

Approaches to measuring and understanding employer training expenditure

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Industry Skills Council

Publisher's note

Additional information relating to this research is available in *Approaches to measuring and understanding employer training expenditure—Support document*. It can be accessed from NCVER's website <<http://www.ncver.edu.au/publications/2016.html>>.

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About the research



Approaches to measuring and understanding employer training expenditure

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While it is recognised that employers invest a substantial amount of money and time in training, the exact nature and amount of this investment is poorly measured and understood. This project set out to supplement the available data, which have many limitations, with more detailed data for selected industries. However, it became quickly apparent that this was not possible.

It found that good data on employer-funded training are extremely difficult to capture, not only because of the diversity by which employers meet their skill needs, but also because many employers do not keep accurate records. As a consequence, the report focuses on measurement issues rather than hard, quantitative data.

Nevertheless, *Approaches to measuring and understanding employer training expenditure* offers some insights into aspects related to training expenditure across firms in the four selected industries: construction, retail trade, manufacturing and health and community services (with support provided by the Community Services and Health Industry Skills Council).

Key messages

- Some of the drivers for investment in training—such as government employer incentives—are common across industries; others—such as compliance with regulations, shortages, labour turnover and exposure to competition—will vary, depending on specific industry circumstances.
- The common perception is that small firms tend not to invest in training to any great extent. This research suggests that the traditional split between high-spending large firms and their small low-spending counterparts does not always reflect actual practice.
- One of the difficulties in getting an accurate picture of the training landscape is that a significant amount of informal training is not recorded.

The research also suggests how a national survey of employer training expenditure and practices might best be implemented in the future. The authors argue that collecting data based on employers' impressions is better than having no data, especially where baseline data can be supplemented with in-depth qualitative research. In considering any future survey, however, it would be important to understand the key policy initiatives that the outputs are likely to inform so that a manageable and robust survey can be designed. It also needs to be borne in mind that collecting training practices data is problematic, because training is often decentralised and suitable records are not retained.

Tom Karmel
Managing Director, NCVER

Contents

Executive summary	6
Introduction	9
Australian and international surveys	11
Overview	11
Surveys in Australia	12
Surveys overseas	16
Observations	19
Training expenditure: Level, funding, distribution and drivers	21
Expenditure on training and its funding	21
Training expenditure and funding: Variation by industry	23
Recording training expenditure	30
Factors driving training expenditure	32
Conclusion	35
Overview	35
Review of the major surveys	35
Findings from the expert interviews and case studies	36
Looking forward	38
References	39
Appendix: Statistics on employment and training	40
Support document details	49

Executive summary

It is reasonable to say that past approaches to collecting information on employer training expenditure and practices have not been robust. There are issues in relation to the validity and reliability of the data collected, conflicting estimates from various quantitative sources, contradictory evidence from qualitative research and a lack of good comparative international data.

It is also recognised that collecting such data is problematic. While the major national survey, Employer Training Expenditure and Practices (TEPS), conducted by the Australian Bureau of Statistics (ABS), did meet its main objective in providing broad-level training expenditure data, it did not sufficiently probe the type, nature and extent of training activity undertaken by employees. In many firms suitable records of the training undertaken are not clear. Where records are kept, there may be significant logistical issues in bringing the records together, particularly in large public sector organisations.

This project, conducted in the context of these limitations, explored ways in which information on employer expenditure has been gathered and how it could be improved and involved interviews with experts and stakeholders and case studies of firms in four industries: construction, retail trade, manufacturing, and health and community services. It also involved looking at Australian and international surveys related to employers and employer expenditure.

The following research questions were addressed:

- ✧ What data do firms maintain on training activity?
- ✧ What expenditure is made on vocational training by employers and what is the balance between various forms of training and groups of people?
- ✧ How are these different forms of training funded: government, employer and individual?
- ✧ Can the variation in expenditure and sources of funding across industries and firms be explained?
- ✧ What are the implications for policies that would encourage employers to increase their total investment in learning and development?

It was expected that the methodology for the project would provide information on a range of aspects relating to training expenditure, although the qualitative approach used in this report was not expected to yield exact quantitative findings. This was confirmed at an early stage in the study when it became clear that neither industry experts nor firms themselves appeared able to provide good quantitative information on spending. To focus more effectively on this, the participants in the case studies were asked to consider the questionnaire used in the Employer Training Expenditure and Practices Survey to establish the items for which they could provide useful responses and those which would be less readily answered.

Data

The case studies confirmed that it was difficult for most organisations to answer the quantitative questions on expenditure asked in the Employer Training Expenditure and Practices Survey. In smaller organisations very few records were kept and estimates of training expenditure by managers in these organisations were little more than informed guesses. In the larger organisations more extensive records of training activities and expenditure on training were kept, but they often covered only part of the training provided.

Types of expenditure and training

The case studies and the interviews were able to give useful insights into training provision. They indicated a high level of variation in training expenditure between employers, even in the same sector. Size was a factor, but often smaller employers outspend larger employers per employee. The case studies illustrated the spread of nationally recognised training, especially among larger organisations. Support from government funding (for example, for apprentices) led to an emphasis on the training of younger entrants, but the importance of training existing workers was stressed by many participants in the interviews and case studies. However, the lack of training records and data on training expenditure maintained by the case study organisations made it difficult for the research team to assess the relative amounts of expenditure on training across different groups in the workforce.

Funding

Most of the organisations included in the case studies received government funding to underwrite their training programs; the funding largely comprised the incentives associated with apprenticeship and traineeship programs and support for training under user choice. The availability of government funding persuaded senior executives in larger organisations to commit to training programs; however, it played little part in their ongoing commitment to the training of employees.

It did seem that the majority of the costs of training in organisations are borne by the employer. The research suggested that, although there was little direct confirmation of this, individual employees played a very minor role in the funding of the training they received and this is restricted to certain types of formal training. The cost of informal and unaccredited training is borne solely by the employer.

Drivers

The research probed the drivers of training at the organisational level. The key drivers, from the case studies and from the expert interviews, appear to be the availability of government funds, skills and labour shortages, the need to improve the overall capability of organisations, and compliance with external regulations and legislative or licensing requirements. A further driver was the desire to project an image as an ‘employer of choice’ in a tight labour market. The relative importance of these factors varied from one organisation to another, and between different industries. In construction, shortages were a major factor. In retail trade, where turnover was high, becoming an employer of choice was important. In manufacturing, international competition was seen to be driving training of existing workers. Compliance with regulations or standards was important across all sectors, but especially so in community services and health.

Expanding employer spending?

The research has contributed some understanding of the drivers of training and hence of the factors that could support its expansion.

Employers respond to mandated changes in the minimum levels of training for employment in a particular occupation. This has been most obvious in the changes in the community services and health sector. Related to this is the effect of the firm’s quality assurance regimes, whether voluntarily entered, such as the ISO 9000, or mandated, such as the registration requirements for aged care facilities, which specify the need for trained staff.

The effects of other factors are more varied. For example, employers may react to shortages by providing training, but they have also looked for shorter forms of training in targeted skill sets rather than full qualifications and, as argued by the Australian Industry Group, the pressures of international competition may stimulate training provision. The provision of training to become recognised as an employer of choice has been fostered and adopted in some industries, but the extent to which it will drive training expenditure is not clear. The concern to build firm capability affects different firms in various ways, although this generally prompts an increase in training.

Surveys

This project focused on three Australian surveys and two overseas surveys. The main Australian survey considered was Employer Training Expenditure and Practices—which is no longer conducted. Its aim was to provide an overall picture of employer expenditure on structured training, information on the reasons for training or not training, and some detail on the characteristics of the firms, the types of training, the forms of provision, the people receiving it and the subsidies obtained. It was necessary for this research to consider what this survey had covered and alternative ways of gaining relevant information through the available surveys.

Analysis of the surveys suggested the following enhancements to existing surveys to enable information on the measurement of employer training expenditure to be captured more successfully.

- ✧ To validate and supplement the Employer Training Expenditure and Practices Survey it may be possible to make greater use of the Survey of Education and Training, also conducted by the Australian Bureau of Statistics (ABS 2006a). This survey has more detail about the training that employees receive in Australian workplaces; however, it would require some modification to clarify the range of training activities covered.
- ✧ The Survey of Employer Use and Views of the VET Sector conducted by the National Centre for Vocational Education Research (NCVER) provides additional information on employers' practices and has the potential to be adapted, in conjunction with the other surveys.
- ✧ The English and European surveys, unlike the Employer Training Expenditure and Practices Survey, estimate the wages and salaries paid to workers during training. Some ways of estimating these wages and salaries should be considered for future Australian surveys.
- ✧ It is worth undertaking a survey like Employer Training Expenditure and Practices. Stakeholder and expert opinion and case studies of firms and industries may help in understanding training expenditure but will not provide the quantitative baseline data that can be obtained by a national survey.
- ✧ A fairly short survey along the lines of the corresponding English survey may be sufficient to produce an approximate estimate of the broad parameters and provide fairly consistent data over time and across different categories of employers.

Summing up

Understanding expenditure on training and the links that training has to the business situation of firms can be obtained by industry studies and by studies of particular firms. The case studies and interviews in this project highlighted the relationship between training and skills shortages, retention of workers, government subsidies, and the link between training and the business plan and the importance of informal learning much more clearly than the data provided in the Employer Training Expenditure and Practices Survey.

Case studies of firms and industries will not, however, yield coherent information on the overall level and distribution of expenditure on training. There is still a strong case for continuing with surveys that provide some quantitative measures of employer training expenditure.

Introduction

There are many research and policy issues for which good information on employer expenditure on training could be of assistance (see Cully 2002). Estimates of employer expenditure draw attention at a very basic level to the range and size of training activity supported by employers. Such activity has not received explicit attention in the recent work of the Council of Australian Governments, where the objective is to raise skill levels in industry. The focus of policy has been almost wholly on accredited training. Information on the bigger picture of training, including the size and nature of unaccredited structured training provided by employers, is also important in skills development. Information on employer expenditure is also relevant to the issues associated with the sharing of the costs of training.

In brief, it is important to get better information on:

- ✧ what employers spend on training
- ✧ how they finance it
- ✧ the purposes for which they undertake it
- ✧ on whom the spending is made
- ✧ what drives employers' training activities.

While information on each of these items is important, it is the relationships between them and understanding the drivers of training that are important for policy. It is reasonable to claim that past approaches to collecting information on employer training expenditure have not been strong in helping to understand what lies behind employer training expenditure in the modern economy. There are also issues in relation to the validity and reliability of the data collected, as the following examples demonstrate.

- ✧ *Contradictory evidence from qualitative research*: the findings from the many case studies of training activities within firms often show a higher level of volume and sophistication in training provision than might be assumed from the statistical data alone (Dawe 2003).
- ✧ *Lack of good international comparative data*: international comparisons can be useful for policy to indicate differences in expenditure and the factors that underpin these differences. The Australian Bureau of Statistics (ABS) Employer Training Expenditure and Practices Survey (TEPS) (ABS 2003a) asked questions that are broadly comparable with overseas surveys but it differs in several important details.
- ✧ *Lack of consistent data over time*—estimates from the Training Expenditure and Practices Survey for the year 2001–02 are not strictly comparable with estimates from earlier surveys due to changes in the questions asked. It is therefore difficult to estimate changes in employer training activity.¹

The aim of the project was to examine the various approaches to measuring and understanding employer expenditure on training. It was, however, constrained by limitations in the current data.

¹ This was in part due to deliberate changes in the survey with a view to improving the base data for future estimates.

The project involved:

- ✧ a critical review of the literature on the nature, financing and recording of employer training and in particular the nature of the major surveys carried out in Australia and overseas
- ✧ interviews with industry training experts and stakeholders to explore the ways in which different forms of training are financed, how training is recorded and what information was likely to be available at the enterprise level that could be collected
- ✧ case studies to examine these issues at a deeper and more grounded level, with a particular focus on the types of training provided, the financing of training and the measurement and recording of training and training-related activities. Case studies were originally planned for the construction industry, the retail trade industry and the manufacturing industry. With the support of the Community Services and Health Industry Skills Council the studies were extended to that sector.

The research questions considered in the study were:

- 1 What expenditure on vocational training is made by employers and what is the balance between various forms of training and groups of persons?
- 2 How are these different forms of training funded by governments, employers and the individual?
- 3 What data do firms maintain on training activity and how can these activities be effectively measured?
- 4 Can the variation in expenditure and sources of funding across industries and firms be explained?
- 5 What are the implications for policies designed to encourage employers to increase their total investment in learning and development?

The proposal for this project indicated the intention of documenting the full range of expenditure on formal and informal training for firms in several industry groups as well as the training (accredited and unaccredited) related to the vocational education and training (VET) sector that occurs in firms; the funding sources; the funding models used by firms; and the role of VET sector reforms in encouraging expenditure.

While this could imply the provision of both quantitative and qualitative data, the methodology proposed to the National Centre for Vocational Education Research (NCVER) was qualitative: interviews with experts and stakeholders and case studies.

In the event, the interviews with experts and stakeholders and the early case studies made it clear that the project could yield information that could assist in understanding the employers' provision of training. However, they experienced difficulties in providing quantitative information and they had very little actual quantitative data.

At this stage of the project it was agreed with NCVER that the ABS questionnaire for the last Employer Training Expenditure and Practices Survey (ABS 2003a) would be discussed with the case study participants. This was to probe their capacity to provide such information if requested in future surveys. It is particularly relevant to research question 3 listed above. The results are reported in the chapter 'Training expenditure: Level, funding, distribution and drivers' of the study, with further detail on the case studies in the support document. The analysis of the interviews with key stakeholders and case studies in selected industries—manufacturing, construction, retail trade, and health and community services—is also provided in this chapter.

This specific use of the ABS questionnaire in the case studies indicated a need to clearly outline what was covered by the ABS survey. In any case, in a study concerned with measuring employer training expenditure it was necessary to consider the existing ways of collecting data on employer training expenditure. For this reason, a review of the major surveys in Australia and comparisons with those in Europe and England are provided in the following chapter.

Australian and international surveys

Overview

This chapter reviews the main ways in which data have been collected on employer training activities and expenditures in Australia and overseas. It considers the main surveys undertaken in Australia, which are:

- ✧ the Employer Training Expenditure and Practices Survey conducted by the Australian Bureau of Statistics
- ✧ the Survey of Education and Training conducted by the Australian Bureau of Statistics
- ✧ the Survey of Employer Use and Views of the VET Sector conducted by NCVER.

Also considered are two international surveys:

- ✧ the Continuing Vocational Training Survey (CVTS) in Europe
- ✧ the National Employers Skills Survey (NESS) in England.

The surveys cover to a greater or lesser extent:

- ✧ study for a recognised qualification (accredited training) supported by an employer through the payment of fees, the provision of paid study leave, or some other means of support
- ✧ unaccredited structured training provided by the employer, which may involve courses that include attending classes or seminars, as well as self-paced computer-assisted learning. It may be held in the workplace or away from the workplace. On some definitions it is specified as ‘off the job’
- ✧ informal training that includes ‘learning by doing’, usually on the job. It can include watching other workers, being shown by supervisors or other workers, or reading a manual. The tacit knowledge that underlies much of the work of organisations is generally derived from informal learning.

Nearly all employer surveys cover the first two: study for a qualification (accredited training) and unaccredited structured training. There is an attempt to measure the extent of these forms of provision and the funds expended on them by employers.

Employer surveys often attempt to get an indication of whether informal training is provided. The English survey attempts to estimate the hours of such training received by employees and the hours of the employees delivering it—and their wages and salaries (Learning and Skills Council 2006, appendix B6). One of the issues for consideration is whether informal training can be clearly distinguished from unaccredited structured training.

In this context the study by Richardson (2005) can be noted. This was an attempt to measure employer expenditure indirectly from the variation in workers’ wages and salaries according to years of experience and tenure. The nature of the estimates is such that they could not be readily updated to provide an indication of employer training over a period of several years. Their usefulness for

the purposes of research and current policy is limited. They do, however, serve to draw attention to the importance, if largely unmeasurable extent, of informal on-the-job learning.²

Surveys in Australia³

Three surveys are considered: the ABS Employer Training Expenditure and Practices Survey, the ABS Survey of Education and Training and the NCVET Survey of Employer Use and Views of the VET Sector.

Employer Training Expenditure and Practices 2001–02

The ABS conducted surveys of employer expenditure in 1989–90, 1993–94 and 1996–97. In June 2002 in relation to the financial year 2001–02 it sought to measure employer practices vis-a-vis *structured and unstructured* training and the expenditure on *structured* training (ABS 2003a). The survey was undertaken by mail questionnaire but supported by a post-enumeration survey conducted in person with some data providers. The most recent survey was commissioned and funded by the former Australian National Training Authority (ANTA). No further surveys are currently scheduled.

The survey yielded information on several aspects of employer expenditure:

- ✧ gross direct expenditure on structured training, including wages and salaries of dedicated trainers
- ✧ subsidies and/or grants received for the structured training of own employees
- ✧ payments received from attendees at internal training courses who were not employees
- ✧ net direct expenditure on structured training (gross expenditure minus subsidies etc.)
- ✧ net direct training expenditure per employee.

Related data are included on:

- ✧ large and small employers by industry
- ✧ workers by occupation (limited classification) and details of employees and other workers, apprentices and permanent employees
- ✧ internal and external training
- ✧ type of training (organisation-specific, occupation-specific, literacy and numeracy, personal development, health and safety, general computing, management and supervisory, induction)
- ✧ forms of employer support for training
- ✧ whether training was nationally recognised
- ✧ providers of external training
- ✧ information on the reasons for training or not training.

The 2002 survey was notably different from earlier surveys in that it did not seek to provide data on the wages and salaries of employees while undergoing training or the wages and salaries of people who provided training but whose main job was not training.

² The wages and salaries of more experienced workers are assumed to reflect the cumulative effect of the on-the-job learning which employers have supported. A range of further assumptions underlie this indirect approach to measuring employer training expenditure. For instance, wages are assumed to reflect productivity. While this is a central tenet of much of labour economics, an extensive literature questions this assumption (see for instance Lazear 1999). It is further assumed that the effects of experience and tenure (controlled for an array of related variables) result from training provided in the workplace and that this training is not freely acquired and incidental to the work but is instead to a large degree at the expense of the employer or the worker. The final estimates of the total contribution of employers to training depend on further assumptions about discount rates and the share of the costs borne by the employer.

³ Expert advice and comments from the Australian Bureau of Statistics on this section are gratefully acknowledged.

The ABS (2003b) in its end-of-survey report on the Training Expenditure and Practices Survey noted that its post-enumeration survey found that key concepts in the survey generally were well understood but that some areas of concern were identified including:

- ✧ unstructured training—over one-third of employers providing training had problems with reporting this, mainly due to lack of records
- ✧ expenditure on structured training—due to a lack of accurate records or access to relevant data, a number of employers were required to estimate their training expenditure.

Survey of Education and Training 2005

Every four years the ABS has carried out a household survey on education and training. This is a Special Social Survey in the household survey program. It is a survey of people, not employers. The survey provides information on the number of people trained and whether they received financial support. It provides information on hours spent on ‘work-related’ training courses, the wages and salaries of employed people, including those providing training and the time that trainers spend on training. Thus it has the potential to provide a substantial part of the picture of expenditure on education and training. In particular it might be used to provide an estimate of the wages and salary cost of people undertaking training for which relevant data were not collected in the Training Expenditure and Practices Survey in 2002.

The ABS has undertaken work using the 1996 Training Expenditure Survey and the 1997 Survey of Education and Training that suggests that the latter could be used to make a fairly good estimate of the value of the wages and salaries for people undertaking training in aggregate, if not by industry (ABS 2004).

However, it would be desirable if the scope of the Survey of Education and Training could be revised. This survey considers training courses separately from study for a qualification. It appears that any course that leads to a qualification, which would include apprenticeship and traineeship courses, would generally not be reported as a training course here, although there may be some double-counting. The types of courses covered as training courses are shown in the following box. The Survey of Education and Training provides the hours of training for these courses, and the number of people undertaking study for a qualification is given, but there is no measure of hours of employer-supported time associated with study for the qualification. Hence the amount of employer-supported activity in this survey appears to be considerably less than would be reported in an employer survey such as the Training Expenditure and Practices Survey.

Some related issues for the Survey of Education and Training are listed below.

- ✧ Analysis of the Confidentialised Unit Record File (CURF) showed that there are a considerable number of people reporting that they are under contracts of training but who do not indicate that they are taking a course of study leading to a qualification.
- ✧ There may be some degree of double-counting of courses leading to a qualification and those reported as ‘work-related’ training courses.
- ✧ The Survey of Education and Training publication noted that for the 2005 survey, ‘training’ only refers to courses undertaken to obtain, maintain or improve employment-related skills or competencies. ‘On the job’ training has been excluded. For the 2001 survey, ‘training’ included ‘on the job’ training. In the 1997 survey the term ‘training’ also *included any study undertaken towards the completion of an educational qualification* (ABS 2006a, p.66). The intention of this decision for the 2005 survey about on-the-job training was to exclude informal unstructured training. However, since some structured courses, including those leading to a qualification, are designed to be taken on the job, there is a case for reconsidering the concepts and the words used in the survey questions.

The ABS is considering its next survey of education and training and such issues will be reviewed.

Survey of Education and Training prompt on training courses

The questionnaire for the 2005 Survey of Education and Training (ABS 2006a, p.28) states:

'The following questions are about work-related training you have done in Australia [including training undertaken to help get a job]. Later questions will ask about your formal educational qualifications'.

"During the last 12 months have you completed any of these types of training courses in relation to work?" *Show Prompt Card 8*

Prompt card 8 includes, in a simple readable format, 'Examples of training courses:

Training seminars; Training workshops; Talks or lecture presentations; Classroom-style presentations; Training conferences (Include: Tele/video conferencing); Other group training sessions; Audio-visual presentations; Demonstration training sessions (For example: Equipment, Health & Safety); Self-paced training courses'.

Survey of Employer Use and Views of the VET Sector 2005

This employer survey provides considerable information on employer involvement in training but it is not intended to estimate expenditures. The survey provides an indication of the engagement of employers with various forms of training and a range of information relating to current skill levels, training and business plans.

The survey sought employers' views on engagement with the VET system, which had three aspects:

- ✧ vocational qualifications as a job requirement
- ✧ the employment of apprentices or trainees
- ✧ the provision of nationally recognised training (excluding apprentices or trainees).

The survey also sought information on the extent of:

- ✧ the provision of unaccredited structured training
- ✧ the provision of informal training
- ✧ no provision of training.

The Survey of Employer Use and Views of the VET Sector does not provide estimates of how many employees were engaged, the cost of the employer's activity or who pays for it.

Table 1 brings together some of the main features of these three surveys as they relate to expenditure.

Table 1 Comparison of sources of data on employer training expenditure

	Employer Training Expenditure and Practices 2001–02	Survey of Education and Training 2005	Survey of Employer Use and Views of the VET Sector 2005
Collection			
Population	Employers	People	Employers
Method of collection	Self-enumerated mail-back survey	Computer-assisted personal interview	Computer-assisted telephone interview
Sample size	Sample of 7100 employers, final sample size 5889	Initial sample 18 500 households with 13 900 fully responding, 27 577 people	A total of 25 604 employers selected to yield an in-scope selection of 6418 to achieve the total of 4601 interviews
Scope	All industries, excluding: agriculture, forestry and fishing Excludes private households employing staff, some other minor exclusions Excludes non-employing businesses	All people aged 15 and over—questions on training asked of those aged 15–69 Private dwellings only, and some minor exclusions	All organisations throughout Australia that have at least one employee
Reference period	12 months—July 2001 to June 2002	Current year (2005) for questions on qualification study For training courses questions refer to previous 12 months	Last 12 months for most questions
Collection frequency	Last survey 2002—no schedule for future surveys	4-yearly	Recent survey substantially changed from previous survey in 2001
Data/content			
Employees	Wage and salary earners who received pay for any part of the last pay period ended on or before 30 June 2002	Employees for latest survey (some minor definitional differences from labour force collections), self-identified wage and salary earners for previous surveys	Employers were asked for the total number of employees working in or operating from the organisation that received pay in the last pay period
Gross wages and salaries of employees receiving training	Not collected in 2002 (collected in earlier surveys)	Earnings of employees Whether at least one work-related training course taken in last 12 months Hours of work-related training courses undertaken. The extent to which courses of study for a qualification are distinguished from training courses needs further investigation	Not collected
Dedicated trainers	Employees whose main job was involved in the preparation, administration, presentation and/or assessment of training to other employees from the same employer during the period 1 July 2001 to 30 June 2002	Employees who usually spend all of their time on education or training activities in their main/current job/business	Not collected
Non-dedicated trainers	Not collected in 2002, collected in previous surveys	Employees who usually spend part of their time on education or training activities in their main/current job/business	Not collected
Gross wages and salaries (GWS) of employees providing training	GWS of dedicated trainers during the period 1 July 2001 to 30 June 2002	Earnings of dedicated and non-dedicated trainers Total hours worked Hours that dedicated and non-dedicated trainers worked in training activities	Not collected

	Employer Training Expenditure and Practices 2001–02	Survey of Education and Training 2005	Survey of Employer Use and Views of the VET Sector 2005
Fees paid to external providers	Fees to external training providers	Not collected	Not collected
Other expenditure on training	Training facilities; training equipment; travel, accommodation and meals for participating in training courses; membership fees, donations and levies for training; computer-assisted structured training; other direct expenditure on structured training period 1 July 2001 to 30 June 2002	Not collected	Not collected
Subsidies/grants	Subsidies/grants received from government for formal training of employees; and subsidies received from private organisations during the period 1 July 2001 to 30 June 2002.	Not collected	Not collected
Payments	Payments received from external attendees of internal training courses	Not collected	Not collected

Source: The framework and some information in this table are adapted from the ABS (2004).

Surveys overseas

Two surveys are considered: the English National Employers Skills Survey and the Third Continuing Vocational Training Survey in Europe.

National Employers Skills Survey (NESS) 2005

This survey is conducted annually and is a major undertaking. The 2005 survey involved 74 000 interviews with employers. It is conducted by a research firm on behalf of the Learning and Skills Council, the Department for Education and Skills and the Sector Skills Development Agency. The survey has been designed to provide measures, by sector and at local and regional level, of:

- ✧ how many employers have difficulty finding suitably skilled new recruits to fill vacant positions, how many vacancies remain unfilled in each of the major occupational categories, and what skills are in short supply
- ✧ how many employers face skills deficiencies among their workforce, how many (and which) employees are affected, and the nature of the skills challenges they face
- ✧ the extent to which employers develop the skills and assess the skill needs of their workforce, and the extent to which such activities are a feature of wider strategic planning
- ✧ employer use of (and satisfaction with) further education colleges as providers of workforce development.

The third and fourth items provide information related to employer expenditure. The sections of the report on employer training and workforce development activities report on:

- ✧ how many employers provide training, how much of it they provide in terms of number of days, to how many workers, in which occupations
- ✧ the types of training they provide

- ✧ the extent to which they source training and development opportunities through further education colleges, for what types (subjects) of training and how successfully, and the extent to which colleges engage with employers in planning their provision
- ✧ the extent to which employers plan their training activity and engage human resource practices and processes to support this planning.

The survey asked employers separately whether, over the last 12 months, they had provided:

- ✧ off-the-job training, defined as training that takes place away from the individual's immediate work position and/or
- ✧ on-the-job training, defined as activities that would be recognised as training by staff, but not the sort of learning by experience which takes place on an ongoing basis.

These definitions are not the same as those used in the ABS Training Expenditure and Practices Survey. Structured training as defined by this survey covers at least the first point, off-the-job training. However, some activities included by the National Employers Skills Survey as on-the-job training might also be considered as structured training by the Training Expenditure and Practices Survey.

The National Employers Skills Survey classifies training as 'job-specific', 'health and safety', 'induction training in new technology' and 'supervisory'. It also probes the extent of planning of training activities within enterprise planning.

In its 2005 survey it made a major revision to the way it considered expenditure on training:

The NESS questionnaire has, since 2003, contained a straightforward question asking employers how much they spent on training over the past 12 months. This question asked just for out-of-pocket expenses and not staff time and thus excluded a very significant part of training expenditure. Furthermore, it asked for total expenditure and did not break this down into constituent elements. This approach does not probe respondents to consider costs they might not have remembered and has thus not been taken as a reliable estimate even of out-of-pocket training expenditure. For this reason the LSC [Learning and Skills Council] and DfES [Department for Education and Skills] commissioned IFF Research to undertake a separate Cost of Training study to provide detailed estimates on employer expenditure on training.

(Learning and Skills Council 2006, p.207)

As part of this survey a supplementary survey was organised among firms participating in the main survey. Information on expenditure was collected from over 7000 employers. The cost survey was quite short and many of the questions might involve the person completing the form making an informed guess rather than using actual records.

The survey reports on expenditure on both on-the-job and off-the-job training. It reports on the costs of provision of training and costs of wages and salaries for workers while undergoing training. A summary of the 2005 data is given in table 2. Note that the Australian Bureau of Statistics employer survey for 2001–02 does not use the same classifications and specifically excluded all of the trainee labour costs (items a, i, and k) and trainers' labour costs for on-the-job training (item I). These make up nearly 70% of the costs reported in the English survey.

Table 2 Training cost components, England 2005

	Cost £ million	%
<i>Off-the-job training: course-related</i>		
(a) Trainee labour costs	4 173	13
(b) Fees to external providers	1 654	5
(c) On-site training centre	2 287	7
(d) Off-site training centre (in the same company)	381	1
(e) Training management	5 100	15
(f) Non-training centre equipment and materials	446	1
(g) Travel and subsistence	337	1
(h) Levies minus grants	-67	*
Total off-the-job training: course-related:	14 311	43
<i>Off-the-job training: other (seminars, workshops etc.)</i>		
(i) Trainee labour costs	1 788	5
(j) Fees to external providers	708	2
Total off-the-job training: other (seminars, workshops etc.)	2 496	7
<i>On-the-job training:</i>		
(k) Trainee labour costs	9 998	30
(l) Trainers' labour costs	6 526	20
Total off-the-job training: other (seminars, workshops etc.)	16 524	50
Total	33 331	100

Source: Learning and Skills Council (2006, p.151).

The Third Continuing Vocational Training Survey (CVTS)

Three surveys of firms across Europe have been carried out, the latest in 2006 for the 2005 year (Eurostat 2006). This survey provides a range of data on the nature of training, reasons for training and who has access to it. It distinguishes initial vocational training (IVT) from continuing vocational training (CVT), with apprenticeships as the main element of the former.

The issues of concern in developing the third survey are familiar ones. Eurostat (2006, p.3) notes that revisions were aimed at reducing the burden of the survey on enterprises and improving the quality of key variables. In particular it noted that: 'On costs of CVT courses, there was a need for data quality improvements. A key element of such an improvement should be a consideration of the scope and form of cost information held by enterprises.' And 'On the issue of "qualitative variables" the participating countries strongly supported a structured revision with the objective of the development of an indicator on the "professionalism of enterprises in the pursuit of their training activities".'

The survey attempts to make a clear distinction between continuing vocational training courses and other forms of continuing vocational training. Continuing vocational training courses comprise internal courses managed by the enterprise and external courses managed by third parties. Other forms include planned learning by on-the job-training; planned learning through job-rotation, exchanges, secondments or study visits; attendance at learning/quality circles; self-directed learning; and attendance at conferences, workshops, trade fairs, and lectures.

The questionnaire addresses structural data on the enterprise, continuing vocational training activities of the enterprise, continuing vocational training courses, training policy of the enterprise, reasons for non-provision of continuing vocational training courses or other forms of continuing vocational training and initial vocational training.

Estimates of costs are made for continuing vocational training *courses*. Expenditure data were collected on the provision of courses including:

- ✧ fees and payments for courses
- ✧ travel and subsistence payments

- ✧ labour costs of internal trainers for continuing vocational training courses
- ✧ costs for training centres, training premises or specific training rooms of the enterprise in which these courses take place and costs for teaching materials
- ✧ payments for collective training arrangements such as levies and receipts from government or collective arrangements
- ✧ paid working time of employees while taking courses (in some detail, including by gender, by field and by type of provider for external training).

Observations

The Australian Employer Training Expenditure and Practices Survey sought to provide an overall picture of employer expenditure on structured training, some information on the reasons for training or not training, and information about the characteristics of the firms, the type of training, the forms of provision and the subsidies obtained. Overall the information is at a fairly high degree of aggregation and even if of high quality it would be useful largely as setting the broad context within which one would wish to analyse employer training activity. The household-based Survey of Education and Training does provide considerably more information than the Training Expenditure and Practices Survey on the amount of training employees receive and the forms of training. It has potential for greater use in conjunction with an employer expenditure survey. The NCVET Survey of Employer Use and Views of the VET Sector provides additional information on employers' practices and also has the potential to be developed in conjunction with the other surveys.

The English and European surveys are interesting because they aim to cover a wider range of expenditures than the Australian Training Expenditure and Practices Survey. They too have concerns about quality, but this has not deterred them from estimating employer expenditure on the wages and salaries of workers undergoing training and, in the English case, the cost of less formal training. The embedding of the English survey of training costs in the broader skills survey has much to recommend it. The link between expenditure on training and skill needs is one of importance and may be better understood through data on both being collected in the same survey.

Particular observations that arise from this overview include the following.

- ✧ The 2002 Training Expenditure and Practices Survey excluded questions that would allow the derivation of the wage and salary cost of employees while they were on training courses. This was because of the ABS assessment of the likely poor quality of such data collected and the excessive load on the respondents. The English and the European surveys do collect this information relating to the wage costs of people undergoing training. In this regard the comment by the ABS (2001) in conjunction with the planning of the 2002 version can be noted:

A cruder approach to measurement: Our approach to date is to create the measure of an employer's expenditure in a 'bottom up' manner from its individual components. Could a top down approach be taken as is done in some other surveys? For example the EU CVTS2 asks businesses to report the total participants in courses, and paid working time over a 12 month period and the UK LTW survey asks total off the job training. The data would most likely not have the same quality but would it be fit for purpose? (ABS 2001)

In other words, is it worth collecting data, a large part of which is based on employers' impressions or guesses? It may be that it is. A good deal of policy work by government involves consultations with a range of groups in the community and draws not on exact data but on the accumulated knowledge and judgement of experienced people. If we are gathering this type of information through surveys, we would hope that the method of collection was such that the data had reasonable consistency over time and across different sectors of employers.

- ✧ The Survey of Education and Training has a potentially rich source of data for the estimation, or at least approximation, of the main elements of employer training expenditure, but this has not been exploited yet to any notable extent. The ABS has undertaken work using the 1996

Training Expenditure Survey and the 1997 Survey of Education and Training that suggests that the latter could be used to make a fairly good estimate of the value of the wages and salaries in aggregate if not by industry (ABS 2004). However, there is a need to probe the extent to which responses about study leading to a qualification are distinguished from training courses in the survey, particularly since many courses taken entirely in the workplace can now lead to qualifications.

- ✧ The ABS, through its statutory position and access to taxation office information, is able to obtain a much higher response rate for its employer surveys than other organisations, including NCVET.⁴ This is relevant to any consideration of whether future surveys on employer expenditure could be attached to the Survey of Employer Use and Views of the VET Sector or remain with the ABS.

⁴ In this context the large difference in the estimated number of firms employing apprentices in the Training and Employer Expenditure Survey and the Survey of Employer Views of the VET Sector can be noted. See also Cully (2005, table 1).

Training expenditure: Level, funding, distribution and drivers

This part of the project aimed to elucidate the types of training-related data that employers keep and their ability to report accurately on training expenditure and factors affecting it. Within this broad objective, the following research questions were addressed:

- ✧ What expenditure on VET-related training is made by employers and what is the balance between various forms of training and groups of persons?
- ✧ How are these different forms of training funded: government, employer and individual?
- ✧ Can the variation in expenditure and sources of funding across industries and firms be explained?
- ✧ What data do firms maintain on training activity?
- ✧ What are the implications for policies that would encourage employers to increase their total investment in learning and development?

The information was sought using a qualitative methodology: a series of interviews with experts in the industries selected and ten case studies of firms. Twenty-four interviews were conducted with employer associations, unions, government agencies and other groups such as skills councils, as well as a focus group with members of the Enterprise Registered Training Organisations Association. Ten case studies of organisations in the community services and health, retail trade, manufacturing and construction industries were also carried out. A full listing of interviewees and the findings of the case studies is provided in the supporting document.

Expenditure on training and its funding

Most of the experts interviewed for the project believed that the training expenditure by employers in recent years had been volatile. In most cases interviewees felt training expenditure was highest in larger firms and that smaller firms tended not to invest in training to any great extent. This is, of course, a very common view and is borne out by successive iterations of the ABS training expenditure surveys and other research. However, some industry interviewees recognised that the traditional split between high-spending large firms and low-spending small firms did not always reflect actual practice in particular industries. In the retail sector, for example, one interviewee distinguished between high and low training commitment employers but commented that high training commitment employers were not always the larger firms:

My view is that there's one group of employers who are genuinely committed to training ... generally speaking, they are probably at the bigger end of the spectrum, but not exclusively, because there are some small players who also take that general approach. But at the other end of the spectrum there are a group of employers who are only involved in training because ... it gives them access to government funding. I think that group of employers tend to be at the smaller end, although a number of those are part of franchise arrangements so they might appear to be monolithic organisations but they're actually franchise holders.

In general, the case study organisations were supporting quite high levels of training expenditure and activity. In some cases this included major investments in training sustained over long periods of time such as at Large Retail where the establishment of the Large Retail Institute had helped to sustain a

very high level of training activity for many years in that organisation. However, at the time of interview it was clear that the future of the institute was in doubt, with a major restructuring of the organisation. Somewhat similar were the developments at Stanley Motor Corporation, which had instituted a very comprehensive training program for all levels of employees and was extending this program into the supply chain. At the time of the study Stanley was planning to establish a Stanley Institute which would centralise the entire organisation's training activities, including company training, sales training and training for suppliers into one large training organisation. The Ivybush Hospital said their expenditure on training was 1.75% of wages and salaries and John Community Services, 3.4%. These are levels of training investment at or above the average for Australia as a whole reported in the last Training Expenditure and Practices Survey (ABS 2003a) and above the minimum investments that were legislated in the Training Guarantee of the early 1990s.

Interviewees tended to agree that the bulk of training investment by employers was made in entry-level training for new entrants. This was seen to be the result of government policies in the area of apprenticeships and traineeships. The numbers of apprentices and trainees have mushroomed in recent years. Although not the only reasons for the expansion of the system, the employment subsidies offered by the Australian Government and the adoption of user choice funding by state and territory governments has had a major impact on the willingness of employers to take on apprentices and trainees. Many of the interviewees argued that, although government subsidies do not cover the cost of employing and training apprentices and trainees, funding plays a critical role in determining employer training priorities. In this case, the growth of the apprenticeship and traineeship system and the funding that underpins it has strongly encouraged employers to invest in entry-level training at the expense of the training of existing workers. This is a theme that has been taken up recently by the Australian Industry Group (2006). In possible contradiction to this view, it should be noted that much of the expansion of existing older worker traineeships in retail and in a number of other industries was stimulated by the extension of the availability of Commonwealth employer subsidies to existing workers, even though user choice funds were not available for those workers. It appears that the Commonwealth incentives were less of an influence where training is more expensive to provide and the user choice support is consequently more important.

The evidence from the case studies tends to paint a more varied picture. Although entry-level training was a major component of the training offered by all of the organisations studied, ongoing workplace training for existing workers was also very high. This was particularly true in the manufacturing and the community services and health case studies. It appeared that a considerable amount of training provided in these sectors was to existing workers. Much of this training was informal and on the job. Such training, of course, tended to escape the training recording systems used in the organisations. In the retail sector, Mavericks Bakeries, a national franchised chain of bakeries, provided a very high level of support centrally to its franchisees to provide training in customer service, new product and marketing for all their staff. Although the organisation employed trainees and apprentices, the bulk of the training provided in Mavericks has been to support ongoing product and marketing campaigns and improve levels of customer service. In construction, the emphasis was more clearly on entry-level training with relatively little ongoing training provided to existing workers.

To sum up:

- ✧ There is significant variation in training expenditure both within and between industry sectors. Despite the volatility of training expenditure within and between sectors, many organisations are supporting a high level of training investment, sometimes in excess of 3% of gross wages and salaries.
- ✧ Although there is a perception that training expenditure tends to be focused on new entrants to the workforce, many of the case study organisations were primarily concerned with the ongoing training of their existing workforces.
- ✧ However, as will be discussed later in the chapter, the data that most firms and industry organisations maintain to report on expenditure are very limited or impressionistic.

Training expenditure and funding: Variation by industry

In this section we discuss the findings on training expenditure and activities in the four industry sectors investigated in the case studies:

- ✧ retail trade
- ✧ manufacturing
- ✧ construction
- ✧ community services and health.

Background data for each industry are provided in the appendix. These include data on employment by age, full-time and part-time employment status, gender, occupation, qualification, labour mobility, firm size, past estimates of training expenditure and reasons for training, forms of delivery of training, support for training, training hours, employment of apprentices, and employer engagement with the VET system.

The Training Expenditure and Practices Survey reported average net employer expenditure on training (excluding any wages and salaries of those undergoing training) as a percentage of the firm's gross wages and salaries. For all of these four industries the expenditure was below the average for all industries (appendix table A1.I). The figures were:

- ✧ 0.6% for both construction and retail trade
- ✧ 1.1% for manufacturing
- ✧ 1.2% for community services and health
- ✧ 1.3% for all industries.

Wages and salaries per worker are relatively high in construction and manufacturing where the workforce is largely full-time male workers. These industries therefore rank higher on dollar expenditure employee than on their ranking by percentage of gross wages and salaries paid. In 2001–02 the estimated expenditures per employee in the four industries were: approaching \$450 in manufacturing—a little below the average for all industries—nearly \$400 in community services and health, about \$200 in construction and about \$125 in retail trade.

Retail trade

Retail trade was one of the fastest growing industry sectors in Australia, but in recent years has experienced only average growth in employment. It employs 15% of the Australian workforce. It has a small number of very large firms but is dominated by small firms. The retail industry is characterised by large numbers of female and younger workers and by part-time employees who comprise 50% of its labour force. Only about 40% of the workforce holds a post-school qualification compared with nearly 60% as the average across all industries. It has a relatively high rate of turnover of workers. The retail sector was characterised by a low level of training provision by employers, but this has changed somewhat in recent years, especially with the spread of nationally recognised training in the sector.

In the case studies of Mavericks Bakeries and Large Retail the level of training activity and expenditure appeared to be quite high and had probably increased in recent years. This was primarily as a result of the tightening labour market, the difficulty of attracting staff to work in retail, the use of Certificate II and Certificate III in Retail Operations for new entrants to the industry, and government funding.

Retail trade is also characterised by a high level of spending on informal and non-accredited training. This form of training covers compliance issues such as occupational health and safety and product knowledge training, as well as training for managers in the industry. Retail trade has not taken up the frontline manager qualifications to any great extent, as larger firms prefer to train

managers in the specific requirements of the firm. The result has been that much of the accredited formal training carried out in the retail sector has been focused on new entrants to the sector rather than on existing workers.

The availability of funding has been an important driver of the extent and coverage of training in the retail sector. Most of the interviewees agreed that funding was a very important factor, especially in the decisions that firms make when they first introduce formal and nationally recognised training. But the continuing commitment to training appears to be more rooted in the centrality of training to business strategies than to the availability of funding. However, it is considered that the majority of this formal training is to be found in the larger firms in the sector and in some of the franchise chains. The increased employer investment in training has been mainly the result of decisions by the larger firms to extend their training rather than through the efforts of other intermediaries in the sector such as registered training organisations and Australian Apprenticeship Centres. As one interviewee said:

It's not being driven by the NACs [New Apprenticeship Centres] or RTOs [registered training organisations], I actually think it's being driven the other way. I think its being driven by the big companies and if you look at the training numbers breakdown, the big companies have got significant numbers.

A major factor driving training in the retail sector has been the extent of labour turnover in the industry. The level of staff churn in the sector was very high, with some estimating it as over 30% annum (although this is much higher than the national average reported for retail trade in the appendix table A1.F). High levels of labour turnover can create perverse effects on training. Firms can respond by providing apparently high levels of training because each new employee needs some minimal level of training. But much of this may be wasted when workers leave the firm and the overall skills profile of the workforce therefore does not increase. On the other hand, training can be used to reduce turnover. In a tight labour market, retail employers have been able to use the provision of formal training and qualifications as a means of attracting good employees to the firm and to retaining good staff with career prospects with the firm. As one interviewee put it:

I think probably the retail industry is not a preferred industry for a lot of people so to find what they [firms] would categorise as good people is difficult. They are keen therefore to develop the people they've got, they're keen to hold the people they've got. They see training as a way of developing the next level of management. So I think in terms of career development, in terms of recruiting the right people, in terms of general, better overall performance I think they're the sort of things that motivate them.

In this case, training becomes part of an overall human resource management strategy to attract, retain and develop the best staff and to meet specific skills shortages in the industry. Nationally recognised training has been an important part of that human resource management strategy in the larger firms in recent years. Some of the franchise chains have also implemented formal training policies centred on qualifications, which has pulled some of the smaller employers in retail into formal training. Mavericks Bakeries provides a good example of this approach. Here the advertising campaigns of the organisation help the organisation to recruit younger people as employees. The use of nationally recognised training enables the organisation to both assure the competence of employees in the franchised outlets and develop staff who may also take over management of these stores in the future. However, much of the formal and recognised training in the industry is driven by the larger firms.

However, there was a view expressed that the spread of nationally recognised training in retail had slowed more recently. Some of the smaller and medium-sized enterprises in the industry have found the procedures and systems involved with nationally recognised training to be too cumbersome and complex. Others have had bad experiences dealing with registered training organisations and have abandoned their efforts to introduce nationally recognised training. For others, the extent and generality of training received under the training package qualifications has made firms question the need to provide all the units of competency to all employees. Large Retail

described how they now used only selected units of competence for training all new entrants to the business. This provided the skills that the firm required but also gave staff the opportunity to pursue a qualification by completing other units in their own time. For some employers, particularly the small and medium-sized firms, non-accredited and more informal training is more convenient and cost-effective. As one interviewee said:

You might have an owner that owns five stores but they really cut the profit margins as tight as they can. And they cut it here and there, and if they don't see that this training is adding any value within the short term, and accredited training doesn't deliver until medium to long. For instance, large organisation will go and spend \$1.5 million on a US thirty minute sales video. That's about convenience. They're purchasing convenience as well. You don't outsource the problem, you probably insource more work. So I think that there's double the take-up of non-accredited training, or even treble or quadruple if you include the mentoring and on-the-job stuff that occurs anyway.

Often the take-up of nationally recognised training will depend on the presence in the firm of a person with strong links to the VET system, someone who understands how to navigate the system to get the right training and to make sure that the employer benefits from the subsidies that are available. If such a person is missing, using nationally recognised and more formal training approaches may present the firm with an insuperable barrier.

Construction

Employment growth in the construction sector has been the fastest of any industrial sector in the Australian economy in recent years (as shown in appendix, table A1.A). As a result it has been at the forefront of the skills shortage crisis. The industry comprises mainly small businesses, many of which are owner-operated and employ only a few or no people. Over 80% of the workforce are males working full-time. Over a third of the workforce are tradespersons, compared with about 10% for the workforce as a whole. About half the workforce holds a qualification, most at certificate III/IV in line with the high proportion of tradespersons.

The focus for training in the construction industry has been the apprenticeship system, with a relatively low provision of training to other workers. The extensive practice of sub-contracting may militate against the extension of employer support for training beyond apprenticeships. Non-accredited training in the construction industry has been largely limited to training focused on occupational health and safety issues and informal on-the-job training.

MTC Construction provided a good example of a small family-owned business that has made extensive use of the apprenticeship system. MTC has employed relatively few permanent workers but has engaged a large number of apprentices. The apprentices are employed through a group training organisation which allows MTC to use apprentices over a variety of building projects. This gives them a range of experiences which small firms often find difficult.

There appear to be significant differences between the states and territories on training expenditure by employers in the industry. Part of the reason for this is the different regulations that apply, but also the different basis of competition. As one interviewee said:

Certainly Sydney and Melbourne, for instance, are highly competitive markets which then drives different behaviours ... non-metropolitan New South Wales or Victoria ... the builders there behave radically different ... because the competitive pressures are not as intense. You'll find that metropolitan builders ... are pretty intense. Where the focus on the bottom line is everything. Almost no incentive to invest. Because the issue there is to meet a target, to get the job completed as soon as possible and the only way you can do that is to engage experienced people where you're not so called burdened by training costs. The focus is purely to get the job done at an acceptable quality benchmark within a time frame.

The construction industry is highly cost-competitive and all expenditures are scrutinised carefully at the firm level. For this reason, employers are keen to ensure that they get value for money from

their training investments. The industry is concerned by the number of apprentices that do not complete their training and who leave the industry. Estimates given by interviewees are attrition rates of over 40% for apprenticeships in construction. This, together with the skills shortages, has put pressure on the industry to review the nature of apprenticeship. One solution proposed has been to investigate shorter, more specialised training programs that focus on a cluster of skills rather than on a full trade. These 'sub-trade' qualifications may take only a year and lead to a recognised job in the industry. This was seen by interviewees as a way of retaining young people in the industry and of providing skilled workers more quickly. As one interviewee said:

There's an attraction by the young apprentices to give up apprenticeships and to focus on one area of a particular skill. To become a paver you have to do a four-year brick layer's course. The reality is that for those who only want to ever lay pavers, there is no need to do a full brickies apprenticeship because they're never going to do arches, never going to do chimneys and all they want to be is proficient laying pavers, and that doesn't require four years to learn ... Now what they do, they become proficient at it, builders recognise that and say, you're good enough to do all my paving. I will now pay you full and above adult wage rates.

The industry has submitted this idea to the Australian Government and it has formed a major part of the recent Council of Australian Governments' decision to reform apprenticeships and move to shorter-duration qualifications. Although this might address some skill shortages in the near term, whether this will improve the supply of skills in the longer term is a moot point. Some apprentices who might otherwise have completed a four-year qualification might find a one or two-year 'sub-trade' qualification attractive and not complete the longer course.

As noted earlier, training expenditure in the industry as measured in the last Training Expenditure and Practices Survey was low (see appendix, table A1.I). It has traditionally been supported by training levies in most, though not all states and territories. However, measurement of the impact of the training levies on the total expenditure by employers on training is difficult, as different states and territories apply different rules to the use of the funds collected. Generally, training levy funds are used to support entry-level training in the industry and to defray some of the costs associated with apprenticeships. It was felt by interviewees that tracking the use of training levy funds might be a way to obtain a more complete picture of training expenditure and activity in the industry at the firm level.

Manufacturing

Manufacturing employment has been in relative and sometimes absolute decline for a considerable period of time, although output has grown, signalling a significant increase in productivity per worker. Over 70% of the manufacturing workforce are males working full-time and over a fifth of the workforce are tradespersons. About half the workforce hold qualifications of varying levels, although certificate III/IV, usually held by tradespersons, is the most common (appendix, table A1.E). Expenditure on training is about the average for all industries but tends to be focused on training more skilled groups of workers.

The expert interviewees felt that the overall level of training expenditure in the sector was increasing. The major drivers for investment in training in the sector are increasing competitiveness through higher skills levels, related skills shortages and compliance. This is very much the reason for the investments that were given at Stanley Motor Corporation. Here training is part of a global strategy to improve competitiveness, and the support of nationally recognised training has been an important element in Stanley's human resource management strategy.

The Australian Industry Group (2006) in its report, *World class skills for world class industry*, argues that firms are increasingly turning to high-skilled manufacturing operations in order to secure a competitive niche in a world market where lower-cost manufacture is dominated by China and other low labour cost countries. The fall in employment was acknowledged, but the Australian Industry Group felt that the smaller workforce had to be more highly skilled: manufacturing firms were listing skills as the most important element in the mix for greater competitiveness. Firms, large

or small, that are exposed to global competition tend to subscribe to the view of the importance of skills to the long-term viability of their operations. The Australian Industry Group data show that 30% of firms in the sector say that they intend to increase their training expenditure in the next few years to secure their skills supply. A further 65% report that they intend to keep training expenditure at the same level. These figures, however, represent intentions rather than actual budgets. Similar figures reported in the last Australian Industry Group Survey in 1998 did not always translate into actual increases in employer training expenditure in the sector.

Related to this, the case study at Exact Parts, a medium-sized manufacturing firm, indicated it had used training to underpin its business growth in recent years. All its employees undertook the Certificate III in Engineering Production. This was partly to help the organisation meet the ISO 9000 quality standard but also to overcome the skills and labour shortages that the organisation was experiencing in the local regional labour market.

Compliance issues in the sector are perceived to be increasing. These are concerned with health and safety, quality and environmental legislation. These costs are particularly heavy for smaller firms in the manufacturing sector and are a major driver of training expenditure in the small and medium-sized section of the sector. As one interviewee said:

This issue of compliance is a growing one of significance because we've got an increasing awareness of sustainability issues and general environmental issues. The legislation ramps up and so the compliance cost ramps up and so there's an increasing demand and need for it. So I'm not saying that it's a bad thing but I'm saying it is certainly a cost that needs to be addressed by the enterprise.

The length of the traditional trade apprenticeship has been of some concern and the sector is looking at the possibility of qualifications of shorter duration, such as those being considered in the construction industry, as a means of attracting more young people into the industry.

At the operator level, process manufacturing has made extensive use of nationally recognised training, with many firms training existing workers to certificate III level. Both Stanley and Exact Parts made extensive use of nationally recognised training for all production employees and for other groups such as supervisors and training staff. However, the lack of government provision for user choice support for training of existing workers has acted as a brake on the extension of training at this level in the industry. The Australian Industry Group is concerned that the focus of nationally recognised training and associated funding on new entrants is not in the interests of the manufacturing sector. The training of existing workers is viewed as a key priority for the future and for addressing the issue of skills shortages in the long term. Many jobs in the industry are becoming blurred, with people carrying out a range of tasks, from technician to operator level. As one interviewee put it:

You've got operators, tradespeople and then technicians, but there's still a shortage of technicians and there's a blurring across those traditional roles where we're now expecting operators to be doing more sophisticated things that maybe trades or technicians might have done before like process monitoring or tradespeople moving more into some of the technician work about planning and organising. There is definitely a shift in upskilling without a doubt. Because of technology it has come about that there are now a lot of technological solutions that can be easily applied to lower-level workers and that's increasing more and more. For instance stuff like CNC [computer numerical control] machining, which was rocket science 20 years ago, now anybody can do it.

This blurring of traditional job roles in manufacturing is leading to calls for more focus on the training of existing workers and to a demand for funding for higher-level qualifications such as cadetships at diploma level and above. The industry wants to see government funding become available for existing worker training at these higher levels; however, it is resistant to calls for an employer levy such as that operated by the construction industry. It is concerned about the allocation of state government training funds between industries that results from user choice

arrangements. This raises the issue of whether the training support under user choice should be more focused on priority areas.

Industry groups like the Australian Industry Group would like to see better data produced on the state of employer training expenditure but acknowledge that a trigger would be required for employers to keep this sort of data.

Community services and health

Community services and health is a large and diverse industry and includes hospitals, medical and other health services, residential care services (for aged and other groups) and social assistance services (notably child care services). As an industry it has been classified by the ABS as health and community services (but is called health care and social assistance in the new Australian and New Zealand Standard Industrial Classification [ABS 2006b]). Community services and health provides about 10% of total employment in Australia.

As shown in appendix table A1.A, average employment growth in community services and health has increased much faster than the average for all industries. (Construction is one of the few industries to have faster growth.) Nearly 80% of workers are female (about half of these part-time) compared with an average for all industries of 45%. Health and community service workers tend to be older than the average for all industries.

Nearly 40% of workers are health professionals (including doctors, nurses, dentists and allied health professionals) and about a third are intermediate clerical and service workers (for example, aged care workers). Two-thirds of community services and health workers have a non-school qualification (the highest of all industries except education). Nearly 40% of workers have degrees, about 15% had diploma or advanced diploma and about 15% had a certificate III or IV.

Most businesses are small, employing no workers to fewer than 20 workers, but there are also large public and private firms. Among private firms, about 40% of wages and salaries are paid by large firms.

Nationally recognised training is important to employers in this sector, in part because of compliance requirements. The availability of national qualifications and the employer incentives and user choice funds that may support some of this training have been very important drivers of training at the employer level in all areas of the sector.

However, the penetration of training varies considerably between the different parts of the sector as a result of the need for qualifications to practise and the traditions of training.

The health sector, in hospitals, medical and dental services and other health services, accounts for the largest part of the workforce. Although much of the training is carried out in the higher education sector, the VET sector is increasingly providing training and qualifications for these occupations.

Residential aged care is a large and growing element of employment provided in the sector. About 30% of the aged care workforce are nurses, receiving their training before entering employment. Accredited training, if not mandated, is almost essential for aged care workers under the requirements for registration of the aged care facilities. As a result, the aged care workforce is highly qualified, with about 88% of workers qualified (Richardson & Martin 2004) (although some of the stakeholders believed that figure was a little high).

Children's services account for about 10% of the community services and health workforce, but about 20% of the VET training is in this area. Mandated requirements are affecting training. Out-of-school-hours care assistants now require a certificate IV and supervisors in child care centres require a diploma. However, most children's services qualifications are at the certificate III or diploma level. All the interviewees agreed that the general trend for training in the community services and health sector is upward but there is a lack of good-quality data to support this view.

Five case studies were undertaken in this area. Most of the case study organisations showed a considerable commitment to training and its role in the organisation. Expenditure on training was quite high in all the case study organisations compared with expenditure in other service areas of the economy. The figures for total training expenditure varied from 1.6% of budget in the disabilities section of a large state department to 3.4% of the wages and salaries at John Community Services. Although much of the training effort in all of the organisations was focused on the provision of accredited training for staff, there was also a considerable level of non-accredited training activity. This often involved short courses provided externally which allowed staff to either meet regulatory requirements or to extend their professional knowledge. Thus John Community Services offered staff courses in change management, leadership and performance management. This reflected the organisation's need to develop effective management skills in a large number of employees. At Broken Bay, technician staff often attended regular weekend programs in new dental construction techniques offered by major suppliers to the industry.

There was an increasing emphasis on the delivery of training in the workplace. This applied to both formal accredited training with an on-the-job focus and to non-accredited training. All the organisations made considerable use of informal training, especially mentoring programs, with some claiming that this form of informal training accounted for 80% of their training activities. All of the case study organisations used a quite formal approach to training planning, although this was more pronounced in the larger organisations such as the Ivybush Hospital and John Community Services.

The level and type of funding available plays a critical role in the sector in driving the demand for training. In many cases major initiatives in the community services and health sector are accompanied by government funding for training such as suicide prevention, mental health and dementia care. However, this training is often highly focused on the content of the initiative, with little reference to the context of the scope of the role of the workers who will provide services to support the initiative's objectives. This can result in a lessened impact from the training. In other cases funding programs will result in formation of entire work roles. The aged care area has developed long-term plans for their skills needs but this is not so evident in other areas within the sector.

Releasing staff for training is perceived as a major cost for employers in the sector. Currently the sector is looking at two main ways of addressing this: through increasing provision of training in assessment to enable more supervisors to carry out workplace assessment; and increasing the coverage of funding for existing worker traineeships. At the moment Commonwealth incentives, which for existing workers are limited to courses of at least two years duration, are not available for some important areas of existing worker training. Nor are they available if the employee has an existing qualification relevant to their former type of employment. In addition, many employers do not have a good knowledge of the VET sector and of nationally recognised training, with the result that, although the take-up of training is increasing in community services and health, it is not as fast as might be considered desirable.

Significant features

- ✧ Government funding and compliance issues have been important in all sectors.
- ✧ Training in the retail sector has traditionally been informal and non-accredited with low employer expenditure. However, in recent years the sector has adopted nationally recognised training to ensure the skills of its workers and to help deal with high labour turnover. Training has been seen as a means of promoting 'employers of choice' to reduce turnover of staff.
- ✧ The construction sector has typically had low expenditure on employer training. Training is focused on new entrants to the industry via the apprenticeship system but the organisation of work with the extensive use of sub-contracting has militated against the development of a culture of ongoing training for staff. Shortages have been extensive with the rapid expansion of employment, but the response seems to be more directed at reducing the scope of training rather than increasing expenditure.

- ✧ Despite the shrinking of the manufacturing workforce in recent years, there is a culture of training for existing workers which has contributed to the general up-skilling of the workforce. In the future manufacturing organisations see the need for higher skills training to cope with increased technological sophistication of products and processes.
- ✧ The community services and health sector is very diverse. Occupational regulation has been a key driver for training in this sector, with suites of new qualifications introduced in recent years. VET training is spreading in the sector, a sector once dominated by university-based qualifications. Many of these qualifications are increasingly delivered in the workplace.

Recording training expenditure

All of the interviewees for the project agreed that there was a need for better data on employer investments in training. Few interviewees had access to reliable data on employer training expenditure (although it should be noted that the Australian Industry Group has recently completed extensive research on employer skills needs). State governments, industry skills councils, employer bodies and employers themselves do not have a clear picture of the state of employer training expenditure or its possible trajectory. The lack of data in this area is quite stark when it has been estimated that employer training expenditure is at least as large as government outlays on publicly funded vocational education and training and, when less formal and non-accredited training is brought into the picture, is likely to be much greater (Dumbrell 2004).

Interviewees were generally critical of the various training expenditure and training practices surveys carried out by the ABS. While it was felt that the ABS statistics gave a useful overview of the state of employer expenditure (and we draw on them above and in the appendix), the nature of the statistics did not lend themselves to a good analysis of the type of training being offered by employers, the extent of workforce participation in training, the balance of accredited and non-accredited training and the reasons why employers offered training to their employees. The New South Wales Department of Education and Training was critical of the 2001–02 Employer Training Expenditure and Practices Survey, highlighting the lack of comparability between these data and previous collections, and definitions that had been used in the collection. Staff of the ABS were quite open about the problems with the training expenditure survey. ABS staff pointed to the difficulty of arriving at agreed definitions for survey purposes and of collecting data on training that fell outside the scope of definitions of structured training. All the interviewees commented on the difficulties which the survey posed for employers in collecting data on training. The ABS reported the difficulties experienced in collecting their data because employers often did not have ready access to the required information; the ABS was therefore concerned about its accuracy.

Interviewees discussed the use of other data sources to estimate the level of employer investment in training. Sources such as the Survey of Education and Training can provide data on the training experiences of individual workers.

The case studies revealed a variety of practices with regard to the recording of training. Not surprisingly, the larger organisations collected data more systematically and comprehensively than the smaller organisations. However, this did not mean that large organisations always enjoyed easy access to thorough data on training. At Large Retail, for instance, activities and funding associated with nationally recognised training were easily accessed. Data on other structured training, such as management training provided by external consultants and providers, were also accessible.

The significant amount of informal training such as product knowledge training and other informal on-the-job training was not recorded. These forms of training tended not to be recorded by most firms. In some instances, training data were scattered throughout the organisation. Thus at Stanley Motor Corporation data on the training carried out in the manufacturing operations—especially nationally recognised training—were available centrally. But much training was carried out for dealers through the sales section of the organisation and for suppliers through the contracting

division. These forms of training were largely unrecorded either by Stanley or by the dealerships and the suppliers. It would therefore be very difficult for Stanley to report on the full range of its training activities. This problem of decentralised data was exacerbated at Mavericks Bakeries. Here the central training organisation provided materials and manuals for the training that was carried out by their franchisees but they kept no central records. As very small businesses, the franchisees did not keep extensive records of the training they conducted. However, other organisations such as Exact Parts, a medium-sized manufacturing organisation, did keep extensive records of both the formal and informal on-the-job training provided. This was required to meet ISO quality standards, which specify that comprehensive training records are kept for all workers. However, Exact Parts kept little information on training expenditure.

This variation in the extent and integrity of training records and data became even more obvious when the case study organisations were asked to examine the questionnaire for the ABS Training Expenditure and Practices Survey 2001–02 (ABS 2003a). All of the organisations concerned indicated difficulty with accurately recording the information required by this survey. The following are the major elements required by the survey.

Part 1: Characteristics of employees

The case study organisations reported that they would be able to fill in this section. However, some felt that the categories of employees used by the survey did not adequately fit the employment structure of their organisations. For instance, the Ivybush Hospital, in common with many organisations in community services and health, does not use the permanent and non-permanent classification of employees. Thus, later questions that relate to the training of these different groups would be impossible to answer with accuracy, despite the relatively comprehensive data that the organisation keeps on training activities. Other organisations such as Exact Parts reported that training is carried out by a wide variety of shopfloor trainers whose main job would not be described as training. This is true in many organisations where training has been built into the jobs of many workers and is not specialised. Thus Question 7 which seeks information on those employees who are employed to train others does not fit well with the training practices in many organisations.

Part 2: Structured training of employees

The questions in this section which ask for the presence or absence of certain types of training posed few difficulties for respondents apart from categories of employee referred to above. However, the later questions (14 onwards) which ask for the percentage of employees who received structured training were more difficult. For nationally recognised training these questions are relatively straightforward, but for other forms of training often data are not available—especially in small and medium-sized organisations. The concept of structured training is also not one that many organisations use in their training arrangements. Where training data are diffuse in organisations, such as in Stanley, answering these questions would pose major difficulties.

Part 3: Unstructured training of employees

The term ‘unstructured training’ provides problems for most modern organisations. Most of the case study organisations found great difficulty in providing information on the percentage of employees who received unstructured training, as few, if any, records are kept of informal and incidental training at the workplace level.

Part 5: Other workers

Although most of the case study organisations could identify categories of employees who would constitute the other workers category in the survey, few records were kept concerning these employees in the workforce and the numbers who receive training posed difficulties, even for the largest organisations in the study.

Part 6: Expenditure on structured training

The first questions in this section, which ask for categorical answers to whether certain types of expenditure take place, posed few problems for respondents. However, the later questions, which ask for details of expenditure, posed significant difficulties for many of the case study organisations. For the smaller firms, data simply did not exist to answer these questions. For large organisations, data are often scattered across the organisation, as at Stanley and Large Retail, leading to inaccurate estimates. Most of the case study organisations felt that these quite critical sections of the questionnaire would pose major problems in terms of availability and accuracy of data at the organisational level.

Thus, it appears from the case studies, that the ability of questionnaires such as Training Expenditure and Practices to capture accurate and detailed information on employer training is somewhat limited. The survey questionnaire would need updating regularly to accord with modern training practices and it would have to be accepted that the information it produces is likely to be somewhat impressionistic.

To sum up:

- ✧ All of the employers in the case studies found several parts of the Employer Training Expenditure and Practices questionnaire difficult to answer. The questionnaire required data which in many instances they did not keep and the terminology used in the questions often did not match terms and categories used in business.
- ✧ Even larger employers who kept good training records found it difficult to produce the information required for the survey. In many cases data were not kept centrally but scattered widely in the organisation, resulting in major data logistics problems as a result of responding to the survey.
- ✧ Employers often ‘guesstimate’ data. This calls into question the reliability of the basic information collected by the Training Expenditure and Practices Survey. Whether approximate data are worth having is an issue we return to.

Factors driving training expenditure

A number of factors driving training investment by employers were identified in the interviews and case studies.

Improving firm capability

Employers stressed the role of training in developing the competitive capabilities of firms, reflecting the traditional reasons for training that arise from the human resource management literature. In many instances these forms of training would not rely on nationally recognised training but be more structured around informal and non-accredited training at the firm level. The retail organisations provided good examples of this approach to training. Large Retail, for instance, emphasised the role of training in developing the overall strategic capabilities of the firm. Thus training was aimed at improving efficiency, reducing costs and improving service levels across the organisation, not only at the checkout. Mavericks Bakeries also emphasised the connection between training and the business strategy of the organisation. In this organisation the training manager reported directly to the chief executive officer and sat on the senior management team—a very unusual arrangement and a testimony to the strategic importance that Mavericks attached to training.⁵

⁵ Three reasons for training stood out in the Training Expenditure and Practices Survey for community services and health compared with responses for all industries: professional status and industry standards, new technology and staff development. Compliance was not reported as exceptional in 2001–02, but there are indications that it has grown in relative importance as a driver of training.

Skills shortages

Shortages were important in driving more recent expenditure on apprentices in the traditional skilled trades. This was particularly true in the construction industry, where the demand for skills had led to calls for the development of new sub-trade apprenticeships in certain specialised trades or 'skills sets', which could be completed in shorter periods of time than the traditional four-year apprenticeship. These proposals had been part of the new arrangement for VET agreed at the recent Council of Australian Governments meeting. The Australian Industry Group, however, commented that the response to skills shortages needed to refocus on the training of existing workers rather than relying on attracting new entrants. Skills shortages were evident in all of the case study organisations. For example, the Ivybush hospital, although experiencing a relatively modest 12% labour turnover rate, was suffering from a severe shortage of nursing staff. As a result, the organisation was running with 50 equivalent full-time nursing staff fewer than were required. Skills shortages at this level had prompted the hospital to alter its work organisation practices and working time arrangements to accommodate far greater numbers of part-time and casual staff to cover the shortages. In the manufacturing sector, Stanley had a relatively low turnover rate of between 5 and 7% per annum. However, the organisation was working hard to maintain this low level of turnover. In the past, when turnover levels had been higher, the organisation had experienced considerable difficulty with the quality of its new recruits. The new training systems in Stanley were in part aimed at keeping good-quality employees and dealing with skills shortage problems through internal processes. This overlaps with the next driver.

Employer of choice and turnover

In a tight labour market, employers were trying to ensure the supply of skills and labour by providing training, usually nationally recognised training attached to a qualification, in order to attract and retain the best employees. This was particularly the case in the retail sector where labour turnover rates of more than 30% were not uncommon. In this case training was viewed as part of a broader human resource management strategy to develop the profile of the firm in a competitive market. As one interviewee from the retail sector put it:

They [young employees] were staying because they felt a perception of being valued and given an opportunity; they were leaving because they didn't feel valued and they didn't feel they were given the opportunity. It's just saying, if you advertise yourself as a star employer it means that you do this, this and this. You train, you reward, you recognise and you retain.

Mavericks Bakeries typified this approach. The franchised chain suffered from high levels of employee turnover. Many of the organisation's employees are young people, often school or university students, so high turnover is endemic to the operation. Thus the organisation deliberately creates an image which is designed to appeal to younger people in its advertising. Although the advertising is aimed at product purchase, its secondary aim is to influence young people to choose Mavericks as an employer.

Compliance with regulation

This revolves around the professional regulation of occupations as well as occupational health and safety standards and the use of different processes. For organisations in community services and health, vocational regulation has become a particularly strong driver of training in recent years, with mandated or strongly advised levels of training for a range of occupations (Community Services and Health Industry Skills Council 2006). It is also true in both manufacturing and construction. As one interviewee from the manufacturing sector put it:

In compliance there are an awful lot of obvious things such as OH&S and legislative requirements and a lot of hazardous chemicals and materials ... think there's a fair bit of enterprise focus on those sorts of things because if that doesn't happen then you don't run a business, so they're really critical.

Government funding

Government funding was viewed as a critical element in decisions to invest in training by many interviewees. Investments in nationally recognised training were heavily influenced by the availability of funding. However, many interviewees criticised current arrangements, which did not discriminate between different forms of training—trade apprenticeships against traineeships in other areas—and also excluded certain groups from funding, especially at the higher levels of skill, which is where many interviewees felt that firms were experiencing the most acute skills shortages.⁶ Because of the nature of the funding regimes for user choice and employer incentives, which in some cases made access to public funding somewhat arbitrary, some employers, particularly in the retail sector, were moving away from nationally recognised training and implementing more non-accredited training to meet the actual needs of the firms.

In the case studies, funding was not as strongly emphasised as in the interviews as a reason for training. Although most of the case study organisations employed apprentices and trainees and received state and Commonwealth subsidies, the costs of training these staff went far beyond the level of the subsidy. In some cases, such as Stanley, which is a registered training organisation, the organisation was not on the state eligibility list for user choice funding and thus received little state support for the extensive training programs it was implementing. In situations such as this, it is difficult to see that funding acts as a direct incentive for training. The funding is important in relieving the costs of training but does not constitute the primary driver for undertaking training in the first place.

Nationally recognised training

The case studies demonstrated the extent of the use of nationally recognised training—the take-up of which is connected to funding (Smith et al. 2005). All of the ten case study organisations used nationally recognised training. In some cases, such as MTC Construction in Queensland, this was related only to the employment of apprentices. However, in the other organisations—especially the larger organisations—nationally recognised training was being used for the training of existing workers and for management training. Nationally recognised training was seen as training that could guarantee a quality standard and by which organisations could judge the competence of individual workers. Despite misgivings over the level of funding, the case studies indicated that nationally recognised training had become their primary mode of training.

⁶ The extension of the availability of Commonwealth employer subsidies to some diploma and advanced diploma courses from the beginning of 2007 has partly addressed this problem (Department of Education, Science and Training 2006).

Conclusion

Overview

This project has been concerned with approaches to measuring and understanding employer training expenditure. It has accomplished this through a review of major ways of collecting expenditure data in the past, in Australia and overseas and also through interviews with experts and stakeholders, and through case studies with selected firms in four industries.

Review of the major surveys

The Australian Employer Training Expenditure and Practices Survey sought to provide an overall picture of employer expenditure on structured training, information on the reasons for training and not training, and some information about the characteristics of the firms, the types of training, the forms of provision, the people receiving it and the subsidies obtained. Overall, the information is at a fairly high degree of aggregation—useful for an understanding of the broad parameters of training, but unlikely to be useful directly for policy questions.

There are doubts held by the ABS, by users of the data and by employers over the quality of some of the expenditure data, as it is evident that many employers' records of training expenditure are inadequate. To validate and supplement such a survey it may be possible to make greater use of the Survey of Education and Training, which has much greater detail on the training that employees receive in Australian workplaces. The drawback to this at the moment is doubt about the scope of this survey, as it excludes training on the job and separates out courses of study for a qualification from non-accredited courses of training—a separation that may be difficult for individuals to report on with the growth of accredited courses undertaken largely on the job. The NCVET Survey of Employer Use and Views of the VET Sector provides additional information on employers' practices and it too has potential to be developed in conjunction with the other surveys. However, it would appear that the ABS is in a stronger position to obtain responses from employers and therefore best placed to undertake any future employer expenditure survey.

The English and European surveys are notable for their broader scope, including their continued attempts to estimate the wages and salaries paid to workers during training, which are clearly a major cost to employers providing training. This was dropped from the Training Expenditure and Practices Survey largely on grounds of the quality of the data likely to be provided and the burden on employers. The question arises and has been asked by the ABS: is it worth collecting data which is known to be of doubtful quality? Is some approximate information better than none? Our answer would be yes. A good deal of policy work by government involves consultations with a range of groups in the community and draws not on exact data but on the accumulated knowledge and judgement of experienced people. If we are gathering this type of information through surveys, we would hope that the method of collection was such that the data had reasonable consistency over time and across different sectors of employers.

National surveys can only provide part of the information, usually aggregated and average data. As the data presented in appendix (table A1, H to M) show, they can provide a picture of the relative

size of spending in a particular industry and the proportion of employers who indicate the importance of particular reasons for training.

Findings from the expert interviews and case studies

What came through in the interviews and case studies were the richness of the relationships and the variety of factors that could drive training. Understanding the factors affecting employer training expenditure is more likely to be obtained by research of this kind than by large-scale surveys. The dynamics of employer training are very complex. Organisations provide training to their workers for a variety of reasons: from the very simple—for example, regulatory compliance; to the quite complicated—such as developing organisational capabilities. These internal factors are also heavily influenced by external factors such as market turbulence and government policies on funding vocational education and training. The results of the interactions of these and other factors is a complex training system that is unique to each organisation.

The research questions

The research has brought us nearer to an understanding of the factors that influence training expenditure in Australian firms, but it has also shown that definitive answers to questions of the levels of expenditure will not be obtainable through case studies or expert interviews—and only approximately through major surveys.

1 *What expenditure on VET-related training is made by employers and what is the balance between various forms of training and groups of persons?*

The research, through our analysis of ABS data, including the Training Expenditure and Practices Survey, has shown the variation that exists between industry sectors. At the level of the individual employer, the case studies and the expert interviews confirmed that there is a very high level of variation in training expenditure between employers in the same sector. The variation is not easily explained through a single factor such as employer size. Often smaller employers will outspend, on a per capita basis, larger employers on training, although larger employers have advantages of resource economies. The case studies also illustrated the spread of nationally recognised training, especially amongst larger organisations, and the shifts that have occurred in training expenditure between different groups of employees as a result. The support from government funding led to an emphasis on the training of younger entrants, but the importance of training existing workers was stressed in many of the interviews and case studies. However, the lack of training records and data on training expenditure kept by the case study organisations made it difficult for the research team to assess the balance of expenditure on training between different groups in the workforce.

2 *How are these different forms of training funded by governments, employers and the individual?*

The research has shown how the different forms of training are funded to varying extents by the key players. In general, most of the organisations included as case studies received some form of government funding to underwrite their training programs. In some cases this was simply the normal incentives associated with apprenticeship and traineeship programs. However, there is little doubt from our research that the majority of the costs of training in organisations are borne by the employer. The research suggested, although there was little direct confirmation, that individual employees played a very minor role in the funding of the training they receive and that this is restricted only to certain types of formal training. The cost of informal and unaccredited training is borne solely by the employer. Employers were also candid in their assessment of the role of government funding in their decisions to train. The availability of funding may have a role in initially persuading senior executives to commit to extensive training programs, but funding plays little part in the ongoing commitment of organisations to the training of their employees. Again the lack of data on training expenditure in the case study

organisations tended to restrict the extent to which the research team was able to track the breakdown of funding and expenditure in individual organisations.

3. *What data do firms maintain on training activity and how can these activities be effectively measured?*

There was considerable variation in the training expenditure data kept by the case study organisations. In the case of smaller organisations, very few records were kept, and estimates of training expenditure by managers in these organisations were little more than informed guesses. In the larger organisations, more extensive records were kept of training activities and of expenditure on training. However, although larger organisations kept good records of the training carried out and the training received by individual staff members, records of expenditure on training were much more difficult to access. Often data on training expenditure were not kept by training departments but might be found in other areas of the organisation. Sometimes, expenditure data were scattered across a number of locations, especially in organisations with a number of divisions and therefore a number of different training ‘centres’. This made it very difficult even for the best organised firms to report on their training expenditure patterns with any degree of accuracy. This lack of data or lack of data accessibility was reflected in the fact that all of the case study organisations experienced significant problems with the questions in the Training Expenditure and Practices Survey questionnaire.

4. *Can the variation in expenditure and sources of funding across industries/firms be explained?*

The research probed the drivers of training at the organisational level. The key drivers from the case studies and from the expert interviews appear to be: coping with skills and labour shortages; improving the overall capability of organisations; complying with external regulations and legislative or licensing requirements; projecting an image as an employer of choice in a tightening labour market; and the availability of government funding. The salience of these factors varied from one organisation to another and between different industry sectors. In construction, shortages were a major factor. In retail, where turnover was high, becoming an employer of choice was important. Compliance with regulations or standards was important across all sectors, but especially so in community services and health. These factors and their interplay at the organisational and industry levels account for much of the variation in training expenditure observed in the research.

5. *What are the implications for policies that would encourage employers to increase their total investment in learning and development?*

The research has contributed some understanding of the drivers of training and hence of the factors that could support its expansion. It seems clear that employers respond to government assistance through employer incentives and support for the funding of training such as that provided under user choice. Provision of additional support and extension of the eligibility criteria would expand the numbers taken on by employers. Investment by employers in full, nationally recognised qualifications training has been limited by difficulties in some states of particular groups of workers not being supported under user choice arrangements; for example, people wanting to retrain when they already possess a qualification from their previous area of employment.

Employers respond to mandated changes in the minimum levels of training for employment in a particular occupation. This has been most obvious in the changes in community services and health. Related to this is the effect of quality assurance regimes of the firm, whether voluntarily entered, such as the ISO 9000, or mandated, such as the registration requirements for aged care facilities, which specify the necessity for trained staff.

The effects of other factors are more varied. For example, employers may react to shortages by providing training, but they have also been seeking shorter forms of training in skill sets rather than full qualifications, which some observers feel will limit workers’ opportunities and pay and perhaps their flexibility. Similarly competitive pressures may stimulate training provision, as argued by the Australian Industry Group, but they may also lead to the response from some construction firms—of seeking only partly trained employees. The provision of training to achieve recognition as an ‘employer of choice’ has been fostered and adopted in some

industries, but the extent to which it will drive training expenditure is far from clear. The concern to build firm capability affects different firms in various ways, although it can be expected to generally support an increase in training.

Looking forward

An improved understanding of the drivers of training and the links between training and the business situation of firms can be obtained by industry studies and by studies of particular firms. For example, the case studies and interviews highlighted the relationship between training and shortages, retention of workers and government subsidies, the importance of informal learning and the business plan more clearly than did the data in the Training Expenditure and Practices Survey.

However, the current study shows that there is little chance that case studies of firms and industries will yield coherent information on the overall level and distribution of expenditure on training. There is still a strong case for continuing with surveys that provide some insight into the level and distribution of employer training and which will not be obtained by studies of individual firms and industries. This includes the Employer Training Expenditure and Practices Survey and the Survey of Education and Training, both conducted by the ABS, and the Survey of Employer Use and Views of the VET Sector conducted by NCVER. Further developments in these surveys should aim to make them more complementary than in the past. The simpler but broader scope of the surveys used in England and Europe should be considered. The resulting data may be more approximate than past data collections, but are likely to be roughly 'fit for purpose' in giving an idea of changes in expenditures over time.

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Appendix: Statistics on employment and training

This appendix has been prepared to illustrate the range of data available from the surveys under consideration and also to provide context information for the industry analysis undertaken and described in the main body of the report.

Surveys in Australia and in other countries have found a link between the extent to which employers provide structured training and the size of the firm, the industry of which it is a part and the characteristics of its workers (Long 2003).

The data on the firms are mainly collected from surveys of employers and the data on the characteristics of workers are from household surveys. In the following list only the first four items draw substantially on the Employer Training Expenditure and Practices Survey and the remainder largely from the Survey of Education and Training.

- ✧ *Size of firm*: more large employers provide training than small employers and they spend more on training on average.
- ✧ *Industry*: a high proportion of employers provide structured training in government administration and defence, electricity, gas and water, and in education, and a low proportion in transport and storage, manufacturing, and retail trade. However, the ranking on expenditure as a proportion of wages and salaries is a little different, with the highest level in personal and other services, communication services, and finance and insurance; and lowest in retail trade, accommodation, cafes and restaurants, and cultural and recreational services.
- ✧ *Public sector*: there is a slightly greater incidence of training and notably more expenditure on training per employee than in the private sector.
- ✧ *Industry factors*: training provision is related to a range of factors that vary by industry. Factors ranking high were the extent to which the existing workforce was adequately trained, industry or professional standards, staff development, quality of goods and services, regulations and new technology. Factors ranking low were award or enterprise agreements, competition and skills shortages.
- ✧ *Occupation*: more training is provided for skilled occupations (management & administration; professional; associate professionals) than for less skilled occupations (intermediate production & transport; elementary clerical, sales & service; labourers & related workers).
- ✧ *Education*: more training is provided for those with higher levels of educational attainment.
- ✧ *Full- and part-time status*: the more hours worked per week, the more training received.
- ✧ *Permanence*: more training is provided to permanent employees than to casuals.
- ✧ *Age*: people 55 years and over receive less training than younger people.
- ✧ *Country of birth*: being born outside Australia and having a first language other than English leads to less training.
- ✧ *English facility*: difficulty with English language lowers the amount of training.
- ✧ *Disability*: having a disability increases the amount of training received.
- ✧ *Socioeconomic disadvantage of area*: living in a socioeconomically advantaged or disadvantaged area slightly increases the amount of training received.

- ✧ *Union membership*: slightly increases the amount of training received.
- ✧ *Sex of employee*: has little effect on the amount of training they receive.

Against this list of factors associated with employer provision of training, statistics have been prepared on the four industries considered in this study to provide a context for the case studies.

The four industries

Table A1 presents summary data on employment and training for the four industries and for all industries in Australia. It covers various aspects of employment by occupation and education level, labour mobility, size of firms, and engagement of the industries in education and training.

The industries studied in this project make up four of the top five in terms of total employment. Retail is the largest followed by manufacturing, with property and business services before health and community services and construction.

Employment by occupation and qualification

Average employment growth from 2001 to 2006 for all industries was 11%. Employment in construction grew 35% in the period, health and community services by 18%. Retail trade grew by 12%, but manufacturing experienced a decline of 3%.

The outlook for employment is regularly reviewed by the Department of Education, Employment and Workplace Relations (DEEWR). Employment is projected to continue to grow strongly in health and community services (3% per annum to 2001–12), more slowly in construction and retail trade (1.7% per annum) and to continue to decline in manufacturing (-0.6% per annum) (Department of Education, Employment and Workplace Relations 2007).

Females make up nearly 80% of those employed in health and community services, followed by about 50% in retail, a little over 25% in manufacturing but only 10% in construction.

Nearly 90% of manufacturing workers are full-time, 85% of construction workers, a little under 60% for health and community services and a little over 50% for retail.

Workers in health and community services tend to be older than average and so to a lesser extent are workers in manufacturing. Retail trade has nearly 40% of its workers aged 24 years or under, more than twice the average for all industries.

Over 40% of the workers in health and community services are in professional occupations and over 30% in intermediate-level clerical and service occupations. Nearly half the workers in construction are tradespersons with labourers the next largest group. A quarter of manufacturing workers are tradespersons, with intermediate-level workers and labourers the next most important groups. The largest occupation group in retail trade is at the elementary sales level, although the industry employs substantial numbers of associate professionals and tradespersons.

Construction and manufacturing employ, in total, well over 50% of all tradespersons in Australia. Health and community services employ a fifth of all professionals.

These occupational patterns are reflected in the qualification levels across the industries. Nearly 40% of health and community services workers have degrees or higher, 15% diplomas or advanced diplomas and nearly the same percentage have level III/IV qualifications. Only a quarter have no qualification. In construction, the percentage of people with qualifications is a little less than might be expected from the occupational mix, perhaps reflecting that some tradespersons are working with recognition of their skills but without formal qualifications. In manufacturing, the proportion of persons with certificates III/IV exactly matches the proportion who are tradespersons. Manufacturing has 20% of its workers with diploma or higher qualifications, compared with just

over 10% for construction, although manufacturing has a higher proportion without qualifications than construction. Retail trade has over 60% of its workforce without qualifications.

Mobility

Health and community services, manufacturing and construction had relatively stable employment in the year of the last survey, with about 84% of those employed in 2005 in the same employment in 2006. Retail trade had the highest turnover, with only 76% in the same job. However, the rates vary considerably for different occupations within industries and by characteristics of the employees such as age and sex and of the job such as full- and part-time status.

Size of firm and wages paid

While the largest employment is in retail, the total wages paid is much higher in the manufacturing industry, reflecting the full-time and more skilled workforce of the sector. Over 90% of businesses in manufacturing are small, but the few large businesses (with 200 or more employees) account for 50% of wages paid. The size of firms by employment groups is similar for retail, but in this case the large firms are responsible for less than 40% of all wages. In construction 70% of businesses are non-employing. The private part of the health and community services industry is also typified by small and non-employing businesses. Large businesses account for nearly 40% of wages.

Training engagement and expenditure

Of the industries of concern in this project, nearly 60% of employers in health and community services provided structured training in 2001–02, over 40% of those in construction and about a third of those in manufacturing and retail industries. When attention is shifted to unstructured training, the differences across sectors are much narrower, with over 80% in all but construction.

The estimates of employer training expenditure for 2001–02 indicate that each of the four industries of concern have average spending below the average for all industries. Health and community services expenditures at 1.2% of gross wages and salaries were below the average for all industries of 1.3%. Manufacturing expenditure per employee was about the national average, but since wages and salaries for manufacturing employees (mainly full-time and male) are higher than average, the expenditure was only 1.1% of gross wages and salaries. Retail and construction have outlays of 0.6%, less than half the national average.

Subsidies, largely from government, provide for about 20% of the gross expenditures on training reported for health and community services, construction and retail trade, but for only about 10% for manufacturing, similar to the average for all industries.

Net training expenditure per employee was \$400 in manufacturing and a little below that in health and community services, but near \$200 in construction and \$127 in retail. The expenditure per employee for those employers that provide training is higher, but the ranking appears to be much the same, although details are not available for health and community services.

The Training Expenditure and Practices Survey probed reasons for training. Notably, above-average responses were made for construction for legislative, regulatory and licensing factors. For health and community services high responses were given for professional status and industry standards, new technology and staff development. In manufacturing a flexible and responsive workforce was specially noted. Overall, a major factor among those firms not providing training was the belief that staff were adequately trained.

The distribution of training and the forms of training are best indicated by the data from the Survey of Education and Training. The provision of training to particular groups tended to reflect the composition of the workforce noted earlier, but also with the proviso that less was provided for the part-time, casual, lesser educated, lower skilled. The relatively longer courses provided in manufacturing can be noted, which helps explain the higher rate of expenditure in that industry

compared with retail and construction, where the incidence of training appears to be at the same or higher level as manufacturing.

Training hours per employee trained have declined across all industries by nearly 30% in the years 1997 to 2005 but there has been an increase in the proportion who are trained, so that hours of training in total only declined 7%. Overall, there was a considerable growth in the amount of training hours delivered in construction—where employment had grown very rapidly—and a substantial fall in manufacturing, where employment had been falling.

The Training Expenditure and Practices Survey reported the proportion of employers engaging apprentices and trainees. For all industries this was 13% in 2001–02 but much higher in construction, retail and manufacturing. It was a little below average in health and community services.

The NCVER Survey of Employer Use and Views of the VET Sector shows a variation across these industries in engagement with the VET system and in the provision of unaccredited training. It can be noted that the proportion of employers reported as employing apprentices and trainees is more than twice that reported in the ABS Employer Training Expenditure and Practices Survey and the level of provision of structured unaccredited training is on its own higher than the level reported for all structured training by the ABS. The time difference of the surveys can account for a small part of these differences. The lower response rate in the NCVER survey may also be a factor.

Table A1 Key data on employment and training by selected industries

A Employment by industry by sex and full and part-time status, May 2007, and employment growth from 2001						
		Manufacturing	Construction	Retail trade	Health and community services	All industries
Employed full-time males	%	70	81	33	16	47
Employed part-time males	%	5	8	14	4	8
Employed full-time females	%	18	5	21	43	5
Employed part-time females	%	8	6	33	37	20
Total	%	100	100	100	100	100
Total ('000)		1087	937	1486	1098	10 452
Growth 2001–06	%	-3%	36%	12%	20%	12%
Growth 2006–07	%	1%	6%	1%	1%	3%

Source: ABS (2001–06).

B Employment by age and industry, Australia, May 2006						
		Manufacturing	Construction	Retail trade	Health and community services	All industries
15–24	%	15	17	39	11	18
25–34	%	22	25	19	19	22
35–44	%	27	25	18	24	24
45–54	%	22	20	14	29	22
55–64	%	13	11	9	16	12
65 and over	%	2	2	1	2	2
Total	%	100	100	100	100	100

Source: ABS (2007).

Table A1 Key data on employment and training by selected industries (continued)

C Percentage employed by occupation in each industry, 2006					
	Manufacturing	Construction	Retail trade	Health and community services	All industries
Managers and administrators	12	8	3	4	8
Professionals	10	3	3	38	20
Associate professionals	5	7	14	12	12
Tradespersons and related	27	49	12	2	13
Advanced clerical and service	2	5	2	2	4
Intermediate clerical, sales and service	10	4	10	33	17
Intermediate production and transport	16	11	8	1	8
Elementary clerical, sales and service	2	1	42	2	10
Labourers and related	17	12	7	7	8
Total	100	100	100	100	100

Source: ABS (2007).

D Percentage of each occupation employed by industry, 2006						
	Other industries	Manufacturing	Construction	Retail trade	Health and community services	Total
Managers and administrators	68	15	8	5	5	100
Professionals	71	5	1	2	21	100
Associate professionals	63	5	5	17	11	100
Tradespersons and related workers	29	22	34	14	2	100
Advanced clerical and service workers	71	5	11	9	5	100
Intermediate clerical, sales and service workers	62	6	2	9	21	100
Intermediate production and transport workers	52	20	12	15	1	100
Elementary clerical, sales and service workers	31	2	1	65	2	100
Labourers and related workers	47	21	13	11	8	100

Source: ABS (2007).

E Employed persons, non-school qualification by industry, Australia 2005					
	Manufacturing	Construction	Retail trade	Health and community services	All industries
Bachelor degree and higher	13	7	8	38	23
Advanced diploma/diploma	7	5	5	15	9
Cert.III/IV	25	38	15	14	17
Cert.I/II and cert. not further defined	8	8	8	7	8
Without non-school qualification	46	42	63	24	42
Total	100	100	100	100	100

Source: ABS (2006c).

Table A1 Key data on employment and training by selected industries (continued)

F Persons working at February 2005, job mobility by industry, February 2006

		<i>Industry in 2005</i>					
		Manufacturing	Construction	Retail trade	Health and community services	All industries	
Working at February 2006	Less than one year in present job	3	5	4	5	4	
	Same industry						
	Changed industry	8	7	11	5	8	
	One year or more in current job	83	84	76	84	82	
Not working at February 2006		6	4	9	6	6	
Total employed February 2005		100	100	100	100	100	

Source: ABS (2006d).

G Size of firms and wages and salaries paid, Australia 2004–05

	Manufacturing		Construction		Retail trade		Health and community services (private only)	
	<i>Operating businesses</i>	<i>Wages and salaries paid \$b</i>	<i>Operating businesses</i>	<i>Wages and salaries paid \$b</i>	<i>Operating businesses</i>	<i>Wages and salaries paid \$b</i>	<i>Operating businesses</i>	<i>Wages and salaries paid \$b</i>
	'000		'000		'000		'000	
Small	54.2	8	113.1	11	120.1	12	50.4	6
Medium	7.0	14	2.3	5	5.1	7	3.6	5
Large	0.6	25	0.1	5	0.3	12	0.4	8
Non-employing	68.7	1	268.0	0	117.5	1	68.9	0

Note: Large businesses, employment of 200 or more persons; medium businesses, employment of 20 to fewer than 200 persons; small businesses, employment of fewer than 20 persons; and non-employing businesses

Source: ABS (2006e).

H Provision of training, all employers, Australia 2001–02

		Manufacturing	Construction	Retail trade	Health and community services	All industries
Provided structured training	%	33.6	42.0	34.1	57.9	41.0
Provided unstructured training	%	83.2	73.4	84.5	85.2	79.2
Provided structured and unstructured training	%	33.6	39.6	32.1	57.9	39.1
Total provided training	%	83.3	75.7	86.4	85.2	81.1

Source: ABS (2003a).

Table A1 Key data on employment and training by selected industries (continued)

		I Employer expenditure on structured training, Australia 2001–02				
All employers		Manufacturing	Construction	Retail trade	Health and community services	All industries
Gross training expenditure	\$m	429	120	194	437	4018
Net training expenditure	\$m	395	93	151	355	3653
Net as proportion of gross	%	92	78	78	81	91
Net expenditure per employee	\$	434	208	127	383	458
Net expenditure as % gross wages and salaries	%	1.1	0.6	0.6	1.2	1.3
All employers	'000	61	100	111	50	672
All employers that provided structured training	Net expenditure per employee \$	575	309	188	na	579
	Net expenditure % gross wages & salaries	1.3	0.8	0.8	na	1.5
	Employers '000	20	42	38	29	276

Source: ABS (2003a).

		J Reasons why structured training was provided to employees by industry, Australia 2001–02				
		Manufacturing	Construction	Retail trade	Health and community services	All industries
Legislative, regulatory or licensing	%	31	56	31	34	38
Professional status/ industry standards	%	47	44	45	73	55
Improve quality	%	51	32	61	62	53
New technology	%	33	19	32	62	36
Flexible responsive workforce	%	50	22	48	41	35
Staff development	%	47	36	43	72	54
Other	%	43	14	29	17	23
Total	%	100	100	100	100	100
Number of employers	'000s	20	42	38	29	276

Note: Applies to employers providing structured training; In some case standard errors are high.

Source: ABS (2003a, table 12).

Table A1 Key data on employment and training by selected industries (continued)

K Work-related training courses completed in the last 12 months by employees: Industry by training and employment characteristics, aged 15–69 years, Australia, 2005					
	Manufacturing	Construction	Retail trade	Health and community services	All industries
	%	%	%	%	%
Participant worked full-time	95	97	55	54	76
Participant had leave entitlements	94	89	65	88	88
Course delivered totally in work time	87	86	75	72	79
<i>Delivery:</i>					
Delivered by existing staff member	38	19	53	40	41
Delivered by a consultant	24	21	17	21	22
Course was organised and delivered externally	38	60	30	39	37
<i>Participants' finance:</i>					
Did not receive financial support	9	14	11	13	11
Participant Incurred costs	4	6	4	9	6
<i>Time spent on training course:</i>					
1–9 hours	61	68	76	74	67
10–19 hours	19	16	14	15	17
20–29 hours	8	7	5	5	7
30 hours or more	12	9	6	6	10

Note: Excludes owner–managers of incorporated enterprises.

Source: ABS (2006a).

L Training hours in work-related training courses completed in last 12 months by employees aged 15–64 years, Australia 2005						
		Manufacturing	Construction	Retail trade	Health and community services	All industries
Mean training hours no.	1997	23.9	23.5	19.5	17.7	20.6
	2001	20.4	15.4	14.2	13.8	17.4
	2005	14.7	14.0	11.2	11.6	14.7
Change 1997 to 2005 %		-38.5	-40.4	-42.6	-34.5	-28.6
Total training hours '000	1997	17 697	3553	12 987	19 149	148 616
	2001	14 735	3570	12 559	16 955	143 450
	2005	10 853	5141	11 176	17 205	138 988
Change 1997 to 2005 %		-38.7	44.7	-13.9	-10.2	-6.5

Note: Excludes owner–managers of incorporated enterprises.

Source: ABS (2006a).

M Percentage of employers who employed apprentices and trainees, Australia 2001–02					
	Manufacturing	Construction	Retail trade	Health and community services	All industries
All employers	16.3	21.6	17.6	10.9	12.9

Source: ABS (2003a).

Table A1 Key data on employment and training by selected industries (continued)

N Percentage of employers engaging with the VET system and other training, last 12 months 2005

		Manufacturing	Construction	Retail trade	Health and community services	All industries
Vocational quals as job requirement	%	42	33	28	47	35
Apprentices or trainees	%	35	46	35	22	28
Nationally recognised (not apprent/trainee)	%	16	30	16	23	24
Unaccredited training	%	51	50	50	59	53
Informal training	%	76	69	70	72	72
No training	%	13	8	13	11	13

Source: NCVET (2006).

Support document details

Additional information relating to this research is available in *Approaches to measuring and understanding employer training expenditure—Support document*. It can be accessed from NCVER's website <<http://www.ncver.edu.au/publications/2016.html>> and contains information relating to the:

- ✧ format of the interviews and case studies including the key questions raised
- ✧ reports on the individual case studies.



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