was also emphasised in a study of the training needs of emerging industry by Misko and Saunders (2004). They argued for a complementarity between vendor trainers and VET trainers, suggested that co-operative relationships would see VET trainers gaining access to the latest industry developments and vendor trainers gaining access to teaching facilities and expertise (2004, p. 35).

◇ 3

Field work interviews

The field work interviews were conducted in the period April to June 2008 and included representatives of ITABs, TAFEs and vendors. The industries covered were retail trade, manufacturing, mining, construction and information and communications technology (ICT). The key themes pursued in the interviews were the

relationship between specific training and generic training, and between vendor training and the formal training system. As with the literature review, the importance of new technology emerged in the interviews. Those industries where this was more relevant were the industries where vendor training was more prominent.

◇ 3.1 Retail trade

New technology was an important issue here, particularly among the large retailers. The move towards Radio Frequency Identification (RFID) among some large supermarkets (Aldi and Woolworths, for example) has implications for vendor training within this sector. It is unclear, however, how many people will be trained in this area since RFID is a technology which is labour-displacing. The RFID chips allow for a complete supply-chain history of a product, so this has implications beyond the retail outlet.

The relationship between nationally recognised training packages and vendor training is an important issue in retail. It covers both emerging technologies, product knowledge and particular kinds of equipment. For example, training competencies may state 'According to equipment requirements' but RTOs require precise information on such requirements.

Similarly, RTOs need precise product information when safety issues are involved (for example, baby products), yet they may not have that kind of information. There is a tendency by RTOs to assume that because employees work in the industry, they already have appropriate product knowledge. Yet a system of 'Chinese whispers' may be prevalent in some retail settings, where high turnover of staff means that word-of-mouth is the predominant manner for disseminating product knowledge.

The division between large and small retailers is an important one from the point of view of vendor training. The issue of new technology features prominently for the former, product knowledge is important to both, and software systems are an issue for the latter. For example, small retailers like news agencies have quite complex accounting requirements (because of

their relationships with publishers and with their outlets). Consequently, software systems like MYOB are crucial to their operations, and vendor training

can be important in mastering that software.

◇ 3.2 Construction

There are some interesting parallels between retail and construction, as well as some difference. The large business / small business distinction is also important in this sector, but new technology is not really an issue. The smaller contractors are in a similar situation to small retail businesses when it comes to software systems like MYOB or spreadsheets. In addition, some use estimating packages (like Buildsoft) or project management software (by Microsoft, for example), so there is considerable scope for vendor training at that level of the industry.

This need is met mainly through community colleges (which may use vendor lecturers), through trade associations, and through self-learning. The typical learning situation can be one of 'Monkey-see, monkey-do', followed by a phone call to the vendor or agent as a last resort. There are also informal networks, where contractors share experiences. Self-learning is also prevalent at the para-professional level.

Learning spreadsheets remains the most common form of software training for contractors. Cost pressures make commercial courses problematic, particularly if the training is pitched at too low a level because contractors feel they are wasting their valuable time.

For the larger employers, the software training may come from vendor agents after they have set up a system for the client. Project management software is an example of this. For the very large employers, in building construction for example, the dominant system is the

use of customised software packages. These are written by IT specialists and need to encompass all aspects of the project. The supplier not only provides documentation, but does all of the in-service training. While this approach involves re-inventing the wheel, it is also part of the commercial advantage that a large construction company has when it tenders for projects. When workers move between projects, they need to relearn everything. Most of this applies at the para-professional level, since knowledge at the trades level remains largely generic.

Over time there has been a process of vendor training becoming incorporated into the formal training system. This has been driven by a number of factors but ICAC findings on corruption (in particular, the fraudulent qualifications issue) within organisations like Workcover and the Department of Fair Trading, have been influential. RTOs now play the role of certifying training and qualifications within the industry and licensing is now more closely tied to formal qualifications. For example, a painter can put Dulux-approved applicator on their letterhead, but it won't help with their licensing any more.

Traditionally, vendors have had links with training in order to sell their products and to make sure products are used properly or to their full capacity. Some are now pulling back from that role, and using specifications and warranty clauses to maintain standards. For example, Boral no longer provides training for its pavers, leaving that for TAFE.

At same time, the ITAB promotes integration between vendor training and accredited training. It encourages vendors to go one step further and make their training fit within the competencies

framework. For example, if the vendor is providing training in vacuuming asbestos or lead paint, then not much more is required to align this with competencies for handling hazardous wastes.

◇ 3.3 Manufacturing

The issue of technological change is particularly relevant in manufacturing. Vendors play a major role in training because of the pace of technological change. Areas like PLC switches or new laser technologies for rapid prototyping require specialised knowledge that can only come from vendors.

The knowledge base is polarising, with very specialised knowledge needed at one end, and increasingly deskilled processes at the other. For example, large aircraft (like the Airbus) now use special polymers in their airframes, and wireless technologies are much more common. Training can be very specific, for example, servicing Boeing 767 brakes. Such training is conducted by Qantas or by Boeing. At the other end of the scale, in general aviation, light aircraft still use cables and in many cases the rest of the technology is not much more complicated than a car engine.

The deskilling is partly though 'black box' technology. Components themselves are very complex, but working with them is very simple. A technician now diagnoses the fault, and no longer fixes

it but just returns it to the vendor. Similarly with computer aided activities: software becomes more complex in what it can do, but at the same time, the interaction between the software and the end-user becomes much simpler.

The issue this raises is one of 'gap training'. For example, the public training system can provide generic CAD training, but vendors need to provide specific training on their package. Should public funding be used for such gap training? This is a major policy issue around the role of vendor training.

In terms of the fit between vendor training and generic training, this remains an ongoing issue. On the one hand, generic skills are always fundamental. A person may be competent with CAD, but they will still need 'pencil skills' when working on a site. Conceptual skills thus remain core.

In addition, vendor training can often be too narrow, so generic skills remain essential. However, generic skills can sometimes be insufficient when it comes to materials safety. Workers need to go beyond the data sheets and receive appropriate vendor training.

◇ 3.4 Coal mining

This interview was with the training manager at the largest vendor of mining equipment (Joy Manufacturing), a person who was also on the board of the Mining Industry Skills Association. He was thus able to offer both a vendor perspective as well as an industry perspective.

The core position of the vendor is that they are not an RTO, nor are they an employer of the mining workforce. Their priority is selling their equipment. Thus they cannot take responsibility for prior knowledge among the workforce, nor can they provide theoretical or background knowledge which should be

part of formal trades training.

Their approach to training is to write their courses specifically for their equipment, and then to map them onto the competencies which are part of the accredited training system. This covers five key areas:

1. plan and prepare;
2. operate;
3. mechanical;
4. electrical;
5. control systems.

Each specific part of these is then mapped onto the competency. Issues arise because of trying to apply operational competencies to tradespeople. The Joy position is that tradespeople need to know operations in order to then fix equipment, but the competencies were only ever written for the operator level. In order to teach trades level workers, trainers need to have Mechanical or Electrical competency qualifications. While an RTO might have such trainers, this is not the case for a mining equipment supplier like Joy.

Joy also has no role in issuing certificates of attainment, but this mapping process means that employers can follow through on the training if they wish to. In practice, mines don't understand competencies. They want the vendors to take this responsibility,

but vendors (like Joy) are focussed on their core business of selling equipment, not providing training to the workforce as a kind of defacto RTO.

The driver for change in the industry is not technology, but safety. If an accident occurs, then inspectors ask for documentation and for training records. This can help prioritise training in the workplace.

The only area which has seen technological change has been the electrical, with PLCs and micro-processor based systems replacing wiring. This can be a problem for electricians who don't have sufficient theoretical background. But Joy does not see this as their responsibility. They do not have the time to deal with this kind of problem.

Other parts of Joy's global operations have gone down a more generic training path, with training centres established in South Africa and now underway in China. But in Australia, it has not been feasible to set up such centres. Distances (to Queensland, or even the Hunter Valley) are too great and resources are limited. While the Joy trainers have diplomas (and all instructors have at least Certificate IV qualifications) they are not trade teachers.

◇ 3.5 Information and Communications Technology

The fieldwork for this industry involved a number of industry sectors, and included interviews with TAFE trainers and a major vendor of network equipment (Cisco). The sectors included: information technology, web technology, E-Commerce, telecommunications and networks, and printing and graphics. They are discussed in this one section because many of the themes overlap and because the comparisons and the

contrasts which they provide are quite insightful.

Not surprisingly, the rate of technological change is rapid in ICT. 'Constant change' is the best description for this industry. This raises important issues for the relationship between established RTOs, such as the TAFE system, and large vendors which dominate industry sectors (like Microsoft or Cisco).

Over time there has been a merger between industry certification and vendor training in some areas, such that vendor certificates have become essentially the industry standard, whether or not they are part of the formal AQF competencies. There has also been a certain level of institutional integration between the formal training system and vendor training, with Cisco Network Academies being an example of this. More details on these issues will be provided below.

There are some sectors of IT, such as graphic design, web technology and computer programming where the absence of dominant players and dominant technologies has resulted in generic skills remaining solidly within the framework of the accredited training system and only a minor role played by vendor trainers. TAFE has remained strong in these areas because it delivers these kinds of generic skills well. With the web, for example, there is no dominant vendor and the industry standards are not well established. At the same time, the technology has also evolved to make it easier for people to use the web. The web development industry is also characterised by large numbers of self-taught professionals. The absence of dominant players, and the fluidity of its development, has meant that the web remains an under-developed area for major vendor training.

When it comes to TAFE courses, students learn industry standard software—such as some of the Adobe products—within their mainstream courses, over a longer period of training and as part of broader design skills. Outside of TAFE, the same software can

be learnt from private providers in short high-fee courses, and these are more likely to attract professionals whose employers will often meet the cost.

Where dominant players are strongly linked to vendor training is in the areas of desktop computing and networks. Microsoft dominates the former through the Windows operating system and through Microsoft Office. Microsoft also remains the strongest player in corporate networking (though Linux-based systems essentially run the internet). From a hardware perspective Cisco dominates networking.

While TAFE provides comprehensive desktop and network training, the vendors are also prominent, such that a parallel system exists. For example, the Microsoft Office User Specialist (MOUS) certification has found its way into TAFE courses, while continuing to be the major commercial offering by many private providers. Similarly, Microsoft Certified Systems Engineer (MSCE) courses have become an industry standard, particularly at the corporate level. In both cases, the spread of vendor certified courses like these has helped Microsoft consolidate its market dominance. The mode of delivery of these kinds of courses can leave much to be desired. Some students do only simulated training, with no ‘hands on’ component. This can leave them out on a limb when they go into the workplace. As a result, Microsoft certification can face credibility problems in some quarters.¹

In the case of institutional integration, Microsoft has forged links with the TAFE system through its ‘Academic Provider’ system, which makes its software highly accessible to staff and students. In the

¹ A survey conducted by market researcher Impact Communications among Microsoft developers in 2005 found considerable dissatisfaction with vendor training, in terms of both cost and usefulness. The article which reported these findings quoted one IT manager expressing support for TAFE over vendor training: ‘We encourage staff, especially those without a diploma or a degree, to go to TAFE ... a semester course, in the long run, is more beneficial than an expensive, one-day course ...’ (Crawford and Binge-mann, 2005).

case of Cisco, the links are even stronger and operate at the institutional level through its Network Academies (more on this below).

In telecommunications and networking, vendor training remains essential because employers specify vendor standards. As a result students require vendor certification, something which TAFE cannot provide but which TAFE accommodates by mapping such certificates to existing TAFE courses. Such mapping accounts for about 20 per cent of the TAFE offering. The reason for this situation is that technology changes so rapidly that only the vendors can really keep up with it:

Because the technology is changing so fast, to rely on TAFE or teachers to keep coming up with new resources every couple of years would be ludicrous.

◇ _____

Turning now to the printing and graphics sector, another notable trend is evident. As with the coal mining example discussed earlier, vendors of printing equipment have refrained from becoming major training providers. Their focus has remained on the sale of their products, with on-site support and training during installation aimed at protecting their reputations and preventing future service calls. Consequently, there is no certification attached to this level of training, and employees rely on prospective future employers using the same equipment if they are to achieve transferability of their skills.

One major vendor—Heidelberg—did offer training as an RTO for several years but eventually left the field because the auditing and assessment requirements became too onerous for a company whose main priority was

selling equipment.

As a consequence there is considerable skills development occurring within the graphics industry which remains outside the formal accredited training system. While many of these skills can be mapped to AQF competencies, their recognition relies on RPL processes within the TAFE system. The IBSA website highlights, for example, the extent to which this vendor mapping is feasible.² However, the linkages between vendor training and accreditation remain ad hoc rather than systematic:

There are a lot of people with fantastic skills sets, but unfortunately they're not being recognised readily . . . You've got your vendor targeted areas over here and you've got your national training system with competencies here. And it's a matter of somebody saying, "We recognise this out of this company's training program as part of this national unit . . ."

From the perspective of TAFE trainers, this situation is far from ideal and has major implications for equity in the training system:

One thing I like about training packages is . . . they're the best equity documents that's ever been produced in the history of Australia. It's giving people an opportunity to get on the treadmill of training that they've never had an opportunity to get on.

Our industry has around about 48 per cent of the participants in the printing industry don't have any post-school qualifications. It's sad, it's so sad. It's been sort of a protected area where the only ones who got in were tradespeople . . .

² See http://www.ibsa.org.au/content/printing/tpicp05_overview.html for example.

This 48 per cent never had a step to get on the treadmill. Training packages will let you do that, because you can recognise three units of competencies from Xerox, four from Canon. Next thing you know, they've got this little cluster and you say, "Hey, that fits against a Certificate II. I can give you a Certificate II." And all of a sudden they're on the ladder. They're great equity documents. But we're not capitalising on it.



The role of Cisco in terms of vendor training is particularly interesting and departs from many of the trends outlined above. Like the printing equipment vendors, and the mining machinery vendors, Cisco is largely involved with the hardware side of the industry (through its routers). However unlike them, it has not been wary of moving into training activities, but has actually embraced them. Of all the vendors discussed in this section, Cisco has the strongest institutional links with the formal training system through its Network Academies. At any one time during the December to February period, Cisco has as many as 11,500 students across Australia taking its courses.

Cisco also has a strong commitment to industry-level skills, and at increasing the supply of skilled professionals in the industry. In some respects this parallels the Microsoft position, in which market dominance and industry-level skills tend to coalesce. That is, from a commercial point of view it makes sense to provide industry-level training because this consolidates the market domination of the vendors products in that industry.

However, there is also a large component of the Cisco endeavour which does not appear to be commercially driven. Cisco has well

developed 'corporate social responsibility' goals and strong linkages with schools, TAFEs, NGOs and other community-based organisations. The Network Academies, a global program which runs in 160 countries, is the embodiment of this approach. It origins lay with Cisco becoming involved in the US with community colleges who had their equipment installed but did not know how to use it. The program has 220 academies in Australia, spanning schools, TAFEs, universities and community colleges. Even Oasis, the homeless youth project, has a Network Academy.

Apart from its philanthropic aspects, the Academy program clearly meets the goals of increasing the supply of trained workers in the IT industry and helping Cisco consolidate its position of market dominance in network routers. At the same time, Cisco also operates a more commercially focussed training program, called Cisco Learning Partners. These resemble the hot-house private provider training courses mentioned above. They usually attract IT professionals, are often paid for by employers, and consist of short intensive courses with minimal hands-on experience. By contrast, the Network Academy program is closer to a traditional TAFE program, with entry-level access for non-specialists, longer duration of training and much more hands-on learning.

Cisco ensures these two strands of vendor training are kept separate. The Network Academy program is essentially cost-recovery only while the Learning Partners is fully commercial. While the Network Academies are allowed to deliver fee for service courses, Cisco ensures that they don't compete with Learning Partners by specifying that these courses are delivered over a longer period of time.

The Cisco approach to training is quite innovative, being based on tiered training ('train the trainers') and on

curriculum development. The regional Academies focus on training instructors (as well as students) while local Academies focus on teaching students. As the pool of instructors increases, so the reach of the program is extended. At the same time, the pressure to develop up-to-date curriculum within the formal accredited system—the bugbear of the whole ICT industry—is resolved by Cisco taking responsibility for curriculum development. Thus the main advantage for TAFEs or schools to become Network Academies (apart from purchasing subsidised hardware) is access to this curriculum. While there have been problems in the past with the curriculum and the industry certification getting out of alignment, Cisco believes that in recent years this issue has been largely resolved.

As far as certification goes, the Cisco example illustrates a number of issues. On the one hand, a vendor certification like CCNA (Cisco Certified Network Associate) is not only the industry standard, but is also an international benchmark. This makes it easy for students to move through jobs in a global labour market. While the training takes place with Cisco hardware—and in this sense runs counter to the competencies emphasis on familiarity with all hardware—the inter-operability of networking technology makes this less of an issue than might be the case

in other industries.

Cisco vendor certification remains separate from formal accreditation. Often students will focus on their University, TAFE or school assessment, even when undertaking Cisco courses in the Network Academies which are part of those institutions. Only after completion of their formal accreditation might these students sit for the vendor certification. Cisco facilitates this by offering discount vouchers to its Academy students to sit these certification exams.

In the past, some of the Cisco courses have been generic IT courses, with training offered in areas like Unix and Java programming. However, these tend to be legacy courses which are being phased out. In this respect, despite the considerable resources allocated to curriculum development, Cisco has not moved to become a training organisation per se. Its corporate strategy remains targeted on its core technology—networking—while also maintaining a broader commitment to the IT industry. Its Networking Academy program supports this approach. It thus appears that Cisco is able to consolidate its position of industry dominance, support industry growth (through increasing the supply of qualified professionals) and meet its ‘corporate social responsibility’ goals within the one overall strategy.

◇ 4

Employers' use of vendor training

This chapter presents the results from analysing the NCVET unit record files for two employer surveys. The data is available at both the national level and the NSW state level. Unfortunately, the sample size for vendor training in NSW is quite small, and this limits the extent to which the state level data can be further disaggregated. Nevertheless, some useful insights at the state level are available in this chapter. More importantly, this chapter shows that the NSW profile does not differ greatly from the national profile, and therefore the insights available at the national level are also likely to apply within NSW.

What are the broad patterns in vendor training at the national level? How do

they vary by industry and how are they changing? In this section I answer these questions by examining two NCVET employer surveys conducted in 2005 and 2007. These were both called the *Survey of Employer Use and Views of the VET System (SEUV)*, and were large-scale national surveys which produced data which was representative of all employers who had at least one employee. The NCVET provided both national datasets and NSW datasets for this report, though in the case of the latter, industry identifiers were not provided (for reasons of confidentiality). Consequently, in this section of the report I present an industry profile, but in the next section which deals with NSW there are no industry breakdowns.

◇ 4.1 Overview

In the area of unaccredited training, vendor training was the second most common type of training utilised by employers in 2005. As Table 4.1 shows, about 23 per cent of employers indicated that vendor training was their main training provider. This constituted about 50,000 employers. This figure was behind that of private providers (35 per

cent), but ahead of industry associations (at 18 per cent). By 2007 these rankings were still the same, but the proportion of employers using private providers had grown to 42 per cent and the proportion using vendor training had declined to 15 per cent. Numerically, this represented a drop in numbers to about 30,000 employers.

Table 4.1: Main training providers for unaccredited training, Australia 2005 and 2007

	Main training provider							Total	N
	Vendor	Educ inst	Private	Govt dept	Prof assoc	Ind assoc	Other		
Counts									
2005	52,410	13,280	80,058	13,375	16,396	42,108	12,187	229,813	1,461
2007	31,741	7,148	86,147	17,343	18,219	28,573	16,944	206,116	1,377
Percentages									
2005	22.8	5.8	34.8	5.8	7.1	18.3	5.3	100.0	1,461
2007	15.4	3.5	41.8	8.4	8.8	13.9	8.2	100.0	1,377

Notes: Data weighted.

Source: SEUV 2005 and 2007.

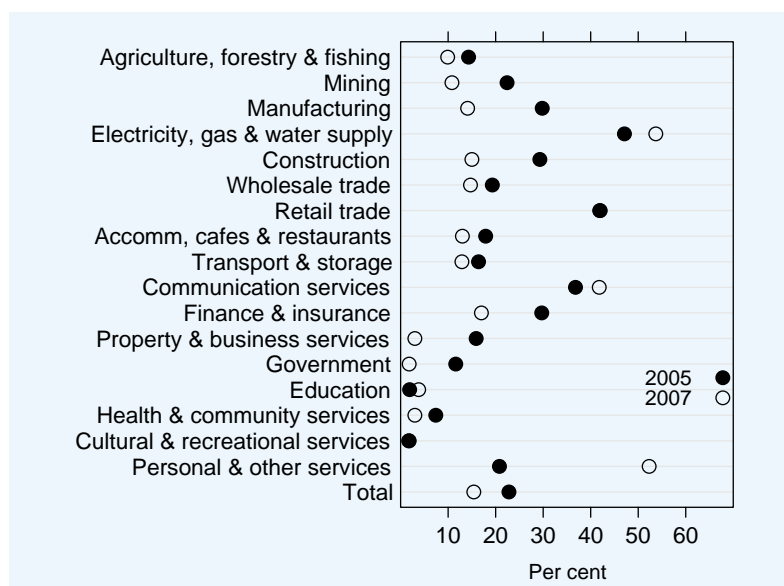
Population: All employers whose employees undertook unaccredited training in the past 12 months.

◆ 4.2 Industry profile

Several industries stood out in their use of vendor training (see Figure 4.1). In electricity, gas and water supply some 47 per cent of employers used vendor training in 2005, making it the dominant

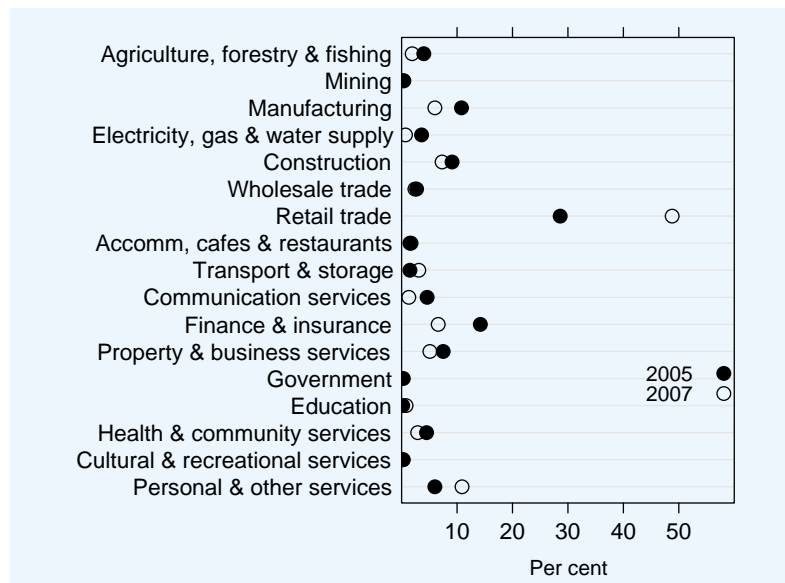
form of unaccredited training. Similarly, in retail trade and in communication services vendor training was the dominant form, with figures of 42 per cent and 37 per cent respectively.

Figure 4.1: Share of vendor training within industries, Australia 2005 and 2007



Source: SEUV 2005 and 2007. See Tables A.2 and A.4

Figure 4.2: Industry breakdown of vendor training, Australia 2005 and 2007



Source: SEUV 2005 and 2007. See Tables A.1 and A.3

While manufacturing (30 per cent), construction (29 per cent) and finance and insurance (30 per cent) all had significant proportions of employers making use of vendor training, the dominant provider was found elsewhere (namely, private providers). It is important to keep in mind that vendors sometimes provide their training through private providers, so these figures probably underestimate the importance of vendor training from a learning content point of view.

By 2007 part of this pattern was still the same, while other changes were noticeable. In retail trade, electricity, gas and water supply and communications the importance of vendor training had not diminished and the proportions of employers making use of this form of training was roughly the same as in 2005. However, in manufacturing and in

finance and insurance the figures in 2007 were about half of what they had been in 2005. On the other hand, in personal and other services vendor training had become much more important: growing from 21 per cent in 2005 to 52 per cent in 2007.

Within the category of vendor training, retail trade was the most important industry in 2005 (see Figure 4.2). Nearly 30 per cent of all employers for whom vendor training was the main training provider were located in the retail sector. The next most important industries were finance and insurance (14 per cent) and manufacturing (11 per cent). By 2007 retail trade was even more dominant, accounting for 49 per cent of all employers using vendor training. Finance and insurance had dropped to 7 per cent and manufacturing had declined to 6 per cent.

◆ 4.3 Occupational background

Which categories of employees have access to vendor training? As Table A.5 shows, in 2005 two occupational groups

were dominant: technicians and tradespersons and clerical and administrative workers. The former

constituted 28 per cent of all employer responses, and the latter made up 22 per cent. (These percentages are for employer responses, not employees, because multiple responses were permitted in the survey.) When compared with the overall occupational pattern, the importance of technicians and tradespersons within vendor training stood out.

By 2007 this occupational profile had

changed and technicians and tradespersons were no longer prominent. Nor were clerical and administrative workers exceptional. Indeed, vendor training was spread across most occupational groups in proportions which matched the overall total. The most notable change, however, was the increased importance of vendor training among the lower skilled occupations.

◆ 4.4 Employer motivation

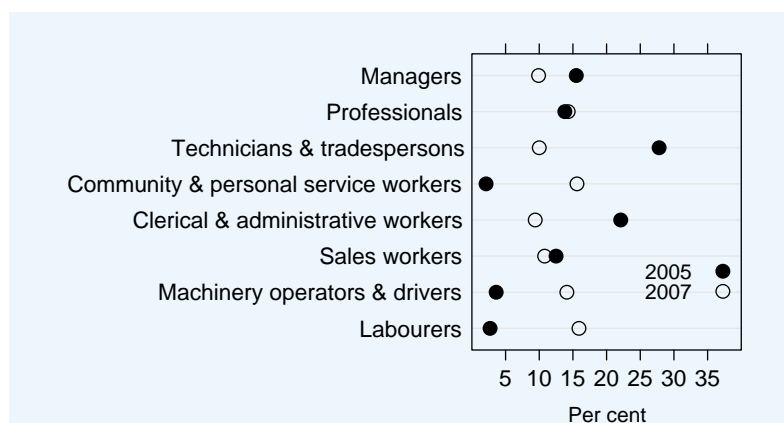
The SEUV asked employers for their reasons for undertaking unaccredited training and also their reasons for choosing the main training provider for that unaccredited training. These questions allowed for multiple responses, which means that the percentages reported in this section relate to employer responses, not to employees as such. Tables A.6 and A.7 in the Appendix provide details of these findings and a summary of the results is shown below in Figure 4.4.

There was no clear pattern in the employer choice of unaccredited training. Those who chose vendor training, compared with other types of training provision, had a broad range of reasons ranging from award or EBA

requirements through to cost effectiveness, but none stood out as dominant. This pattern was largely the same in both 2005 and 2007.

When it came to choice of training provider, patterns among employer responses were much stronger. In 2005 three reasons dominated employer decision-making: the vendor training provider was the only suitable provider for 30 per cent of employer responses; the expertise was not available elsewhere for another 26 per cent of responses; and 22 per cent of responses suggested that vendor trainers provided specialist knowledge or knowledge which was highly relevant to their industry. This pattern was similar for employers using other training

Figure 4.3: Occupational background of those receiving vendor training, 2005 and 2007



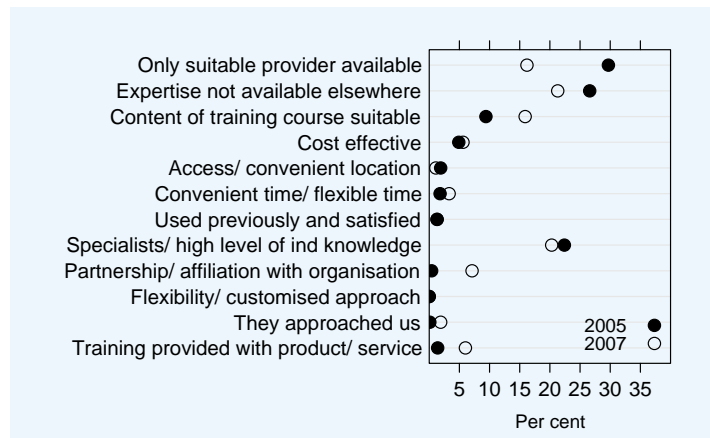
Source: SEUV 2005 and 2007. See Table A.5

providers, but a few differences were evident. While the emphasis on specialist knowledge was important to employers using professional or industry associations, it was absent for employers using educational institutions and less important for employers using private providers. On the other hand, these kinds of employers gave greater emphasis to the content of the training courses, while this was much less important to the employers who used vendor training.

By 2007 this picture had changed

(Figure 4.4). The content of training courses had become slightly more important among employers who used vendor training and the sole provider aspect to this training was much less important. Whereas in 2005 some 30 per cent of employer responses were 'Only suitable provider available' for why they used their vendor training provider, by 2007 this proportion had dropped to 16 per cent. The specialised knowledge and expertise available from vendor trainers were still important reasons for employers.

Figure 4.4: Reasons for choosing vendor training provider, Australia 2005 and 2007



Source: SEUV 2005 and 2007. See Table A.7

◇ 4.5 Alternatives to unaccredited training

The SEUV also asked employers if they had an alternative to unaccredited training in the form of comparable nationally recognised training. The vast majority (61 per cent) indicated that they didn't and another 25 per cent admitted that they had not explored this avenue. An even larger proportion of employers, for whom vendor training was the main provider, fell into this category (71 per cent). There was little difference between 2005 and 2007 (see Table A.9).

The industry breakdown for this item is interesting and is shown in Table A.9. While it is not possible to further disaggregate into the main training provider categories, those industries which were earlier identified as

important within vendor training can be pinpointed within these data. For example, in retail trade the proportion of employers who replied in the negative to the availability of nationally recognised training was 61 per cent in 2005, a figure commensurate with the all-industry average. This figure had not changed by 2007. On the other hand, in another of the important industries for vendor training—electricity, gas and water supply—more than 90 per cent of employers had no access to comparable nationally recognised training as an alternative to unaccredited training in 2005. By 2007 this figure had dropped to 70 per cent, but this proportion was still well above the all-industry average.

◇ 4.6 The NSW picture

The SEUV data provide only a limited picture of the situation of vendor training in NSW. The main restriction is due to the small sample size for the state and the confidentiality requirements which prevent the use of industry information. Nevertheless, the NSW data is useful because it allows us to examine whether

the overall patterns of unaccredited training in NSW depart from the national picture. In so far as the NSW profile is consistent with the national profile, then it is a reasonable assumption that the patterns in vendor training noted earlier also prevail in NSW.

Table 4.2: Main training providers for unaccredited training, NSW 2005 and 2007

	Main training provider							Total	N
	Vendor	Educ inst	Private	Govt dept	Prof assoc	Ind assoc	Other		
Counts									
2005	19,568	4,772	26,511	4,082	4,743	16,486	7,146	83,308	216
2007	13,087	3,361	24,906	5,958	7,127	6,281	5,559	66,279	256
Percentages									
2005	23.5	5.7	31.8	4.9	5.7	19.8	8.6	100.0	216
2007	19.7	5.1	37.6	9.0	10.8	9.5	8.4	100.0	256

Notes: Data weighted.

Source: SEUV 2005 and 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Consistent with the national picture, vendor training was the second most common type of unaccredited training utilised by employers in NSW. Details are provided in Table 4.2 and the pattern is shown in Figure 4.5. In 2005 about 23 per cent of employers—or some 20,000 employers—used this as their main training provider. As with the national data, most employers in NSW used private providers. There was little change in the overall situation between 2005 and 2007, though the number of employers who used industry associations as their main training provider halved during this period. Comparisons of these figures with the national data are also shown in the Appendix (see Table A.10).

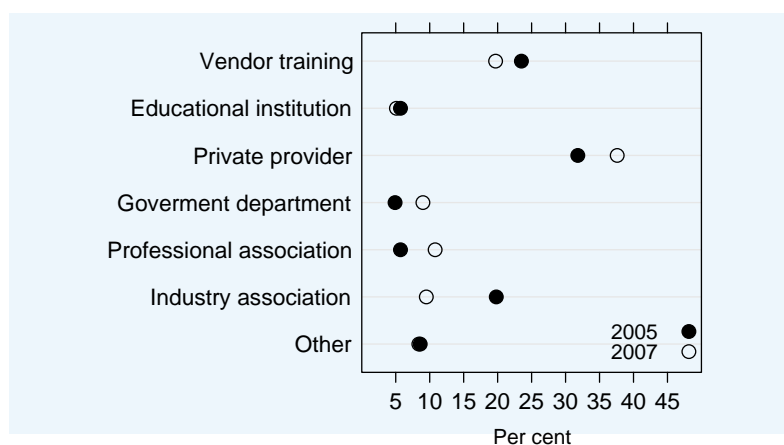
Within vendor training, NSW employers made up about 40 per cent of those utilising such training (37 per cent in 2005 and 41 per cent in 2007). While these figures remained stable between 2005 and 2007, in a number of other areas of unaccredited training there were some notable changes. As Table A.11 shows the NSW share of employers using educational institutions

for unaccredited training rose from 36 per cent to 47 per cent; and the NSW share of those using professional associations also grew (from 29 per cent to 39 per cent). On the other hand, the NSW share of those using industry associations dropped from 39 per cent to 22 per cent.

The occupational background of those receiving unaccredited training in NSW differed little from the national picture (see Table A.12). The same changes noted earlier—an increase in training among the lower skilled occupations—was also evident in NSW between 2005 and 2007 (see Figure 4.6).

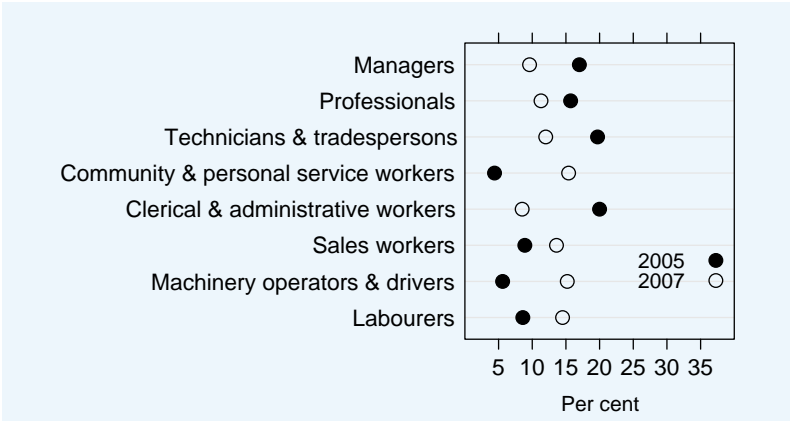
Finally, the reasons given by employers for choosing their unaccredited training provider showed little change in NSW between 2005 and 2007. As Figure 4.7 shows, there were small drops in the importance of specialist knowledge and unique expertise, but these still remained—along with course content and sole provider status—the most important reasons for why employers chose their particular providers.

Figure 4.5: Main training provider for unaccredited training, NSW 2005 and 2007



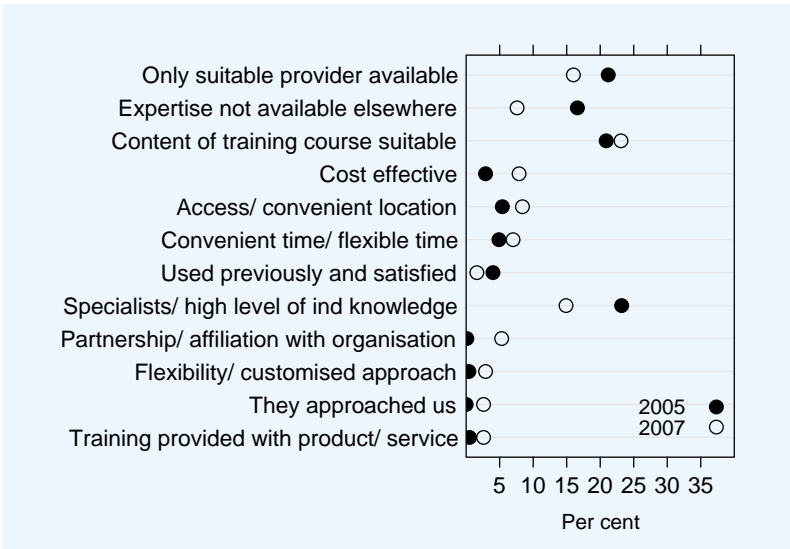
Source: SEUV 2005 and 2007. See Table 4.2

Figure 4.6: Occupational background of those receiving unaccredited training, NSW 2005 and 2007



Source: SEUV 2005 and 2007. See Table A.12

Figure 4.7: Reasons for choosing unaccredited training provider, NSW 2005 and 2007



Source: SEUV 2005 and 2007. See Table A.14

◇ 5

Employees and vendor training

This chapter presents the results from the ABS training and education unit record files for the period 1989 to 2005. Except for 1989, the data are available at both the national level and the NSW state level. This time series is quite unique because the core data item—the provision of external training by an equipment supplier—was asked in every survey.¹ We have, moreover, comparable background data items for training participants which also cover this long time period.²

The main methodological concern with this data were some changes initiated in 2005, where the ABS dropped its internal/external training distinction and increased the age range for respondents such that more older employees were included (ABS, 6278.0, pp. 2, 64). While a data item was included with the unit record files to maintain comparability for the internal/external distinction, some of the 2005 results presented below appear to depart from the pattern in the preceding years. In particular, the amount of vendor training appeared to grow very strongly between 2001 and 2005.

There are several possible explanations

for this. On the one hand, there is the likely impact of changes in survey methodology. On the other hand, skills and labour shortages which began growing in the labour market from around 2005 may have induced employers to increase their training effort. In addition, if the 2001 figures were depressed by the slowdown in economic activity during that period, then the change between 2001 and 2005 would seem even more dramatic. Of course, both labour force changes and changes in survey methodology may together account for some of the '2005 effect'. Whatever the case, it is worth viewing some of the findings for 2005 with caution, when considered as part of a time series.

Finally, in the case of the vendor training figures, it needs to be kept in mind that the sample size for this sub-group is quite small (in the low hundreds) so the standard errors for some of these estimates may be quite large. Despite these various caveats, the ABS training and education surveys provide the best insights into what has been happening with vendor training during the last two decades and are extremely useful for this reason alone.

¹ It was, however, worded differently in the latter years. In 1989 and 1993 the question referred to 'main external training course' and in 1997 and 2001 the reference was to 'most recent external training course'.

² Occupational coding schemes changed midway through this period, so for this item the results for two separate sub-periods are presented.

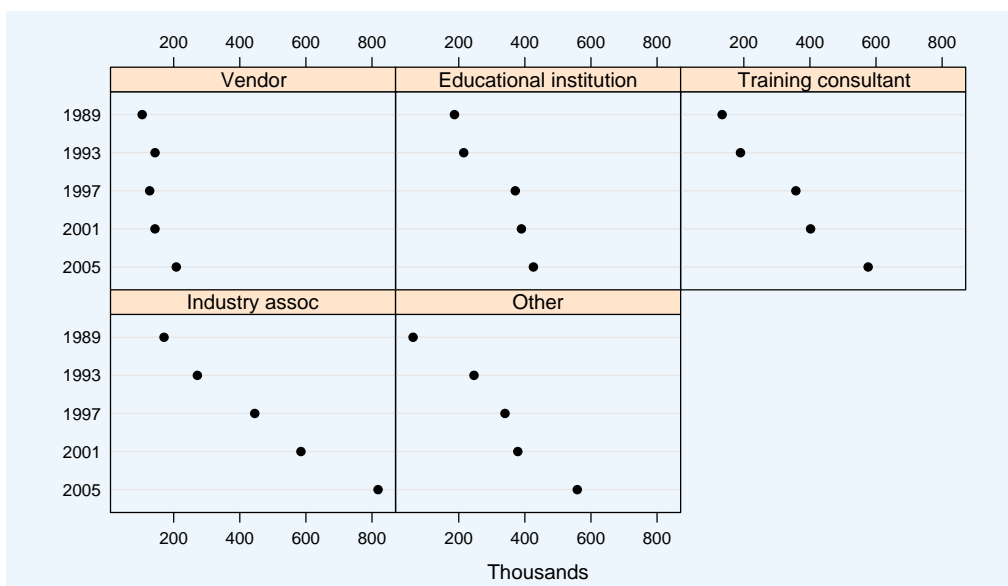
◇ 5.1 Overview

The ABS data are particularly useful for gaining head counts of just how many employees are involved in receiving vendor training as part of an external training course. An overview of these data are shown in Table 5.1 and illustrated in Figure 5.1. These figures suggest that external training grew strongly in the early 1990s but slowed towards the end of that decade. In the case of vendor training, its numbers have stagnated since 1993, whereas the numbers for most other training providers, particularly professional and industry associations, have grown steadily. If we take into account the growth in the employee workforce over this period—from about 6.1 million in 1989 to 8.6 million in 2005—this stagnation in the numbers undertaking vendor training is quite dramatic. The share of external training providers held by vendor trainers basically halved in the

period 1989 to 2005, dropping from 15.9 per cent to 8 per cent.

The bottom panel of Table 5.1 is useful for assessing the overall training contribution made by external training. It shows the employee workforce for the period 1989 to 2005 and the proportion of these employees who undertook an external training course, and the proportion who undertook vendor training. In the case of the former, there was a steady increase in employee participation in external training right through the period, rising from just 10.8 per cent in 1989 to 30.1 per cent by 2005. The stagnation in vendor training, alluded to above, is evident in the final row. It increased from just 1.7 per cent in 1989 to 2.4 per cent in 2005, a mere 40 per cent increase compared with the near three-fold increase in external training as a whole.

Figure 5.1: Participation in external training, 1989 to 2005



Source: ABS training and education surveys, 1989 to 2005. See Table 5.1

Table 5.1: Numbers of employees participating in external training courses, Australia 1989 to 2005

Training provider	1989	1993	1997	2001	2005
Counts					
Equipment supplier or manufacturer	104,611	143,557	127,249	143,358	207,816
Educational institution	186,998	215,008	370,984	389,592	425,884
Training consultant	134,333	189,782	357,484	401,995	576,082
Professional or industrial association	170,699	271,594	445,234	584,970	818,307
Other	61,720	246,082	339,823	378,632	558,556
Total	658,361	1,066,022	1,640,774	1,898,546	2,586,645
Percentages					
Equipment supplier or manufacturer	15.9	13.5	7.8	7.6	8.0
Educational institution	28.4	20.2	22.6	20.5	16.5
Training consultant	20.4	17.8	21.8	21.2	22.3
Professional or industrial association	25.9	25.5	27.1	30.8	31.6
Other	9.4	23.1	20.7	19.9	21.6
Total	100.0	100.0	100.0	100.0	100.0
N	1,640	2,406	3,652	3,689	4,568
Employee workforce	6,068,731	6,060,610	6,681,315	7,245,194	8,605,484
All Training as proportion	10.8	17.6	24.6	26.2	30.1
Vendor training as proportion	1.7	2.4	1.9	2.0	2.4

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended external training courses in the past 12 months.

◇ 5.2 Industry profile

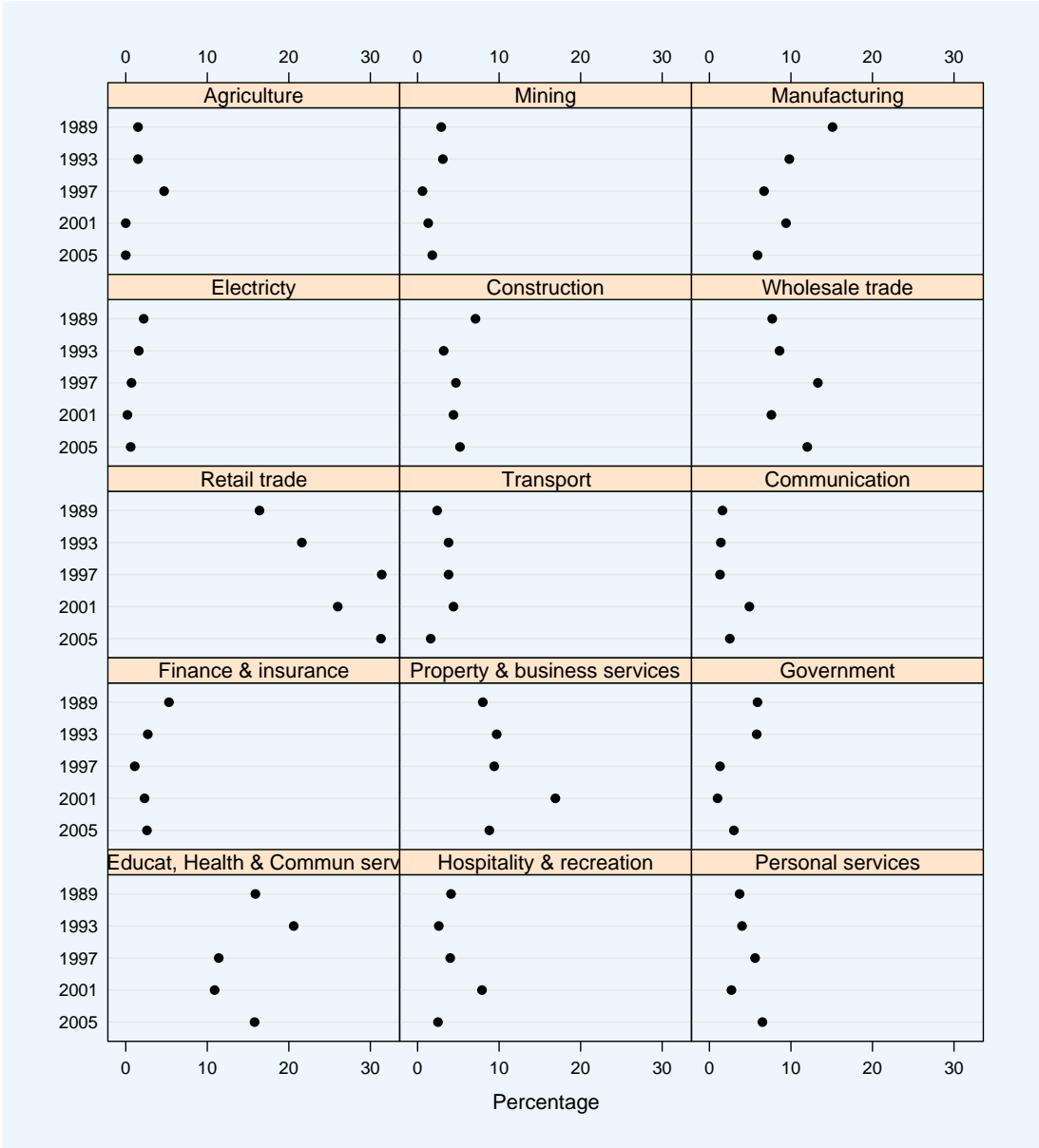
From an industry point of view, the most dramatic changes have been the drop in participation by manufacturing employees. As Table 5.2 shows, in 1989 some 16,000 took part in vendor training. By 2005 this figure had nearly halved. While the numbers fluctuate considerably, it is clear that vendor training has remained strong in retail trade and in education, health and community services.³ One of the largest increases—though from a small base—has been in communications, where the numbers attending courses jumped from under 2,000 during the 1990s to over 4,000 by 2001 before settling back to just under 3,500 in 2005.

The industry picture is also presented graphically in Figure 5.2. This shows the industry share of vendor training over

this time period and highlights the drop in the manufacturing share of vendor training from 15 per cent to 6 per cent between 1989 and 2005. At the same time, the share held by retail trade nearly doubled from 16 per cent to 31 per cent. It is important to keep in mind that these changes partly reflect compositional change in the labour force over this period. For example, manufacturing and retail trade basically swapped places between 1989 and 2001: in 1989 the former had 1.3 million employees (19 per cent of the total) and retail trade had less than 900 thousand (13 per cent). By 2001, manufacturing had dropped to just over 1 million employees (13 per cent) while retail trade had expanded enormously to 1.4 million employees (17 per cent).

³ Indeed the growth in vendor training has been quite phenomenal: from under 18,000 in 1989 to 44,000 in 2005. However, because the 2005 figure departs considerably from that in 2001, it is worth treating it with some caution.

Figure 5.2: Industry breakdown of participation in vendor training, 1989 to 2005



Source: ABS training and education surveys, 1989 to 2005. See Table 5.2

Table 5.2: Numbers of employees participating in vendor training by industry, Australia 1989 to 2005

	1989	1993	1997	2001	2005
Counts					
Agriculture	1,605	1,700	4,309		
Mining	3,042	3,503	529	1,230	2,522
Manufacturing	15,749	11,153	6,077	8,936	8,237
Electricity	2,259	1,812	621	194	808
Construction	7,472	3,630	4,275	4,237	7,279
Wholesale trade	8,073	9,801	12,152	7,256	16,879
Retail trade	17,151	24,579	28,624	24,799	43,966
Transport	2,561	4,354	3,473	4,237	2,230
Communication	1,712	1,629	1,202	4,712	3,489
Finance & insurance	5,554	3,102	1,027	2,165	3,603
Property & business services	8,336	11,103	8,526	16,158	12,395
Government	6,211	6,575	1,194	920	4,192
Educat, Health & Commun serv	16,684	23,469	10,381	10,394	22,136
Hospitality & recreation	4,294	2,967	3,680	7,548	3,544
Personal services	3,908	4,522	5,070	2,614	9,071
Total	104,611	113,899	91,141	95,401	140,353
Percentages					
Agriculture	1.5	1.5	4.7		
Mining	2.9	3.1	0.6	1.3	1.8
Manufacturing	15.1	9.8	6.7	9.4	5.9
Electricity	2.2	1.6	0.7	0.2	0.6
Construction	7.1	3.2	4.7	4.4	5.2
Wholesale trade	7.7	8.6	13.3	7.6	12.0
Retail trade	16.4	21.6	31.4	26.0	31.3
Transport	2.4	3.8	3.8	4.4	1.6
Communication	1.6	1.4	1.3	4.9	2.5
Finance & insurance	5.3	2.7	1.1	2.3	2.6
Property & business services	8.0	9.7	9.4	16.9	8.8
Government	5.9	5.8	1.3	1.0	3.0
Educat, Health & Commun serv	15.9	20.6	11.4	10.9	15.8
Hospitality & recreation	4.1	2.6	4.0	7.9	2.5
Personal services	3.7	4.0	5.6	2.7	6.5
Total	100.0	100.0	100.0	100.0	100.0
N	263	250	194	182	244

Notes: Data weighted. Note that totals do not match those in Table 5.1 because of missing observations (where industry was not coded).

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended vendor training courses in the past 12 months.

◇ 5.3 Occupational profile

Assessing occupational change over time is complicated by changes in the ABS occupational coding system during the period under review (a change from ASCO First Edition to ASCO Second Edition). It is possible to compare occupational outcomes for the period

1989 to 1997 and for the period 1997 to 2005, but not across the whole period. Not only do 'new' categories occur, but some 'continuing' categories (such as professionals) no longer exactly match the older categories. Despite these difficulties it is worth comparing the

occupational profile of those undertaking vendor training during this period. The dual-coding of occupation to both editions of ASCO in 1997 makes it possible to use this year as a 'seam' in the period and helps us to decide which changes reflect changes in coding and which reflect actual changes in the labour force.

As Table 5.3 shows, there appears to have been a gradual decline in the share of vendor training undertaken by managers and an increase in the share held by salesworkers. Because of the mixed categories in the second period, it

is difficult to put a figure on this increase, but it is likely to be consistent with the first period 1997 figures (of about 25 per cent). It is interesting to note that the share held by tradespersons dropped considerably in 1993—probably because of the 1991 recession—but recovered to its longer term trend by 2001. In 2005, however, it had begun to drop again, this time with no downturn in the economy to explain the fall. Nevertheless, along with the sales workforce, tradespeople remain the major group undertaking vendor training, a finding that is largely consistent with the fieldwork and the literature.

Table 5.3: Employees participating in vendor training by occupation, Australia 1989 to 2005 (%)

ASCO First Edition	1989	1993	1997	ASCO Second Edition	1997	2001	2005
Managers	9.2	11.9	8.7	Managers	6.0	7.5	3.3
Professionals	21.7	25.8	17.9	Professionals	21.4	18.9	21.5
Para-professionals	9.2	7.8	7.1	Associate profs	8.6	11.0	12.2
Tradespersons	23.4	15.7	25.0	Tradespersons	25.1	27.1	19.0
Clerks	17.0	8.2	5.6	Adv cleric, service	1.9	2.4	4.4
Salespersons	13.7	22.3	25.6	Inter cler, sales, serv	10.7	17.0	18.1
Machine, plant ops	3.7	5.2	3.4	Inter prodn, transport	4.1	1.2	2.0
Labourers	2.1	3.3	6.6	Elem cler, sales, serv	18.1	13.1	16.1
				Labourers	4.2	1.7	3.4
Total	100.0	100.0	100.0	Total	100.0	100.0	100.0
N	263	250	194		194	182	244

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended vendor training courses in the past 12 months.

◇ 5.4 Workforce profile

Are there any patterns in the job tenure of those employees undertaking vendor training? Table 5.4 suggests that there were some changes in the mid-1990s, but that the long term trend is largely one of stability. In the mid-1990s recent workplace recruits saw their share of vendor training fall but this had recovered by 2001. Their share began to drop again in 2005 but whether this reflects a trend or not is difficult to say.

When it comes to employment status, there are some interesting changes over time (Table 5.5). On the one hand, until 2005 there appears to be considerable stability in the hours dimension. Apart from 1993—when a large drop coincided with the recession—the share held by part-timers has hovered around 20 per cent for most of the period. In 2005 it jumped to nearly 28 per cent, but caution is warranted in assessing this change.

Table 5.4: Job tenure of those employees undertaking vendor training, Australia 1989 to 2005

	1989	1993	1997	2001	2005
Under 1 yr	21.1	13.8	13.6	20.1	16.0
1 to under 3 yrs	30.0	18.5	27.7	27.1	28.8
3 to under 5 yrs	16.3	19.6	16.9	10.9	13.8
5 to under 10 yrs	15.6	21.3	23.7	24.0	21.7
10 yrs or more	17.0	26.8	18.1	17.9	19.7
Total	100.0	100.0	100.0	100.0	100.0
N	263	250	194	182	263

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended vendor training courses in the past 12 months.

Table 5.5: Employment status of those employees undertaking vendor training, Australia 1989 to 2005

	1989	1993	1997	2001	2005
Hours					
Full-time	80.2	87.7	76.9	79.0	72.5
Part-time	19.8	12.3	23.1	21.0	27.5
Total	100.0	100.0	100.0	100.0	100.0
N	255	250	194	182	263
Permanency					
Permanent	93.3	88.3	80.6	77.9	78.0
Casual	6.7	11.7	19.4	22.1	22.0
Total	100.0	100.0	100.0	100.0	100.0
N	255	250	194	182	263

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended vendor training courses in the past 12 months.

On the other hand, when we look at the permanency dimension, the share of vendor training held by casuals has increased steadily, from under 7 per cent in 1989 to over 22 per cent by 2001–2005. Certainly there are long-term changes in the labour force partly influencing these results. After all, the share of casuals in the workforce increased by about 10 percentage points during this period. At the same time, the results for casuals are also being influenced by other factors. The

most likely candidate is occupational change. As noted earlier, the share held by salesworkers of vendor training has grown considerably over time and amongst this occupational group casual employment status is very common (averaging 40 to 50 per cent over this period). Clearly, the more that salesworkers undertake vendor training, the more likely it is that a greater proportion of casuals will be included in the intake.

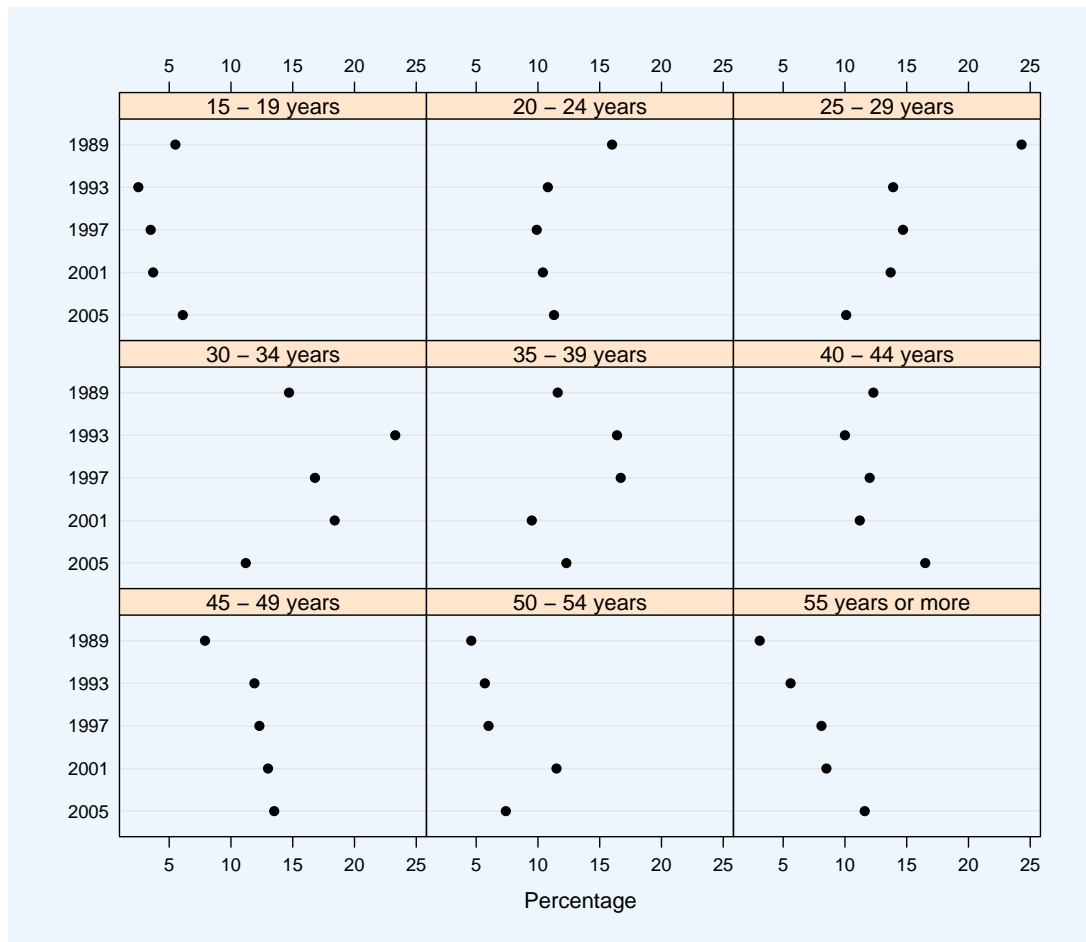
◇ 5.5 Demographic background

There has been little variation in the gender composition of employees undertaking vendor training over the period 1989 to 2001. Males accounted for about two-thirds of participants, females made up the remaining one third. In 1993 the male proportion slightly increased (to 71 per cent) but in subsequent years it fell back to the long term figure of two thirds.

When it comes to age, several changes

are apparent. In general, older employees, particularly those over 45, have steadily increased their share of vendor training. While younger employees have generally lost their share, there has been some recovery for teenagers in more recent years (particularly 2005). For those in the middle years—from about 25 to 40—there have been some fluctuations but the overall pattern is one of decline (see Figure 5.3).

Figure 5.3: Age breakdown of participation in vendor training, 1989 to 2005



Source: ABS training and education surveys, 1989 to 2005. See Table A.16

◇ 5.6 Transferability of skills

One of the key themes pursued in the course of the fieldwork interviews was the extent to which vendor training imparted generic skills, rather than just skills which were specific to the vendor's own equipment. While the ABS training and education surveys did not pursue such a question directly, they did examine the extent to which skills were transferable. The ABS asked employees whether the skills they learnt on external training courses were transferable if they moved to work for another employer. The results for this 'transferability' question are shown for Australia in Table 5.6 and for NSW in Table 5.8. The

larger sample size makes it possible to also give results for vendor training courses at the national level (but not, unfortunately, at the state level).

It is clear that nearly all of the skills learnt by employees in external training courses were regarded by participants as transferable. Moreover, this situation continued to improve throughout the period. By 2005, 95 per cent of all participants regarded their training as providing skills which were transferable. In the case of vendor training, the results were equally impressive: from 1993 to 2005 about 96 per cent of participants rated their skills as transferable.

Table 5.6: Whether skills learnt in external training courses were transferable to other employers, Australia 1989 to 2005

	1989	1993	1997	2001	2005
All external training courses					
Transferable	83.1	88.3	89.6	90.1	95.4
Not transferable	16.9	11.7	10.4	9.9	4.6
Total	100.0	100.0	100.0	100.0	100.0
N	5,812	4,877	7,191	7,531	3,183
Vendor training					
Transferable	90.2	96.0	95.2	96.2	95.6
Not transferable	9.8	4.0	4.8	3.8	4.4
Total	100.0	100.0	100.0	100.0	100.0
N	159	152	167	162	251

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

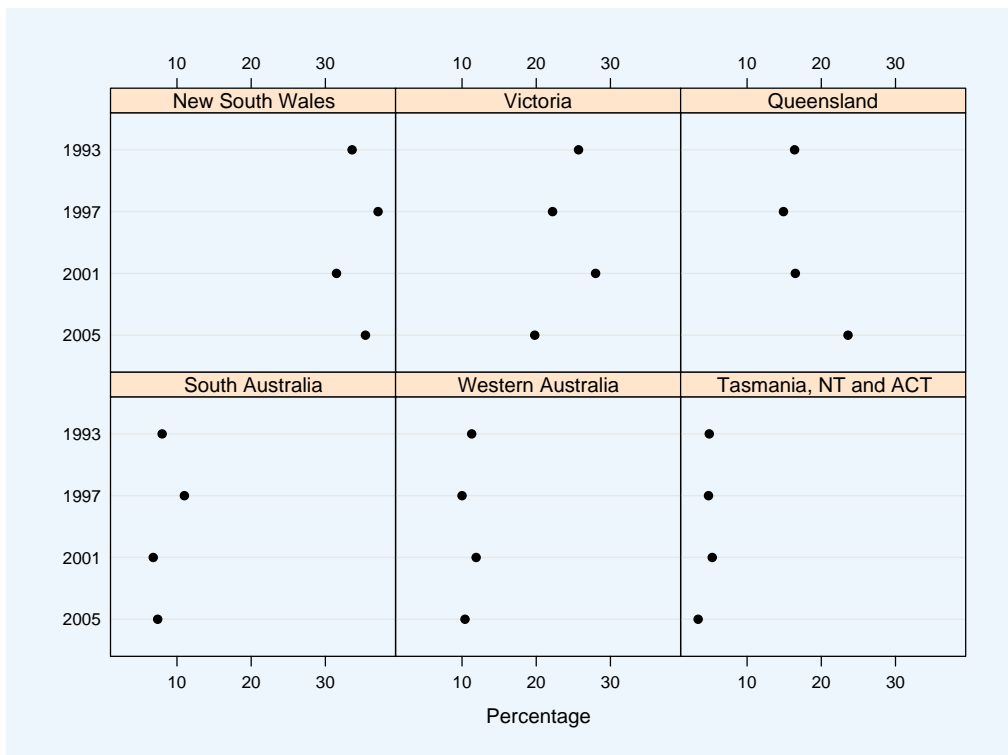
Population: All employees who attended external training courses in the past 12 months and to whom the transferability question applied.

◇ 5.7 The NSW picture

In this section I look at the same time series data just examined, but restricted to only those employees working in NSW. Before doing so, however, it is worth noting that the share of vendor training accounted for by the different states has largely remained static over the period 1993 to 2005 (in 1989 there were no state-based data available). The NSW share of national vendor training increased slightly from 34 per cent in 1993 to 37 per cent in 1997,

before dropping back to 32 per cent in 2001 and then recovering to 35 per cent in 2005. NSW's share was the largest of all the states. One notable change has been the decline in the Victorian share of vendor training over the period and the steady increase in the Queensland share. By 2005, Queensland had overtaken Victoria to become the second most important state for vendor training (at 24 per cent, compared with Victoria's 20 per cent).

Figure 5.4: State breakdown of participation in vendor training, 1989 to 2005

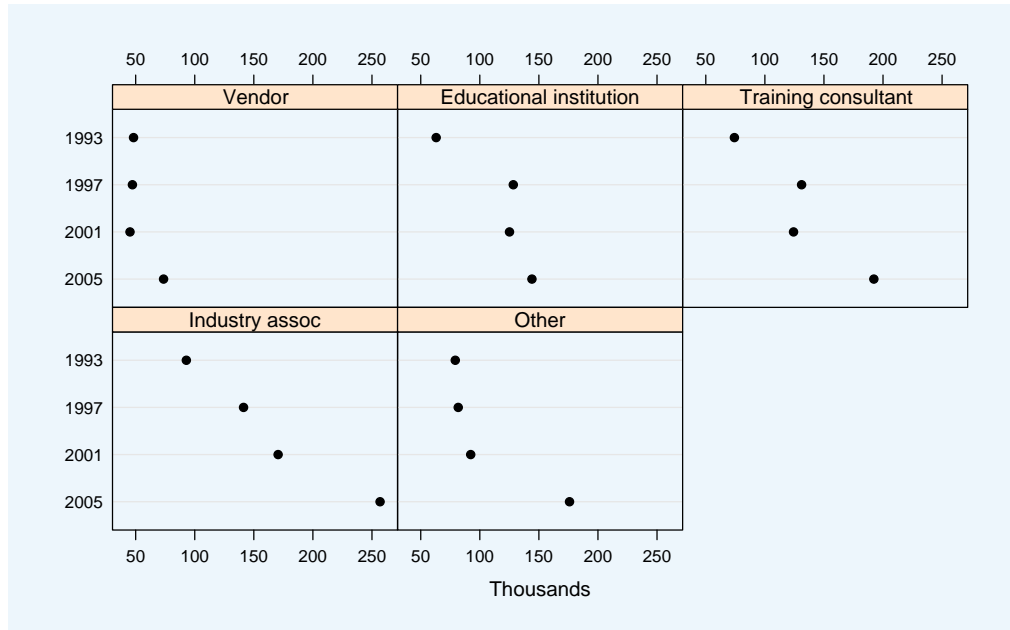


Source: ABS training and education surveys, 1989 to 2005. See Table A.17

Looking first at external training courses in general, the findings for NSW depart somewhat from the national picture. Whereas the numbers attending external courses grew steadily through the period 1989 to 2001, in NSW they slumped towards the end of the period. As Table 5.7 shows, there was good growth between 1993 and 1997—an increase of about 170,000 employees—but in the subsequent period from 1997 to 2001

the numbers grew by less than 30,000. What's more, this latter period was one in which the NSW labour force grew from 2.8 million to over 3 million. In 2005 there was a large turn-around in the figures, with the numbers engaged in external training courses in 2005 rising to nearly 850,000. As mentioned earlier, sudden changes in 2005 may reflect changes in the survey methodology, rather than changes in the labour force.

Figure 5.5: Participation in external training, NSW 1993 to 2005



Source: ABS training and education surveys, 1989 to 2005. See Table 5.7

In terms of vendor training, the NSW absolute numbers were also flat for most of period, before a revival in 2005. This pattern is emphasised by Figure 5.5, which also highlights the strong growth in absolute numbers by professional and industry associations. Because of the overall growth in external training in 2005, the share held by vendor training did not revive. As Table 5.7 shows, this figure dropped from 13.5 per cent to 8.7 per cent over the period. Further breakdowns of the vendor data for NSW, by industry or age for example, are not possible because of the small sample size involved.

As with the national figures earlier, the bottom panel of Table 5.1 is useful for assessing the overall training contribution made by external training in NSW. It shows the employee workforce for the period 1993 to 2005 and the proportion of these employees who undertook an external training course, and the proportion who undertook vendor training. The results here mirror

the national figures. There was a steady increase in employee participation in external training right through the period, rising from just 17.1 per cent in 1993 to 29.6 per cent by 2005. Again, the stagnation in vendor training is evident in the final row. It increased from just 2.3 per cent in 1993 to 2.6 per cent in 2005. This was an increase of just 13 per cent during a period when the overall training effort increased by 73 per cent.

When it comes to the issue of skills transferability (Table 5.8), the results for NSW mirrored those at the national level. Throughout the 1990s, some 90 per cent of participants rated the skills they acquired in external training courses as transferable and by 2005 this figure had reached 95 per cent.

Table 5.7: Numbers of employees participating in external training courses, NSW 1993 to 2005

Training provider	1993	1997	2001	2005
Counts				
Equipment supplier or manufacturer	48,191	47,229	45,199	73,609
Educational institution	63,055	128,335	125,134	144,117
Training consultant	74,217	131,077	124,265	192,250
Professional or industrial association	92,887	141,311	170,553	256,852
Other	79,240	81,739	92,291	175,941
Total	357,589	529,691	557,442	842,770
Percentages				
Equipment supplier or manufacturer	13.5	8.9	8.1	8.7
Educational institution	17.6	24.2	22.4	17.1
Training consultant	20.8	24.7	22.3	22.8
Professional or industrial association	26.0	26.7	30.6	30.5
Other	22.2	15.4	16.6	20.9
Total	100.0	100.0	100.0	100.0
N	536	783	702	1,007
Employee workforce)	2,085,287	2,252,809	2,427,706	2,851,747
All Training as proportion	17.1	23.5	23.0	29.6
Vendor training as proportion	2.3	2.1	1.9	2.6

Notes: Data weighted.

Source: ABS training and education surveys, 1993 to 2005.

Population: All employees in NSW who attended external training courses in the past 12 months.

Table 5.8: Whether skills learnt in external training courses were transferable to other employers, NSW 1989 to 2005

	1993	1997	2001	2005
Transferable	89.9	90.0	89.0	95.0
Not transferable	10.1	10.0	11.0	5.0
Total	100.0	100.0	100.0	100.0
N	1,080	1,556	1,516	682

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees in NSW who attended external training courses in the past 12 months and to whom the transferability question applied.

Appendix \diamond A

Additional tables

The following tables provide additional details for the material presented in Chapter 3, where many of these tables are referenced. In addition, the data used for the Figures in Chapters 3 and 4 are also included in this appendix.

Table A.1: Industry breakdown of main training providers for unaccredited training, Australia 2005 (column percentages)

	Main training provider							Total
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other	
Agriculture, forestry & fishing	4.0	8.2	10.8	10.1	0.0	3.1	1.4	6.4
Mining	0.4	0.3	0.6	0.2	0.4	0.2	0.2	0.4
Manufacturing	10.8	6.6	8.2	3.9	3.1	5.9	19.4	8.3
Electricity, gas & water supply	3.6	0.2	2.1	1.8	0.7	0.1	0.0	1.7
Construction	9.1	5.0	10.9		1.9	3.8	2.3	7.1
Wholesale trade	2.7	3.2	4.0	0.5		3.0	8.8	3.3
Retail trade	28.6	24.7	7.8	15.9	4.0	17.2	10.8	15.6
Accomm, cafes & restaurants	1.5	2.3	2.2	0.5	1.9	2.6	0.1	1.9
Transport & storage	1.5	1.1	1.3	0.5	0.3	4.4	7.1	2.1
Communication services	4.6	0.9	0.8	0.1	0.0	7.7	1.3	2.9
Finance & insurance	14.2	7.1	8.6	13.1	21.5	8.9	6.4	10.9
Property & business services	7.5	8.0	12.8		23.6	7.1	22.5	10.8
Government	0.3	0.2	1.1	0.6	0.3	0.2	0.5	0.6
Education	0.2	1.0	2.2	17.5	3.9	1.4	4.9	2.7
Health & community services	4.5	12.6	12.3	27.1	33.8	18.9	10.9	14.1
Cultural & recreational services	0.3	11.2	6.2	7.5	2.7	6.0	2.5	4.7
Personal & other services	6.0	7.4	8.2	0.9	1.8	9.4	0.6	6.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	201	78	675	114	116	171	103	1458

Notes: Data weighted.

Source: SEUV 2005.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.2: Industry breakdown of main training providers for unaccredited training, Australia 2005 (row percentages)

	Main training provider								Total	N
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other			
Agriculture, forestry & fishing	14.3	7.4	59.0	9.2	0.0	8.9	1.2		100.0	66
Mining	22.4	4.1	52.1	2.7	6.8	9.2	2.7		100.0	37
Manufacturing	29.8	4.6	34.7	2.8	2.7	13.1	12.4		100.0	81
Electricity, gas & water supply	47.1	0.7	42.1	6.0	3.0	1.1	0.1		100.0	69
Construction	29.3	4.1	53.4		1.9	9.6	1.7		100.0	66
Wholesale trade	19.3	5.7	43.0	0.8		16.8	14.4		100.0	37
Retail trade	41.9	9.2	17.4	5.9	1.8	20.2	3.7		100.0	116
Accomm, cafes & restaurants	17.9	7.2	40.7	1.4	7.4	25.0	0.4		100.0	37
Transport & storage	16.4	3.1	22.2	1.3	1.0	38.1	17.8		100.0	58
Communication services	36.8	1.8	9.5	0.2	0.1	49.1	2.5		100.0	37
Finance & insurance	29.7	3.8	27.5	7.0	14.1	14.9	3.1		100.0	96
Property & business services	15.9	4.3	41.2		15.5	12.1	11.0		100.0	79
Government	11.6	2.3	65.7	5.9	4.0	5.4	5.1		100.0	142
Education	1.9	2.1	28.4	37.8	10.4	9.6	9.7		100.0	136
Health & community services	7.4	5.2	30.4	11.2	17.2	24.5	4.1		100.0	200
Cultural & recreational services	1.7	13.7	45.4	9.2	4.1	23.2	2.7		100.0	122
Personal & other services	20.8	6.5	43.2	0.8	2.0	26.2	0.5		100.0	79
Total	22.8	5.8	34.9	5.8	7.1	18.3	5.3		100.0	1458

Notes: Data weighted.

Source: SEUV 2005.

Population: All employees whose employees undertook unaccredited training in the past 12 months.

Table A.3: Industry breakdown of main training providers for unaccredited training, Australia 2007 (row percentages)

	Main training provider										Total	N
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other					
Agriculture, forestry & fishing	9.9	14.8	28.7	1.6	0.0	18.8	26.2	100.0	49			
Mining	10.8	25.6	30.6	4.8	22.6	39	100.0	39				
Manufacturing	14.1	2.1	57.4	7.5	12.1	3.2	3.6	100.0	108			
Electricity, gas & water supply	53.7	5.5	30.3	0.2	4.3	3.8	6.8	100.0	35			
Construction	15.0	2.9	37.5	0.2	4.3	24.2	15.9	100.0	103			
Wholesale trade	14.7	3.3	65.5	0.7	0.7	11.4	15.8	100.0	28			
Retail trade	42.0	3.8	26.7	3.1	0.7	12.3	12.3	100.0	131			
Accomm, cafes & restaurants	13.0	9.7	36.0	25.1	0.5	15.5	15.5	100.0	31			
Transport & storage	12.9	0.7	51.1	5.4	10.8	5.9	13.2	100.0	72			
Communication services	41.8	28.9	12.0	5.9	11.4	11.4	11.4	100.0	20			
Finance & insurance	17.0	0.5	20.2	23.7	1.9	30.7	6.0	100.0	77			
Property & business services	3.0	0.8	59.4	7.7	14.6	11.7	2.7	100.0	287			
Government	1.8	3.2	68.7	11.3	3.0	5.8	6.1	100.0	71			
Education	3.8	0.8	29.3	11.3	18.3	20.3	16.2	100.0	83			
Health & community services	3.0	5.4	33.8	17.1	16.4	19.6	4.7	100.0	146			
Cultural & recreational services	1.8	11.2	55.3	1.7	3.6	18.0	8.4	100.0	50			
Personal & other services	52.3	10.8	30.9	2.3	2.3	2.3	1.4	100.0	46			
Total	15.4	3.5	41.8	8.4	8.8	13.9	8.2	100.0	1376			

Notes: Data weighted.

Source: SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.4: Industry breakdown of main training providers for unaccredited training, Australia 2007 (row percentages)

	Main training provider							Total
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other	
Agriculture, forestry & fishing	1.9	12.8	2.1	0.6	0.0	4.1	9.6	3.0
Mining	0.3	2.9	0.3		0.2	0.6	0.3	0.4
Manufacturing	6.0	3.9	9.0	5.9	8.9	1.5	2.9	6.5
Electricity, gas & water supply	0.7	0.3	0.1			0.1	0.2	0.2
Construction	7.3	6.2	6.7	0.2	3.7	13.1	14.6	7.5
Wholesale trade	2.4	2.4	3.9		0.2		4.8	2.5
Retail trade	48.8	19.4	11.4	6.6	1.5	14.8	26.8	17.9
Accomm, cafes & restaurants	1.7	5.6	1.7	6.0	0.1		3.8	2.0
Transport & storage	3.1	0.8	4.6	2.4	4.6	1.6	6.0	3.7
Communication services	1.3		0.3	0.7	0.3		0.6	0.5
Finance & insurance	6.6	0.8	2.9	16.9	1.3	13.3	4.4	6.0
Property & business services	5.1	6.3	37.7	24.4	43.9	22.4	8.6	26.5
Government	0.0	0.3	0.6	0.5	0.1	0.2	0.3	0.4
Education	0.8	0.8	2.4	4.6	7.0	5.0	6.7	3.4
Health & community services	2.9	22.9	12.0	30.2	27.5	21.0	8.5	14.8
Cultural & recreational services	0.2	4.4	1.8	0.3	0.6	1.8	1.4	1.4
Personal & other services	10.9	10.0	2.4	0.9		0.5	0.6	3.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	164	55	712	76	115	139	115	1376

Notes: Data weighted.

Source: SEUV 2007.

Population: All employees whose employees undertook unaccredited training in the past 12 months.

Table A.5: Occupational background of employees receiving unaccredited training, Australia 2005 & 2007 (%)

	Main training provider							Total
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other	
2005								
Managers	15.5	17.2	20.5	25.9	23.1	16.5	17.2	19.1
Professionals	13.8	12.7	20.5	17.6	25.1	24.1	13.8	19.1
Technicians & tradespersons	27.8	11.4	12.7	5.3	5.2	11.0	19.0	14.7
Community & personal service workers	2.1	5.1	4.0	11.7	4.4	4.3	10.0	4.5
Clerical & administrative workers	22.1	28.6	23.4	17.5	34.4	21.7	13.9	23.1
Sales workers	12.5	15.1	6.7	10.8	5.9	8.5	9.9	9.0
Machinery operators & drivers	3.6	1.1	5.3	3.9	0.5	4.6	5.1	4.1
Labourers	2.7	8.8	6.9	7.2	1.5	9.3	11.2	6.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2007								
Managers	9.9	8.9	9.7	5.4	7.0	7.7	11.1	9.0
Professionals	14.3	11.5	9.9	11.8	6.6	9.7	13.2	10.8
Technicians & tradespersons	10.0	10.4	12.6	14.2	15.5	12.3	10.1	12.2
Community & personal service workers	15.6	15.1	15.0	10.6	16.2	16.1	14.5	15.0
Clerical & administrative workers	9.4	10.8	8.8	9.9	6.3	8.5	9.3	8.8
Sales workers	10.8	13.2	14.0	15.1	14.9	15.0	13.4	13.7
Machinery operators & drivers	14.1	15.6	15.1	17.3	17.0	16.8	14.0	15.4
Labourers	15.9	14.6	15.0	15.7	16.5	14.0	14.3	15.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted. Multiple responses allowed. Percentages are for employer responses, not employers.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.6: Reasons for undertaking unaccredited training, Australia 2005 & 2007 (%)

	Main training provider							Total
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other	
2005								
Award or EBA requirement	9.5	9.5	9.5	9.7	9.4	9.3	9.4	9.5
Leg, regulatory or licensing require	9.4	7.7	8.4	8.6	9.0	8.5	7.7	8.6
Maintain prof standards/industry stand	7.1	7.9	6.3	7.1	5.5	7.4	8.0	6.9
Improve quality of services/ goods	7.7	6.2	7.9	6.2	7.9	7.3	6.2	7.5
Responding to new technology	4.8	8.1	8.1	8.2	8.8	8.4	8.4	7.5
To remain competitive	9.0	8.9	9.3	9.5	8.1	8.8	8.6	9.0
Provides skills required for the job	5.9	5.8	5.2	4.5	6.3	4.1	5.0	5.2
Develop flexible & responsive workforce	8.6	8.2	7.9	8.9	7.5	8.1	9.2	8.2
Cost effective	9.6	9.5	9.5	8.9	9.4	9.5	9.3	9.5
To increase/ update skills	9.6	9.5	9.4	9.6	9.4	9.5	9.4	9.5
To meet highly specific training needs	9.4	9.5	9.0	9.2	9.3	9.5	9.4	9.3
No accredited training for this industry	9.4	9.2	9.5	9.7	9.4	9.6	9.4	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2007								
Award or EBA requirement	10.0	9.9	9.6	9.7	9.6	10.0	9.4	9.7
Leg, regulatory or licensing require	9.9	8.6	8.5	5.9	7.3	7.3	8.2	8.2
Maintain prof standards/industry stand	7.9	6.3	6.3	7.9	6.9	6.9	6.3	6.8
Improve quality of services/ goods	6.0	8.9	7.5	8.2	7.7	6.4	8.7	7.4
Responding to new technology	5.7	9.5	8.2	9.7	7.6	8.8	8.4	8.0
To remain competitive	9.2	9.4	8.7	9.6	9.2	8.9	9.3	9.0
Provides skills required for the job	5.4	4.2	6.1	4.4	6.2	4.2	4.4	5.4
Develop flexible & responsive workforce	8.3	8.2	8.3	8.8	8.6	9.0	8.3	8.5
Cost effective	9.5	9.8	9.5	9.6	9.5	10.0	9.3	9.6
To increase/ update skills	9.8	7.6	9.4	9.6	9.5	9.9	9.3	9.5
To meet highly specific training needs	8.2	7.8	8.3	7.1	8.3	8.5	9.1	8.2
No accredited training for this industry	10.0	9.8	9.6	9.7	9.6	10.0	9.4	9.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted. Multiple responses allowed. Percentages are for employer responses, not employers.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.7: Reasons for using main training provider, Australia 2005 & 2007 (%)

	Main training provider							Total
	Vendor training	Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other	
2005								
Only suitable provider available	29.7	13.4	18.2	25.6	12.9	16.5	27.2	20.5
Expertise not available elsewhere	26.6	1.4	7.2	5.9	16.4	17.6	11.7	14.4
Content of training course suitable	9.4	35.8	28.9	12.8	25.2	23.4	10.7	22.0
Cost effective	4.9	7.9	4.1	13.0	0.6	5.2	9.7	5.0
Access/ convenient location	1.9	21.1	6.1	3.7	2.5	3.2	12.0	5.1
Convenient time/ flexible time	1.8	11.8	7.0	0.2	1.1	2.3	2.1	4.1
Used previously and satisfied	1.3	6.8	8.1	3.0	6.8	3.0	0.0	4.8
Specialists/ high level of ind knowledge	22.4	0.8	16.7	31.3	32.9	28.0	25.3	21.7
Partnership/ affiliation with organisation	0.4	0.0	0.7	2.2	0.5	0.7	1.3	0.7
Flexibility/ customised approach	0.0	0.2	2.0	0.0	0.5	0.1	0.0	0.8
They approached us	0.1	0.9	0.9	2.3	0.2	0.1	0.0	0.5
Training provided with product/ service	1.4	0.0	0.2	0.0	0.3	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2007								
Only suitable provider available	16.2	22.4	20.2	34.2	13.1	15.7	26.6	19.5
Expertise not available elsewhere	21.3	10.0	11.8	3.2	5.1	8.2	1.9	11.1
Content of training course suitable	15.9	14.5	21.5	11.6	40.9	26.3	6.4	21.5
Cost effective	5.6	3.3	7.9	16.4	3.0	5.8	4.8	7.0
Access/ convenient location	1.1	7.8	5.3	0.3	6.3	7.1	3.1	4.6
Convenient time/ flexible time	3.3	6.0	9.9	5.7	0.4	3.4	8.1	6.4
Used previously and satisfied	1.3	1.1	7.1	0.3	7.9	3.4	0.9	4.7
Specialists/ high level of ind knowledge	20.3	7.6	11.3	18.0	21.3	26.4	26.4	16.9
Partnership/ affiliation with organisation	7.1	0.2	0.7	3.2	1.0	0.8	16.0	2.6
Flexibility/ customised approach	0.0	13.3	0.9	0.0	0.6	2.2	0.0	1.3
They approached us	1.9	13.8	3.5	6.4	0.3	0.6	5.9	3.2
Training provided with product/ service	6.0	0.0	0.0	0.6	0.0	0.0	0.0	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted. Multiple responses allowed. Percentages are for employer responses, not employers.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.8: Availability of comparable nationally recognised training, Australia 2005 & 2007 (%)

	Vendor training	Main training provider						Total
		Educ inst	Private provider	Govt dept	Prof assoc	Industry assoc	Other	
2005								
Yes	1.8	14.7	5.8	2.6	9.2	1.9	6.6	4.8
No	71.2	47.8	58.4	78.7	57.3	58.6	49.2	61.4
Didn't explore	23.1	29.4	25.5	12.9	28.1	33.6	12.0	25.4
Can't say	3.9	8.1	10.2	5.8	5.4	5.9	32.1	8.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2007								
Yes	4.7	3.0	13.4	1.7	21.2	21.3	7.9	12.1
No	74.6	71.1	46.7	71.7	38.7	44.7	53.5	53.5
Didn't explore	18.6	19.0	34.7	23.0	25.0	24.0	27.7	27.8
Can't say	2.0	6.9	5.1	3.6	15.1	10.0	11.0	6.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.9: Availability of comparable nationally recognised training by industry, Australia 2005 & 2007 (%)

	Was nationally recognised training available?				Total	N
	Yes	No	Did not explore	Can't say		
2005						
Agriculture, forestry & fishing	3.6	75.6	19.1	1.8	100.0	141
Mining	5.7	73.2	14.8	6.3	100.0	87
Manufacturing	4.5	57.4	32.0	6.1	100.0	198
Electricity, gas & water supply	1.6	91.2	3.5	3.7	100.0	102
Construction	13.4	52.5	31.9	2.2	100.0	164
Wholesale trade	10.0	60.3	22.3	7.4	100.0	111
Retail trade	11.4	60.5	23.4	4.7	100.0	285
Accomm, cafes & restaurants	20.2	47.6	27.6	4.5	100.0	140
Transport & storage	13.6	71.2	13.9	1.3	100.0	169
Communication services	5.2	55.6	37.3	1.9	100.0	109
Finance & insurance	3.2	62.3	24.8	9.7	100.0	197
Property & business services	12.2	56.7	19.6	11.5	100.0	164
Government	12.8	56.0	23.2	8.0	100.0	220
Education	17.7	62.3	12.3	7.8	100.0	256
Health & community services	8.4	62.0	25.6	4.1	100.0	323
Cultural & recreational services	16.5	48.4	30.0	5.1	100.0	216
Personal & other services	10.9	68.6	17.2	3.3	100.0	138
Total	9.9	60.2	24.4	5.5	100.0	3020
2007						
Agriculture, forestry & fishing	16.4	64.0	18.0	1.6	100.0	104
Mining	23.6	53.4	19.3	3.7	100.0	87
Manufacturing	14.0	47.1	33.7	5.3	100.0	255
Electricity, gas & water supply	10.9	70.1	12.3	6.7	100.0	50
Construction	11.6	38.2	44.9	5.3	100.0	189
Wholesale trade	1.9	55.6	37.5	5.0	100.0	74
Retail trade	13.7	57.0	22.3	6.9	100.0	324
Accomm, cafes & restaurants	40.5	31.8	16.0	11.7	100.0	96
Transport & storage	9.4	60.9	24.9	4.8	100.0	196
Communication services		73.9	18.2	7.8	100.0	57
Finance & insurance	3.3	75.6	20.0	1.1	100.0	176
Property & business services	13.4	55.1	24.7	6.9	100.0	558
Government	24.7	39.1	28.8	7.4	100.0	110
Education	23.7	47.0	14.4	14.9	100.0	170
Health & community services	16.9	49.0	21.7	12.3	100.0	258
Cultural & recreational services	21.2	49.7	18.2	10.9	100.0	136
Personal & other services	16.8	64.0	11.0	8.2	100.0	92
Total	14.1	53.9	25.2	6.8	100.0	2932

Notes: Data weighted.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.10: Main training provider for unaccredited training, NSW 2005 & 2007 (column percentages)

	2005			2007		
	NSW	Rest Aust	Total	NSW	Rest Aust	Total
Vendor training	23.5	22.4	22.8	19.7	13.3	15.4
Educational institution	5.7	5.8	5.8	5.1	2.7	3.5
Private provider	31.8	36.5	34.8	37.6	43.8	41.8
Government department	4.9	6.3	5.8	9.0	8.1	8.4
Professional association	5.7	8.0	7.1	10.8	7.9	8.8
Industry association	19.8	17.5	18.3	9.5	15.9	13.9
Other	8.6	3.4	5.3	8.4	8.1	8.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	216	1245	1461	256	1121	1377

Notes: Data weighted.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.11: Main training provider for unaccredited training, NSW 2005 & 2007 (row percentages)

	2005				2007			
	NSW	Rest Aust	Total	N	NSW	Rest Aust	Total	N
Vendor training	37.3	62.7	100.0	201	41.2	58.8	100.0	164
Educational institution	35.9	64.1	100.0	78	47.0	53.0	100.0	55
Private provider	33.1	66.9	100.0	676	28.9	71.1	100.0	713
Government department	30.5	69.5	100.0	114	34.4	65.6	100.0	76
Professional association	28.9	71.1	100.0	116	39.1	60.9	100.0	115
Industry association	39.2	60.8	100.0	172	22.0	78.0	100.0	139
Other	58.6	41.4	100.0	104	32.8	67.2	100.0	115
Total	36.3	63.7	100.0	1461	32.2	67.8	100.0	1377

Notes: Data weighted.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.12: Occupational background of employees receiving unaccredited training, NSW 2005 & 2007 (%)

	2005			2007		
	NSW	Rest Aust	Total	NSW	Rest Aust	Total
Managers	17.0	17.3	17.2	9.6	9.7	9.7
Professionals	15.7	16.4	16.2	11.3	11.8	11.6
Technicians & tradespersons	19.7	15.4	17.0	12.0	11.4	11.6
Community & personal service workers	4.4	4.4	4.4	15.4	15.3	15.3
Clerical & administrative workers	20.0	22.6	21.7	8.5	9.6	9.2
Sales workers	8.9	9.9	9.5	13.6	13.1	13.3
Machinery operators & drivers	5.6	6.0	5.9	15.2	14.9	15.0
Labourers	8.6	7.9	8.1	14.5	14.4	14.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted. Multiple responses allowed. Percentages are for employer responses, not employers.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.13: Reasons for undertaking unaccredited training, NSW 2005 & 2007 (%)

	2005			2007		
	NSW	Rest Aust	Total	NSW	Rest Aust	Total
Award or EBA requirement	9.0	8.9	8.9	9.8	9.6	9.7
Leg, regulatory or licensing require	8.6	8.5	8.5	8.6	8.3	8.4
Maintain prof standards/industry stand	7.2	7.8	7.6	7.0	7.1	7.1
Improve quality of services/ goods	8.0	7.9	7.9	7.4	7.4	7.4
Responding to new technology	8.0	8.2	8.2	8.1	8.5	8.4
To remain competitive	8.7	8.5	8.6	9.1	8.9	9.0
Provides skills required for the job	6.6	6.5	6.5	4.5	5.1	4.9
Develop flexible & responsive workforce	8.3	8.3	8.3	8.4	8.6	8.5
Cost effective	8.9	8.9	8.9	9.5	9.5	9.5
To increase/ update skills	8.9	8.9	8.9	9.6	9.3	9.4
To meet highly specific training needs	8.8	8.8	8.8	8.2	8.2	8.2
No accredited training for this industry	8.9	8.8	8.8	9.8	9.5	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted. Multiple responses allowed. Percentages are for employer responses, not employers.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.14: Reasons for using main training provider, NSW 2005 & 2007 (%)

	2005			2007		
	NSW	Rest Aust	Total	NSW	Rest Aust	Total
Only suitable provider available	21.2	20.1	20.5	16.0	21.3	19.5
Expertise not available elsewhere	16.6	13.2	14.4	7.6	12.9	11.1
Content of training course suitable	20.9	22.6	22.0	23.1	20.7	21.5
Cost effective	2.9	6.2	5.0	7.9	6.6	7.0
Access/ convenient location	5.4	4.9	5.1	8.4	2.7	4.6
Convenient time/ flexible time	4.9	3.7	4.1	7.0	6.1	6.4
Used previously and satisfied	4.0	5.3	4.8	1.6	6.3	4.7
Specialists/ high level of ind knowledge	23.2	20.8	21.7	14.9	17.9	16.9
Partnership/ affiliation with organisation	0.1	1.0	0.7	5.3	1.2	2.6
Flexibility/ customised approach	0.4	1.0	0.8	2.9	0.5	1.3
They approached us	0.0	0.9	0.5	2.6	3.5	3.2
Training provided with product/ service	0.5	0.4	0.4	2.6	0.3	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted. Multiple responses allowed. Percentages are for employer responses, not employers.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.15: Availability of comparable nationally recognised training, NSW 2005 & 2007 (%)

	2005			2007		
	NSW	Rest Aust	Total	NSW	Rest Aust	Total
Yes	12.2	8.5	9.9	14.2	14.0	14.1
No	58.9	61.0	60.2	56.8	52.1	53.8
Didn't explore	25.6	23.6	24.4	21.4	27.2	25.1
Can't say	3.2	6.9	5.5	7.6	6.7	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted.

Source: SEUV 2005 and SEUV 2007.

Population: All employers whose employees undertook unaccredited training in the past 12 months.

Table A.16: Age breakdown of participation in vendor training, 1989 to 2005 (%)

	1989	1993	1997	2001	2005
15 - 19 years	5.5	2.5	3.5	3.7	6.1
20 - 24 years	16.0	10.8	9.9	10.4	11.3
25 - 29 years	24.3	13.9	14.7	13.7	10.1
30 - 34 years	14.7	23.3	16.8	18.4	11.2
35 - 39 years	11.6	16.4	16.7	9.5	12.3
40 - 44 years	12.3	10.0	12.0	11.2	16.5
45 - 49 years	7.9	11.9	12.3	13.0	13.5
50 - 54 years	4.6	5.7	6.0	11.5	7.4
55 years or more	3.1	5.6	8.1	8.5	11.6
Total	100.0	100.0	100.0	100.0	100.0

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended vendor training courses in the past 12 months.

Table A.17: State breakdown of participation in vendor training, 1989 to 2005 (%)

	1993	1997	2001	2005
New South Wales	33.6	37.1	31.5	35.4
Victoria	25.7	22.2	28.0	19.8
Queensland	16.4	14.9	16.5	23.6
South Australia	8.0	11.0	6.8	7.4
Western Australia	11.3	10.0	11.9	10.4
Tasmania, NT and ACT	4.9	4.8	5.3	3.4
Total	100.0	100.0	100.0	100.0

Notes: Data weighted.

Source: ABS training and education surveys, 1989 to 2005.

Population: All employees who attended vendor training courses in the past 12 months.

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