CASUALISATION AND OUTSOURCING:

TRENDS AND IMPLICATIONS FOR WORK-RELATED TRAINING

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Objectives

Given that the use of both casual employment and outsourced labour have been increasing in recent years, important questions arise concerning access to, and participation in, structured training. Very little attention has been paid to such questions in the existing literature.

This study seeks to fill this gap, at least partly, by first, describing current and past levels of casualisation and outsourcing within the Australian workforce, and second, making use of existing data sets to identify how casualisation and outsourcing are related to training. To fulfil these aims, extensive use is made of a number of different data sources, including the two rounds of the Australian Workplace Industrial Relations Survey (AWIRS) and various Australian Bureau of Statistics (ABS) surveys of training and education experience.

It should be noted, however, that while analysing these data sets advances our knowledge of the relationship between training and employment arrangements, the data sets were not designed to address this issue and thus are not ideal for our purposes. For this reason, even after examining the existing data, many questions remain unanswered.

Extent of casualisation and outsourcing

ABS evidence indicates that there has been strong growth in casual employment, with the share of casual employment (as defined by the absence of leave entitlements) in total employment increasing by 11 percentage points between 1984 and 1998. Thus, by August 1998, over a quarter of all wage and salary earners were measured as casual employees. Further, over the past decade, the rate of growth of casual employment has been more rapid among men than women.

Although ABS data on the share of casual employment are cited most frequently, alternative data sources exist, and these consistently indicate that the extent of casual employment is lower than that suggested by the ABS estimates. Differences in estimates are partly explained by factors such as sample restrictions, response bias, and the treatment of owner managers.

Regardless of the data source considered, it is clear that casual employees differ from permanent workers in many ways. For instance, casual workers are more likely to be employed on a part-time basis, be female, be young, have shorter average job tenure, and work in relatively low-skilled occupations.

Further, the incidence of casual employment varies with a number of workplace and firm characteristics. Casual employment is more common in workplaces that are small, Australian-owned, non-unionised, new (i.e. in existence less than five years) and in the private sector. In addition, workplaces where work is seasonal and markets appear to be more competitive are more likely to have a greater proportion of casual employees. In addition, there are obvious differences across industries in the extent of employment of casual labour, with the casual employment share especially high in accommodation, cafes and restaurants, cultural and recreational services, and retail trade.

In terms of outsourcing, relatively little data are available on the extent of outsourcing in the Australian workforce. Furthermore, the data that are available suggest estimates of outsourced labour ranging from a low of 4.2 per cent of workers to a high of 10.3 per cent. This wide range of estimates is not surprising given the varying definitions and samples used.

Trend information suggests sizeable growth in the use of outsourced labour (at least over the period of 1989 to 1995). The growth in the use of outsourced workers seems to be concentrated among large firms, firms that operate on a commercial basis, more newly established firms, highly unionised workplaces, and firms in certain industries (such as communication services, government administration, and transport and storage).

Casual employment and training

According to economic theory, training investments are dependent on the length of time over which these investments can be recovered. Because casual workers are less likely to remain with the firm as long as permanent workers, employers can be expected to be less willing to provide casual employees with training opportunities. At the same time, casual employees themselves may be less willing to participate in training, particularly if the training is not easily transferable across firms and jobs.

Results from data analyses tend to support these arguments, as permanent workers were found to be more than twice as likely as casual employees to have participated in in-house training during the previous year. Permanent workers are also more likely to have participated in external training. However, when a distinction is made between external training undertaken with and without employer support, casual employees stand out as being the more likely of the two to have participated in external training without employer support, and this disparity has grown over the years.

Even after controlling for a wide range of factors – including characteristics of the workers and their job – analyses reveal that permanent workers were one and a half times more likely than casual workers to have received employer-provided training within the previous year. This result indicates that the difference in access to training among casual and permanent workers cannot simply be explained by differences in the characteristics of the workers or their jobs.

Among those who had participated in training, annual hours of in-house training were greater among permanent than casual employees. This difference, however, can be largely explained by the fewer hours that casual employees typically work each week. In contrast, casual employees actually spent more hours than permanent workers in external training, although we suspect that these additional hours of training all occurred in the worker's own time and at his or her own expense.

In terms of attitudes toward training received, among those who had participated in employer-provided training, permanent workers were actually less likely than casual employees to be satisfied with the training they received. Such a finding, however, may simply be symptomatic of differences in expectations among permanent and casual employees about what their jobs should offer them.

Reasons for not participating in training were also examined. The results indicate that the motivation for casual workers to undertake training differs depending on the type of training under consideration. That is, while casual workers were more likely than permanent workers to say they had not participated in employer-supported training because they had no need for such training, they were no more or less likely to say they did not require training that was not employer-supported.

Outsourcing and training

Existing research indicates that contractors are often used by firms to access specialised skills not available in-house. However, despite the importance of skills in the contractor workforce, available research also suggests that labour hire firms do not see it as their responsibility to provide training to contractors.

Despite concern that firms may substitute the use of contractors for in-house training activities, no evidence was found to indicate that the use of contractors was related to a decline in the level of training activity for employees. Indeed, if anything, analyses of various data sources indicate that employees in firms which made greater use of outsourced labour were more likely to have participated in training. The strength of this association, however, was (in statistical terms) quite weak.

Conclusions

Casual employees are much less likely than permanent employees to participate in formal training activities, and this difference is not merely due to differences in factors such as hours worked, type of job held or workplace characteristics. However, this does not necessarily lead to the conclusion that casuals are at a disadvantage in the training process, and that they are falling behind permanent workers in terms of accessing skills. Rather, a number of the results point to a 'substitution' effect, in which low levels of participation in employer-supported training by casuals are offset (in part at least) by relatively high levels of participation in external training that was completed in the worker's own time.

The question that could not be answered with the available data, however, is whether the substitution of training types was by choice or because of the lack of the option of firm-provided training. Nonetheless, results from multi-variate analyses do lead to the conclusion that motivational factors of both the employees themselves and employers towards participating in, and offering, training are the key to gaining a better understanding of why casual workers are less likely to participate in employer-provided training.

Existing data on the relationship between job-related training and both casual employment and outsourcing are far from ideal. Additional data is needed to further explore issues such as: how training expectations differ between casual and permanent workers, the role of employer and employee attitudes in determining training outcomes, consequences of increased outsourcing for employee training, and how the training requirements of the outsourced workforce are being met.

1 Introduction

THERE HAVE BEEN enormous changes in the structure of the Australian labour market during the last quarter of the century. New technologies, rising competitive pressures and increased diversity of markets have all interacted to increase the importance of business flexibility (Hawke & Wooden 1998). This, in turn, has had enormous ramifications for firms' employment policies, and is reflected in trends such as the increasing casualisation of work and the greater use of outsourcing.

The increasing casualisation of the workforce, in particular, has been widely touted as one of the most significant changes to the labour market over the last decade or so (e.g. Burgess & Campbell 1998; Campbell 1996; Campbell & Burgess 1993; Norris 1993; Norris & Wooden 1996). Far less is known about outsourcing and its impact on the Australian labour market, although in recent years a number of survey-based studies have been conducted (Benson & Ieronimo 1996; Brosnan & Walsh 1998; VandenHeuvel & Wooden 1995; Wooden & VandenHeuvel 1996a, 1996b). These studies all suggest that the use of contractors by Australian businesses is relatively common, although it still only accounts for a small minority of the workforce. Further, a number of these studies also suggest that the incidence of outsourcing has been rising in recent years (although the evidence here is far from conclusive).

Given that both casual employment and outsourcing have been increasing in recent years, important questions arise concerning worker access to, and participation in, structured training. According to models of training decisions based on the human capital framework, training investments will be dependent on the length of time over which those investments can be recouped. Persons employed on a casual basis typically have relatively short job tenure. As a result, employers will be reluctant to invest in training casual workers. At the same time, these workers will have little incentive to invest time into gaining skills which are not easily transferable across firms and jobs. Thus the development of a cohort of workers who are increasingly casualised and denied access to full-time jobs could work against policy initiatives designed to raise the overall skill level of the workforce. To date, the only research that has explicitly addressed this linkage between casual employment and training in any depth is that reported in Wooden (1996a) and Curtain (1996).

Very differently, outsourcing raises the question of who is responsible for training. Indeed, outsourcing may represent an attempt by firms to avoid the cost and responsibilities associated with providing training to employees. In many instances, such as where the skills required are not firm-specific or are specific to tasks that are only an irregular feature of business activity, reliance on outsourced labour is rational behaviour. In other instances, however, the ultimate impact may be a reduced incentive for both firms and workers alike to participate in training. Whether this is actually the case is unknown – to date, there has been no detailed empirical analysis of the link between outsourcing and training.

Study objectives

Despite the significance of these research gaps, the brief for this report is a modest one. Essentially the main objectives are twofold. These are first, to provide an up-to-date analysis of trends in casualisation and outsourcing, and second, to analyse existing data sets with a view to identifying how casualisation and outsourcing are related to access to training. This report should thus be seen as a scene-setting document for new research which will inevitably be required if our understanding of the linkages between changing employment

arrangements and the incidence of, and impact on, job-related training is to improve.

The report focusses on five specific issues. These are as follows:

- the significance of both casualisation and outsourcing within the Australian workforce
- characteristics of firms which are intensive users of casual and outsourced labour
- trends in the growth of casualisation and outsourcing
- the relationship between training effort and both casualisation and outsourcing
- perceived barriers to greater participation of casual employees informal training

To meet the objectives of this study, extensive use is made of three different data sources. These are:

- the two rounds (1989/90 and 1995) of the Australian Workplace Industrial Relations Survey (AWIRS)
- the surveys of training and education experience conducted by the Australian Bureau of Statistics (ABS) in 1989, 1993 and 1997
- the 1994 National Institute of Labour Studies (NILS) survey of employer use of contractors

Additional information on these data sources is provided in appendix A.

Some use is also made of data from the monthly ABS labour force survey to document trends in the incidence of casual employment.

Definitions

At the outset it is important to have a good understanding of the key terms being discussed in this study – namely, casual employment, outsourcing (and the related concept of contractors) and training.

Casual employment

As Brooks (1985, p.166) notes, under common law 'each engagement of a casual worker constitutes a separate contract of employment'. Consequently, in theory, a casual worker can be used on a needs basis with termination possible (and likely) at any time and without any requirement for advance notice. Indeed, as Burgess and Campbell (1998, p.36) observe, the concept of termination does not really apply to casual employees; employers can simply exercise their option not to re-engage them. In addition, casual employees may be confronted with highly variable working hours arrangements, both in terms of their length and their timing. This is reinforced in some awards – with irregular hours being a requirement for casual employment. Thus, on this definition, casual employment is, at least from the viewpoint of the employer, an extremely flexible arrangement, in which employment is relatively easy to terminate and hours can be easily varied, both in terms of their amount and their timing.

In contrast, a worker hired on a 'permanent', or ongoing, basis would enter the employment relationship expecting the employment relationship to continue indefinitely, and should termination be required, would expect a reasonable period of notice of that impending termination. Indeed, many awards and enterprise agreements explicitly contain termination provisions for permanent employees, while excluding or ignoring similar provisions for casual workers. Further, the conditions of employment specified for permanent employees will typically include regular and well defined hours of work.

It is, however, not easy to operationalise these definitions of casual and permanent employment. Very few jobs are in fact permanent, and many so-called casual jobs appear to provide regular hours of work each week (Romeyn 1992, pp. 15–22). Indeed, and as noted by

Stewart (1992, p. 219), many awards provide employers considerable freedom to simply designate employees as casuals. Consequently, so-called 'regular casuals' (surely an oxymoron) may be totally consistent with provisions in some awards. Furthermore, following the passage of the Industrial Relations Reform Act 1993, it became possible for casual workers (engaged on a regular basis over a period of six months or longer) to receive due process for unfair dismissal, suggesting employment security is not as uncertain as usually assumed.

According to Brooks (1985, p. 167), although, viewing casual employment as a series of short-term contracts precludes the casual employee from any statutory benefits available to other employees. Consequently, casual employees, irrespective of their job tenure, should be identifiable by their lack of entitlement to various employment benefits. This has been the approach taken by the ABS, which defines casual employees as wage and salary earners without entitlements to either paid annual leave or paid sick leave. This definition has been widely adopted by other agencies and researchers, and is used in the analysis reported here.

It should be noted, however, that even this definition is not without difficulties. As both Brooks (1985) and Sloan, Carson and Doube (1992, p.8) have pointed out, industrial legislation does not necessarily preclude casual employees from receiving both paid annual holidays and paid sick leave. Second, there may be other non-casual employees who do not receive paid leave entitlements. An obvious example here is owner managers, many of whom are classified by the ABS as employees (of their own businesses).

Finally, it is worth noting that as might be expected given the imprecise definition of casual employment in many awards, many so-called casual workers in Australia work quite regular hours in what are seemingly quite long-lasting jobs. In a survey of part-time and casual employment in New South Wales conducted in October 1997, the ABS reported that of all casual jobs, only 18 per cent involved both part-time hours and the provision of an irregular income (ABS 1998b). It is thus not correct to assume that casual employment is necessarily synonymous with precarious employment.

Outsourcing and contractors

Outsourcing, or contracting out, refers to the business practice of choosing to have goods or services sourced externally rather than produced in-house. There are for example, many services required by a firm but which may be cheaper to source outside the firm. Obvious examples here are cleaning services, accounting services, information technology support, and building construction and maintenance. The persons who provide these outsourced services are not employees of the firm requiring the services. Instead, they are either contractors or employees of contractors.

In common law, the key difference between contractors and employees is that the former involves contracts for service, whereas the latter involves contracts of service. Since contractors are not direct employees of the hiring organisation, the hiring organisation does not have the same range of obligations with respect to contractors that it does with respect to its own employees. Of course, in many cases these obligations are merely shifted to another employer. Contractors may well employ their own workers and hence a shift towards greater use of outsourcing may not necessarily be reflected in a growth in self-employment. Employment agencies, for example, typically provide labour services on a contract basis, but in many (if not most) cases the persons who perform these services are

employees of the agency. The contractor workforce is thus conceptually quite broad, including both self-employed contractors and employees of organisations that have been contracted to provide labour services (the latter including persons paid by a labour hire organisation or employment agency).

It is also important to realise that in many cases, contractors (and the persons employed by those contractors) may not be readily distinguishable from the hiring organisation's own workforce. Our own survey-based research, for example, suggests that among the population of self-employed contractors, almost 40 per cent are in fact highly dependent on the hiring organisation for their living and more often than not, describe themselves as employees rather than as self-employed (VandenHeuvel & Wooden 1995).

Training

At the most basic level, training can be thought of as any activity which assists individuals to develop, learn and maintain skills related to job performance and competency. This definition thus includes a wide variety of activities ranging from basic schooling to learning on-the-job. The breadth of this definition, however, raises numerous difficulties with respect to the measurement of training. The Organisation for Economic Co-operation and Development (OECD) (1991, pp.141–145), for example, observes that unstructured training typically occurs jointly with production and as such, is difficult to identify. Consequently, most training statistics attempt to distinguish between different types of training, some of which may be easier to measure than others. The household survey data collected by the ABS in 1989, 1993 and 1997 (see ABS 1990, 1994, 1998a), for example, distinguish between formal structured types of training and between informal unstructured activities. Within the former, a distinction between training delivered within the firm (in-house training) and that delivered by other organisations outside the firm (external training) is also made. Furthermore, the data also distinguish between external training programs undertaken with employer support – in the form of fees, paid leave and the like – and that undertaken without any visible signs of employer support.

As noted above, general education will also perform a training function. Nevertheless, it is also true that some education is undertaken purely for its consumption benefits and may well confer little in the way of job-relevant skills. In practice, making such distinctions in survey data are nigh impossible. In this study, therefore, care will be taken to ensure that educational study is distinguished from other types of training.

2 Incidence and trends

Casual employment

ABS evidence

As documented in table 1, ABS data suggest that the share of casual employment in total employment has been growing rapidly during the 1980s and 1990s. According to these data, casual employees represented well over a quarter of all wage and salary earners in August 1998. By comparison, only 15.8 per cent of employed wage and salary earners met the definition of casual employment in 1984, the first year for which the necessary data are available. Furthermore, while male employees are less likely than their female counterparts to have been employed on a casual basis in each of the years considered, the data suggest a more rapid rate of growth in casual employment among men.

Table 1: Casual employment (in main job) by sex, 1984–1998 (% of employees): ABS estimates

Year[a]	Males	Females	Persons
1984[b]	9.4	25.7	15.8
1985[b]	9.4	28.2	16.1
1986[b]	10.7	26.7	17.2
1987[b]	11.5	27.9	18.3
1988[b]	12.0	28.4	18.9
1989	13.1	29.3	20.0
1990[c]	12.7	28.2	19.4
1991[a]	13.5	29.0	20.3
1992	15.6	30.9	22.3
1993	16.4	30.6	22.7
1994	18.1	30.8	23.7
1995	18.5	30.8	24.0
1996	21.2	32.0	26.1
1997	20.9	31.7	25.8
1998	22.6	32.0	26.9

Notes: a The data were collected in August of each year except for 1991, when the data were collected in July.

b The published data for 1984 to 1988 do not enable the calculation of separate estimates for males and females. The figures reported for these years are 'guesstimates' by Dawkins and Norris (1990) and should be treated with caution.

c The 1990 survey excluded persons aged 70 years and over; hence estimates for 1990 are not strictly comparable with those for other years.

Sources: 1984–1988: *Dawkins and Norris (1990)*

1988–1992: *ABS, Employment benefits, Australia, cat.no.6334.0*

1993–1998: *ABS, Weekly earnings of employees (distribution),Australia, ABS, cat.no.6310.0; ABS, Labour force, Australia, December 1995, cat.no.6203.0; ABS, Trade union members, Australia, August 1996, cat.no.6325.0*

Further information on the changing composition of wage and salary earner employment is provided in table 2. This table cross-classifies employment status by hours of work and reveals that the only category that has declined in size over time is full-time permanent employment. While still accounting for the majority of jobs, its share in employment—63 per cent—is well down from the 78 per cent share recorded in 1984. Moreover, if we were to go back further in time, an even larger fall would almost certainly become apparent. Indeed, if current trends are extrapolated backwards, the casual share in employment in 1971 might have been as low as 3 per cent. However, given that part-time jobs represented around 10 per cent of all wage and salary earner jobs at the time, and given the close relationship between part-time jobs and casual jobs (about two-thirds of part-time jobs are casual jobs and a slightly larger proportion of casual jobs are part-time jobs), it seems likely that the share of casual jobs in total employment would have been higher—perhaps around 7 per cent. Our best guess, therefore, is that the share of full-time permanent jobs in total wage and salary earner employment in 1971 was around 89 per cent.

Table 2: The changing composition of employment (% of employees)

Year[a]	Permanent		Casual	
	Full-time	Part-time	Full-time	Part-time
1971	89.0	4.0	1.5	5.5
1984	78.2	6.0	4.7	11.1
1997	64.8	9.5	7.7	18.0
1998	63.4	9.7	8.5	18.3

Notes: Employment characteristics are based on main job.
a The data were collected in August of each year.
Sources: 1971: *Authors' guesstimates*
1984: *Unpublished data provided by ABS*
1997: *ABS, Weekly earnings of employees(distribution), Australia, cat.no.6310.0*

Alternative estimates of casual employment

While ABS data are the most frequently cited source of information on the extent of casual employment, a number of alternative data sources exist, and these data sources consistently indicate smaller casual employment shares than the ABS data. As shown in table 3, data collected during the 1995 AWIRS, for example, lead to estimates of the casual employment share that range from just 12.3 per cent to 16.6 per cent, depending on whether the information is sourced from employees or management. By comparison, ABS data for August 1995 suggest a casual employment share of 24.0 per cent (as shown in table 1).

Table 3: Casual employment as a per cent of total employment (at workplaces with 20 or more employees) by sex: 1995 AWIRS

Sample	Men	Women	Persons
Workplaces	14.8	19.4	16.6
Employees	9.0	16.2	12.3

Note: Data are weighted to the population of employees.
Sources: *1995 AWIRS main workplace survey and employee survey*

In part, the differential between the AWIRS and ABS data reflects exclusion of both the agriculture sector and small workplaces from the AWIRS main sample (see appendix A). Nevertheless, neither of these exclusions appear sufficient to explain all of the difference.

ABS data, for example, suggest that including the agriculture sector would only cause the casual employment share to rise by just over half a percentage point. Similarly, data from the small workplace survey in the 1995 AWIRS indicate that inclusion of workplaces with 5 – 19 employees would increase the estimated casual employment share in the workplace sample by another half a percentage point or so. While inclusion of data on workplaces with fewer than five employees (were such data available) would undoubtedly see this figure rise further, the estimate is still likely to fall well short of ABS estimates (perhaps by as much as six percentage points).

The question that then arises is what explains these differences, especially since the same definition was utilised in the AWIRS and ABS data. The small casual employment share in the employee data is easiest to explain, and almost certainly reflects response bias. Unlike the ABS survey collections, the employee survey component within the AWIRS involved a self-administered questionnaire returned by mail. This ensured a high level of non-response (36.6 per cent of all questionnaires distributed were not returned) and there are good reasons to suspect that response was poorest among casual employees. The low estimate from the management survey (after adjusting for differences in the sample structure), on the other hand, is far less likely to be the result of response bias.

One possible explanation, however, lies in the treatment by the ABS of owner managers of incorporated businesses as employees of their own businesses. Many of these so-called 'employees' are likely to respond that they do not receive paid sick leave or paid annual leave and hence would be classified by the ABS as casual employees. As a result, labour force survey estimates of casual employment will be biased upwards. This problem will also mean that the ABS has been increasingly overstating casual employment over time. According to ABS labour force data, owner managers of incorporated enterprises represented just 1.8 per cent of all employed persons in February 1978. By 1997 this proportion had increased to 5.6 percent (or 6.7 per cent of employees). The ABS estimates of casual employment may, therefore, overstate the casual employment share by anything up to 6.7 percentage points.

Finally, it needs to be emphasised that, even after accounting for the problems associated with the treatment of owner managers, the definition of casual employment used by the ABS and in the AWIRS does not necessarily measure the number of employees who are actually employed on a casual basis. Casual employment is widely interpreted as implying a high degree of irregularity in employment arrangements and this need not be reflected in access to leave entitlements. Some evidence for this can be seen in comparisons between ABS estimates and those from other surveys where different definitions are used. Brosnan and Walsh (1998), for example, did not use the term casual employment in their large workplace-based survey undertaken in 1995. Instead, they distinguished two types of workers who might be considered to be covered by the casual employment label – occasional employees, defined as 'employees hired on a periodic basis as need arises', and temporary employees, defined as 'employees taken on for a relatively short but unspecified period'. Their results suggest that together these workers accounted for less than 13 per cent of all employees in 1995. By comparison, and as already noted, ABS estimates for roughly the same period suggest a casual employment share of 24 per cent, almost double the proportion recorded in the Brosnan and Walsh survey.

The characteristics of casual employees

Irrespective of which data source is used, it is very clear that casual employees differ from permanent employees in many ways. The most obvious difference is the predominance of part-time work. According to the most recent ABS data available (for August 1998), 68 per cent of casual employees work less than 35 hours each week (i.e. part-time) in their main job. By comparison, 13 per cent of permanent employees work part-time hours. The 1995 AWIRS employee data (which relate only to the job held within the nominated workplace, rather than the main job held) indicate a similar breakdown, with 72 per cent of casual

employees reporting usually working less than 35 hours per week compared with 14 per cent of permanent employees.

The dominance of part-time hours explains, at least in large part, the over-representation of females in casual jobs. The ABS 1997 data indicate that 54 per cent of casual employees are women, whereas only 42 per cent of all employees in permanent jobs are women. In the 1995 AWIRS data the comparable percentages are 60 and 43, respectively.

Further information on the differences between permanent and casual employees, drawing on data collected as part of the 1995 AWIRS employee survey, is provided in table 4. This table indicates that, compared with permanent employees, casual employees:

- are relatively concentrated among the ranks of young people
- are likely to have relatively low levels of formal education
- as already noted, are much more likely to be employed in part-time jobs
- have much shorter average job tenure
- are concentrated in relatively low-skilled occupations, especially sales-related occupations
- are much less likely to be members of a trade union

Possibly the most interesting finding relates to job tenure, with the issue of interest here being how long casual employees appear to remain with the same employer. If casual employees are truly 'disposable', as is widely assumed, then it would be expected that most casuals would be unlikely to remain with the same firm for very long, and thus would have to move frequently between employers in order to ensure continuous employment. The data presented in table 4, however, indicate that the average length of job tenure (at the time of the survey) for casual employees is quite long – at just over three years for both men and women. Additional analyses, however, show that the distribution of responses with respect to job tenure is highly skewed, with 35 per cent of casual employees indicating that they had been in employment at their current workplace for less than one year, and a further 17 per cent indicating that their current employment tenure was between one year and less than two years. Nevertheless, this means that almost 50 per cent of casual employees have current job tenure in excess of two years. Moreover, there is a sizeable number of casual employees with very long tenure indeed – just over 16 per cent of casual employees had been working at their current workplace in excess of five years.

It must also be borne in mind that a large proportion of casual employees are young and hence have only had the opportunity to be in the workforce for a short-time. Consequently, if young people (under 25 years of age) are removed from the sample, the difference in mean job tenure between the casual and permanent employees narrows even further. Overall, the AWIRS data suggest that it is incorrect to automatically presume that casual employment, at least as defined on the basis of the absence of sick and annual leave entitlements, involves limited job tenure with an employer. Many so-called casual employees actually have quite secure jobs that can be expected to last many years.

What types of workplaces and firms employ casuals?

Although supply-side characteristics of casual employees are of interest, firm and workplace characteristics are likely to be far more important in terms of determining the level of casual employment. In the presence of excess supply of labour (as reflected in high and persistent levels of unemployment), and downward rigidity in wages (due to institutional constraints such as awards and National Wage Case decisions), the supply of casual workers is likely to be highly elastic. Employment outcomes for casual workers are, therefore, likely to be largely determined by employers' decisions – that is, the demand side of the labour market.

Table 4: Selected demographic and job characteristics of permanent and casual employees by sex, 1995 (workplaces with 20 or more employees)

	Men			Women		
	Permanent	Casual	Prob. diff. = 0	Permanent	Casual	Prob. diff. = 0
Age:						
% <25 years	12.0	43.0	<0.001	15.1	40.1	<0.001
% 25–54 years	79.6	47.1	<0.001	80.0	55.7	<0.001
% 55 years and over	8.5	9.9	ns	4.9	4.2	ns
Mean age (years)	38.5	31.6	<0.001	36.8	31.1	<0.001
Birthplace:						
Australia born (%)	76.4	78.7	ns	75.8	81.7	<0.001
MESa (%)	11.1	8.0	0.012	11.4	6.8	<0.001
NESa (%)	12.5	13.2	ns	12.8	11.5	ns
Education:						
Higher educ. qual.(%)	32.6	24.9	<0.001	38.2	25.0	<0.001
Vocational qual. (%)	19.7	11.6	<0.001	10.9	7.9	0.004
Part-time (%)	4.6	59.6	<0.001	25.3	81.2	<0.001
Hours worked (mean)	43.9	27.2	<0.001	37.7	20.7	<0.001
Job tenure (mean years)	7.2	3.3	<0.001	5.5	3.1	<0.001
Occupation:						
Managers (%)	10.1	1.5	<0.001	4.5	*	<0.001
Professionals (%)	17.1	8.5	<0.001	20.4	7.0	<0.001
Para-professionals (%)	10.2	4.2	<0.001	11.0	6.3	<0.001
Tradespersons (%)	14.6	6.8	<0.001	1.6	*	ns
Clerks (%)	10.6	5.4	<0.001	33.5	13.0	<0.001
Salespersons, etc. (%)	7.2	32.8	<0.001	15.0	49.5	<0.001
Machine operators (%)	14.2	10.3	0.005	2.6	3.5	ns
Labourers, etc. (%)	16.1	30.4	<0.001	11.4	19.4	<0.001
Union member (%)	53.9	35.3	<0.001	48.2	34.4	<0.001

Notes: Data are weighted to the population of employees.

a MES and NES denote persons born overseas in a mainly English-speaking country and in a non-English speaking country, respectively.

ns Difference is not statistically significant (at 5% significance level in a two-tailed test).

* Relative standard error is too high to produce a reliable estimate.

Source: *1995 AWIRS employee survey*

Following Dawkins and Norris (1990), firms can be thought of as choosing between employing casual or permanent labour, with this choice dependent upon the relative cost and relative productivity of these two forms of labour. In simple neo-classical formulations of the demand for labour, with declining marginal productivity of labour, and where labour is the only variable input, demand is inversely related to the cost of labour. If you allow for two types of labour which are substitutes (i.e. casual labour and permanent labour), it follows that in choosing between the two different types, it is the relative cost that matters.

The very basis for the distinction between casual and permanent labour, however, is that they are not perfect substitutes. For example, permanent workers, as noted above, have longer average tenure – which will have positive consequences for training and human capital accumulation (relative to casuals). This longer average tenure is reinforced by legislative protections which make it both more difficult and costly for firms to dismiss permanent workers. The relative productivity of casual labour will thus vary across firms and industries. Some factors which are likely to influence these differences include:

- the importance of skills and training

- the importance of labour flexibility in responding to changes in output demand
- the way in which work is organised

These factors, in turn, affect the relative demand for casual workers. In jobs which require high skill levels (i.e. skills that are acquired only after substantial investments in formal education and training, or through long periods of on-the-job learning), casual labour should be relatively unattractive to employers. On the other hand, in firms facing market characteristics which involve a high degree of variability in demand over the course of a day or a week (such as in retail trade or restaurants), or even a year (such as in agriculture), casual labour may be highly sought after by employers. Use of permanent labour in such situations, for example, is likely to involve hoarding labour, at considerable cost, during periods of low demand. In contrast, casual labour can be hired to work only during the times of peak demand.

In table 5, the casual share of employment (at workplaces with 20 or more employees) cross-classified by various workplace and firm characteristics is reported for both 1989 and 1995. This table reveals that the incidence of casual employment does indeed vary with a variety of workplace and firm characteristics. The key features of this table are summarised below.

Due to the 'lumpier' nature of employment within small firms and workplaces, the demand for more flexible employment conditions should be commensurably greater in small workplaces and firms. The data presented in table 5 are consistent with this hypothesis with respect to workplace size, with the share of casual employment greatest at small workplaces (less than 50 employees). With respect to firm size, however, the relationship appears to be non-linear, with the casual employment share relatively large in both small and large firms.

Table 5 also reveals that the increase in casualisation over the period considered has been most rapid in the largest firms. One possible explanation for this slightly surprising result might lie in a decline in union resistance to casualisation, bearing in mind that rates of unionisation are much higher in large firms than in small firms.

As might be expected, casual employment is more common where work is seasonal and where markets appear to be more competitive. That said, some of the most competitive markets are export markets, and here the incidence of casual employment is extremely low. One possible explanation for this is that firms in export markets are required to operate on a relatively high production frontier, requiring in turn a highly skilled and committed workforce. As noted earlier, these are characteristics not typically associated with casual employment.

As noted above, a key influence on the relative productivity of casuals vis-à-vis permanent workers is likely to be the relative importance of skills and training. This factor is assessed here by reference to responses on the length of time it was expected that a new employee would take to achieve the standard expected of other longer established employees. As reported in table 5, there is evidence that casual employees are more likely to be found where the 'main' job classification requires relatively little on-the-job training and learning. The relationship, however, is not as strong as might have been expected. That said, the variable used here is quite weak given the responses relate only to the numerically largest job classification, whereas in the flexible firm model (and other theories based on labour market segmentation) casual employment is expected to be used to fill mainly jobs at the periphery of the firm rather than those at the core of the business.

Table 5: Incidence of casual employment (% of employees) by selected workplace characteristics, 1989 and 1995

Size	1989	1995
Workplace size (number of employees)		
20–49	20.5	20.5
50–99	15.7	17.4
100–199	16.7	20.0
200–499	12.5	15.3
500+	9.8	12.0
Firm size (number of employees)		
<100	21.8	21.6
100–499	14.6	14.6
500–999	10.2	11.6
1000–4999	10.3	14.3
5000–9999	12.0	11.3
10000–19999	9.3	14.0
20000+	18.7	23.0
Market characteristics		
Demand		
Rising	15.1	17.8
Stable	14.1	15.6
Contracting	9.5	14.1
Seasonality		
Seasonal	17.7	19.8
Non-seasonal	12.8	15.5
Volatility		
Unpredictable demand	14.8	13.2
Predictable demand	14.1	17.5
Competition (commercial sector only)a		
Many competitors	22.9	23.5
Few competitors	12.8	17.2
No competitors	7.4	16.3
Nature of market (commercial sector only)a		
Primarily export	2.9	5.6
Primarily domestic	19.8	22.6
Skill requirements (time required for new employee to reach expected standard)		
<1 week	16.1	17.2
1–4 weeks	20.4	22.0
1–3 months	14.6	17.7
3–6 months	10.9	15.6
6–12 months	7.5	10.9
>1 year	7.5	10.1
Corporate culture		
HRM index		
<1	na	8.8
>1 and <2	na	12.5
>2 and <3	na	15.8
>3	na	19.2

Ownership		
Wholly Australian	13.0	17.2
Some foreign	27.2	22.4
Wholly or predominantly foreign	10.1	9.3
Sector/operational status		
Private commercial	17.3	20.7
Private non-commercial	29.2	20.6
Public commercial	4.5	6.5
Public non-commercial	9.7	9.6
Age of workplace		
<5 years	16.0	33.3
5 to <10 years	22.3	21.1
10 to <20 years	17.5	22.4
20 to <50 years	12.2	17.3
50 or more years	11.5	10.7
Industry		
Mining	1.3	1.8
Manufacturing	5.6	7.1
Electricity, gas and water	2.4	2.2
Construction	3.4	2.6
Wholesale trade	7.6	6.0
Retail trade	47.2	42.8
Accommodation, cafes and restaurants	62.1	55.7
Transport and storage	3.5	12.3
Communication services	3.1	2.0
Finance and insurance	1.3	2.9
Property and business services	11.7	8.8
Government administration	6.4	5.4
Education	16.2	18.0
Health and community services	16.6	19.9
Cultural and recreational services	40.0	43.8
Personal and other services	2.8	9.9
Union influence		
Union density		
Zero	25.5	19.1
<50%	12.9	17.8
51–75%	11.5	13.1
76–98%	16.2	16.6
99–100%	9.4	12.3
Union activity		
Non-union	24.8	18.9
No active union present	17.5	20.7
Active union present	9.0	10.4
TOTAL	**14.1**	**16.6**

Notes: Estimates have been weighted to reflect the population of employees covered by the main AWIRS samples.
a Administrative offices have been excluded.

Sources: *1989/90 and 1995 AWIRS main workplace survey*

Employer preferences for casual labour are also an obvious determinant of inter-firm variations in employment of casual workers, and is likely to be a function of an organisation's culture. A crude measure of corporate culture is provided in the 1995 data (but not in 1989/90), by an index constructed from manager responses to two questions concerning the amount of resources devoted to developing a 'corporate ethic and culture' and to human resource management. As shown in table 5, the casual share of employment rises in direct proportion with scores on this human resource management (HRM) index.

Another factor that might reflect differences in corporate culture is foreign ownership. In particular, preferences for casual employment might be expected to be stronger in foreign-owned workplaces than in Australian-owned workplaces. Over time, Australian managers are more likely to have adjusted their management practices to the existing institutional constraints on employment, including that associated with casual employment (deriving from, for example, provisions in awards and the operation of trade unions). Workplaces which are foreign-owned, on the other hand, are less likely to be influenced by these historical factors, and are more likely to have instituted management practices which improve workplace performance, including removing restrictions on the type of labour that can be employed. The evidence presented, however, provides no support for this hypothesis – casual employment is quite uncommon in predominantly and wholly foreign-owned operations.

Differences in the incidence of casual employment within private sector organisations as compared with public sector organisations may also reflect differences in corporate culture. Mangan and Williams (1997), for example, reported evidence of markedly lower rates of casual employment within the public sector – even after controlling for other factors such as unionisation, firm size, and the age and sex composition of the workforce. Similarly large differences in the propensity of public and private sector workplaces to employ casuals is evident in the AWIRS data. While Mangan and Williams offer no explanation for their finding, in our view the basis for this result might lie in public sector employment rules that have traditionally militated against the use of casual employment.

Given a degree of inertia in management practices, and that the widespread use of casual employment is a relatively recent phenomenon, it seems reasonable to expect that the incidence of casual employment will be greatest in new workplaces. The AWIRS data, especially the 1995 data, strongly support this hypothesis.

There are very obvious inter-industry differences in the use of casual employment, with the casual employment share in the 1995 data ranging from around two per cent in mining and in utilities (electricity, gas and water, and communication), to over 50 per cent in accommodation, cafes and restaurants. It is suspected that such differences will reflect differences in the nature of provisions in awards that apply in these industries. Of course, these differences may also be explained by differences in many of the other variables already discussed, such as differences in union organisation, market characteristics, corporate culture and skill requirements.

Previous research (e.g. Simpson, Dawkins & Madden 1997; Mangan & Williams 1997) has found evidence of negative associations between casual employment and level of union membership, which is usually assumed to reflect the success of trade unions in opposing casual employment. Similar relationships are evident in the AWIRS data, with the casual employment greatest in non-union workplaces, and smallest in those with complete, or close to complete, union coverage. It is, however, not clear that inverse associations between union membership levels and the share of casual employment in total employment necessarily reflect the causal process assumed. Indeed, it is often claimed that the growth in casual employment has been an important contributor to the decline in unionisation levels in this country (e.g. Peetz 1990). Furthermore, it is not obvious that the level of union membership is a good measure of union influence. Instead, what is needed are more direct measures of union activity. In table 5, therefore, we also examine the relationship between a simple binary indicating the presence of 'active unions' and the casual employment share. The results again suggest that unions are a significant obstacle to the spread of casual employment, with the casual employment share at workplaces with 'active' unions just nine per cent in 1989/90 and ten per cent in 1995. These shares are about half those found at workplaces where unions are not active.

In this section, a number of factors that might explain the differential use of casual employees across firms have been canvassed. As just discussed in relation to industry differences, identifying the relative importance of these factors is not straightforward because many of the different influences at work are interrelated. In a related earlier paper, Wooden and Hawke (1998) employed multi-variate techniques on the data examined here, in an attempt to disentangle the different influences. In that paper, the key influences on casual employment levels were found to be:

- skill requirements
- an 'active' union presence in the workplace
- public ownership
- workplace age
- seasonality in product demand

Wooden and Hawke (1998), however, also conclude that a major source of the explanatory power of the workplace-level model lies not in the factors highlighted above, but in unexplained inter-industry differentials. That is, even despite the inclusion of an extensive array of controls, very large differences between industries remain. Such differences presumably reflect other unobserved differences across industries in either the demand for casual labour, or in the presence of restrictions on the use of casual labour – although they may also reflect unobserved supply-side factors as workers sort themselves into different firms and jobs. Specifically, given the weakness of the variable measuring skill requirements, it is strongly suspected that the very large variations in the incidence of casual employment across industries reflect industry-specific and function-specific differences in work productivity. Differences in provisions in industry-based awards may also be of importance.

Finally, replication of the multi-variate analysis reported in Wooden and Hawke (1998), but using only data from 1995 and including the HRM index as an additional explanatory variable, revealed no evidence of any significant association between this variable and casual employment. In other words, the apparent association between the incidence of casual employment and the HRM index reported in table 5 was simply a function of correlation with other more important intervening variables.

Outsourcing

While the growth in importance of outsourcing, and its implications for labour market arrangements, has drawn widespread comment (e.g. Boreham 1992; Gome 1998; Quinlan 1998),there is relatively little information or detailed research concerning the phenomenon in Australia. Most attention from researchers is focussed on the challenge contract labour poses for established conceptions of labour law (e.g. Brooks 1988; Fenwick 1992; Stewart 1992; Wallace-Bruce 1992; Taxation Institute of Australia 1993; Underhill & Kelly 1993; Creighton 1994). As noted earlier, however, there are at least two exceptions here – the NILS studies conducted for the Australian Taxation Office in 1994 and the comparative study of Australian and New Zealand businesses reported in Brosnan and Walsh (1998). In addition, the two rounds of the AWIRS provide information with which to assess growth in the incidence of outsourcing.

The NILS research

The NILS research involved both a household and an employer-based survey, although the former focussed only on self-employed contractors. The household-based survey was conducted in conjunction with the regular monthly population survey of the ABS in May 1994, and hence the data collected should be representative of the Australian population. The results from this survey are reported in VandenHeuvel and Wooden(1995), and lead to the conclusion that 7.5 per cent of all Australian workers employed in the non-farm sector might be classified as self-employed contractors, although just over one-in-five of these so-called self-employed contractors actually described themselves as wage and salary earners.

If this estimate can be believed, then the importance of outsourcing must be large indeed, given it was only intended to cover the self-employed. To these self-employed must be added the many persons employed on a conventional basis by organisations that specialise in providing contract labour services. The workplace-based survey reported in Wooden and VandenHeuvel (1996a, 1996b) was designed to provide estimates using this wider definition. This latter survey, which was conducted in August 1994, suggests that together, the various types of outsourced labour represent 10.3 percent of total labour requirements in the non-farm sector.

It was argued, however, that there are at least two reasons why this estimate is likely to be conservative. First, the nature of the sample is likely to be biased towards understating contractor-related employment. The sample was, for example, restricted to firms employing at least 100 employees, which should cause the incidence of contractor employment to be understated given that economies of scale arguments suggest outsourcing will be relatively attractive to small firms (Abraham & Taylor 1996). Second, there are good reasons to be sceptical about the ability of managers in many workplaces to accurately enumerate the number of contractors employed, especially in large organisations where responsibility for outsourcing is devolved to line management. Further, quantifying the number of persons employed by contractors is likely to be problematic given the hiring organisation often has no direct control over how the work is done or who does it. On the other hand, response bias might be expected to operate in the other direction, with businesses without an interest in employing contract labour possibly more likely to view the survey as irrelevant and thus less likely to return the questionnaire.

Brosnan and Walsh

Brosnan and Walsh (1998) also report on results from a workplace-based survey – but one which has a much larger sample than that used by Wooden and VandenHeuvel (1996a, 1996b) (see endnote 6). Moreover, since their sample was drawn from the ABS Business Register, they were able to apply weights to arrive at population estimates. The results from this survey suggest that in 1995, contractors and consultants – defined as persons who contract to provide labour services to an organisation but who are not direct employees of that organisation – represented only 4.2 per cent of total labour requirements of Australian businesses.

These findings are thus at odds with the estimates reported in Wooden and VandenHeuvel. Which is to be preferred, however, is not entirely obvious. On the one hand, the more representative nature of the sample used in the Brosnan and Walsh study suggest that its estimate should be more reliable. On the other hand, the definition of contractors they used is extremely vague and may not have elicited appropriate responses. It does not, for example, distinguish between contractors and employees who work for those contractors.

AWIRS

The only publicly available source of data on the extent of outsourcing which provides comparable figures over time comes from the 1989 and 1995 Australian Workplace Industrial Surveys (AWIRS). As described in appendix A, the AWIRS involved a number of different survey instruments. One of these – the Workplace Characteristics Questionnaire – sought objective information on such factors as employment and the composition of employment. The questionnaire also requested information on the number of men and women during specific pay periods (in September 1989 and August 1995) who were:

- working on a contract for service basis for the workplace
- did most of their work at or from home on a contract basis
- were paid by a placement or employment agency while working at the workplace

As a measure of contractor employment, however, these data are also far from ideal. At least three criticisms can be made:

- Like Brosnan and Walsh (1998), the definition of contractors used in the AWIRS is quite vague and likely to lead to an understatement of the incidence of contract working.
- The exclusion of both small workplaces(fewer than 20 employees) and the Agriculture sector is likely to lead to an understatement of the significance of contractors in the economy.
- Again, there are good reasons to question the ability of management to provide accurate information about workers who do not appear on the payroll, especially as the AWIRS was largely concerned with issues unrelated to contractor employment.

In general, it is suspected that the AWIRS will understate the significance of contracting out. Nevertheless, and despite these concerns, the AWIRS remains the only existing data source which can provide estimates for two points in time which are directly comparable.

These data provide support for the hypothesis that contractor-related employment has been growing over this period. As documented in table 6, in September 1989, contractors and their employees (including agency workers and outworkers employed on a contract for service basis) are estimated to:

- have been in use at 47 per cent of workplaces (with 20 or more employees)
- represented 3.5 per cent of the total non-farm workforce (defined as employees, contractors and
  their employees, agency workers and home workers or outworkers) working for, or at, these workplaces

By August 1995, while the proportion of workplaces using outsourced labour had actually fallen(to 45 per cent), the proportion of workers employed as a result of outsourcing had risen to 4.7 per cent, almost two-thirds (64.3 per cent) of whom were men.

Table 6: Growth in the use of contract labour by labour type, 1989–1995

Labour type	% of workers[a]		% of workplaces	
	1989	1995	1989	1995
Outworkers	0.2	0.3	3.4	4.1
Contractors and their employees	2.5	2.8	39.1	32.9
Agency workers	0.8	1.6	13.5	20.6
Total outsourced labour	**3.5**	**4.7**	**46.7**	**45.0**

Note: a Workers are defined here as the sum of employees and contract labour.

Sources: *1989/90 and 1995 AWIRS main workplace surveys (Workplace Characteristics Questionnaires)*

Interestingly, the figures presented in table 6 suggest that the major source of growth in contractor employment has been employment agencies. Indeed, the rise in the share of employment accounted for by other contractor organisations (including self-employed contractors) has been quite modest. Employment agencies, on the other hand, have doubled their share from 0.8 per cent to 1.6 per cent over the six-year period.

In terms of the actual numbers of workers involved, the 1995 data imply an employment weighted estimate for the number of persons working as, or for, contractors of about 244000. This is 54 per cent higher than the comparable 1989 estimate, and implies an annual growth rate of 7.5 per cent. By comparison, the employee population underlying the main AWIRS sample grew at the rate of only 1.6 per cent per annum. The reality, therefore, is that the rate of growth of employment of contract labour implied by the AWIRS data is substantial, and is certainly much greater – almost five times greater – than the rate of growth in the number of employees.

Growth in contractor employment by workplace characteristics

Drawing again on the AWIRS data, table 7 reports estimates of the number of persons working as, or for, contractors as a percentage of the total workforce in both 1989 and 1995, cross-classified by various workplace characteristics. This table suggests that both the incidence of, and growth in, contractor-related employment has not been evenly distributed across the population of firms (workplaces). The main features of table 7 are as follows:

- While the utilisation of contractors (and their employees) was noticeably less in large firms and large workplaces in 1989, it is the large firms and workplaces where the growth in contracting out since 1989 has been concentrated. Indeed, in the smallest firms, the incidence of contractor related employment has actually fallen.
- While private sector firms are more likely to use contractors, in terms of growth, it is not the distinction between the public sector and the private sector that is important. Growth in the incidence of contracting out has, instead, been concentrated in those firms, both private and public, that operate on a commercial basis (i.e. activity is undertaken for the purpose of making a profit). In contrast, there has been minimal change in the incidence of outsourcing at non-profit organisations.
- The growth in contractor-related employment has been most marked in those workplaces established during the last five years.
- While foreign ownership appears to be relatively more conducive to contracting out, growth has not been any more rapid in foreign-owned firms as compared with Australian owned firms.
- While it is widely believed that heightened competition promotes contracting out, it is firms in the less competitive industries (as defined by the number of competitors) that appear more likely to use contractors. This relationship appears to have changed little since 1989. On the other hand, it is true that it is firms in the export sector, which are most exposed to the forces of international competition, that have most rapidly expanded utilisation of contractors since 1989.
- Except for those workplaces with complete or close to compete union coverage of the workforce, the growth in contracting out has been most marked in highly unionised workplaces, suggesting perhaps that firms have turned to contracting out as means to avoid some of the consequences of unionisation. The decline in contracting out in workplaces with very high levels of union coverage, on the other hand, suggests the effectiveness of union opposition to contracting out. That said, the activity-based measure of union presence suggests there is no obvious relationship between union activity and either the incidence of contracting out or growth in that incidence.

Table 7: Incidence of contracting out by selected workplace characteristics, 1989 and 1995 (contractors and their employees as a % of total workforce)

	1989	1995
Workplace size (number of employees)		
20–49	5.2	5.3
50–99	4.9	4.1
100–199	3.5	4.7
200–499	2.4	4.7
500+	2.4	4.6

Firm size (number of employees)		
<100	5.0	4.4
100–499	4.1	5.2
500–999	4.0	5.4
1000–4999	3.6	4.6
5000–9999	3.8	5.8
10000–19999	1.7	4.7
20000+	2.1	3.7
Sector /operational status		
Private commercial	3.8	5.3
Private non-commercial	4.8	4.5
Public commercial	2.3	4.6
Public non-commercial	3.0	3.3
Age of workplace		
<2 years	3.6	6.4
2 to <5 years	3.5	6.5
5 to <10 years	4.0	4.0
10 to <20 years	2.8	4.3
20 to <50 years	3.8	5.0
50 or more years	3.3	4.5
Ownership		
Wholly Australian	3.4	4.2
Some foreign	3.2	4.8
Wholly or predominantly foreign	4.6	6.6
Competition (commercial sector only)a		
Many competitors	3.8	4.7
Few competitors	3.2	5.1
No competitors	6.0	6.7
Nature of market commercial sector only[a]		
Primarily export	4.3	7.7
Primarily domestic	3.7	4.9
Demand		
Rising	3.7	4.7
Stable	2.9	4.8
Contracting	3.8	4.1
Skill requirements (time required for new employee to reach expected standard)		
<1 week	4.8	6.2
1–4 weeks	2.9	5.2
1–3 months	3.6	3.9
3–6 months	3.2	4.9
6–12 months	4.6	4.2
>1 year	2.5	5.2
Union density		
Non-union	3.7	4.5
<50%	4.2	4.9
51–75%	3.4	5.6
76–98%	3.3	5.0
99–100%	2.9	2.8

Union activity		
Non-union	3.7	4.5
No active union present	3.8	4.7
Active union present	3.1	4.7
Industry		
Mining	3.0	15.2
Manufacturing	3.5	5.4
Electricity, gas and water	5.3	5.2
Construction	8.2	8.6
Wholesale trade	4.1	4.6
Retail trade	1.9	3.1
Accommodation, cafes and restaurants	5.7	4.8
Transport and storage	3.4	6.6
Communication services	1.4	4.2
Finance and insurance	2.3	4.9
Property and business services	4.8	4.8
Government administration	1.9	3.6
Education	3.0	2.9
Health and community services	4.0	5.9
Cultural and recreational services	3.9	2.0
Personal and other services	2.4	1.5
TOTAL	**3.5**	**4.7**

Notes: Estimates have been weighted to reflect the population of employees covered by the main AWIRS samples.

a Administrative offices have been excluded.

Sources: *1989/90 and 1995 AWIRS main workplace survey*

Growth in contracting out has been less marked in firms where demand has been declining. Contracting out would thus not appear to be synonymous with downsizing.

Industry patterns in both the incidence of, and growth in, contractor-related employment are highly variable. Growth has been spectacular in the mining sector – although the estimates for this sector are subject to a high degree of sampling error. It has also been quite marked in communication (albeit from a very low base), finance and insurance, transport and storage, and government administration. On the other hand, the incidence of contractor-related employment appears to have actually fallen in many areas of the services sector – notably cultural and recreational services, personal and other services, and accommodation, cafes and restaurants.

3 Casual employment and training

Participation in training

As noted in the introduction, simple economic theory suggests that training investments will be dependent on the length of time over which these investments can be recouped. In turn, because casual employees are likely to have a shorter tenure with the firm (because they can be easily dismissed) than permanent workers, employers can be expected to be less willing to favour casual employees when offering training places. As well, casual employees themselves may be less willing to participate in the training, especially if the training is considered to be largely firm-specific and thus not easily transferable to other employers.

It thus comes as no surprise that the available empirical evidence indicates that the probability of receiving training is relatively low among casual workers (e.g. Baker & Wooden 1992; Miller 1994; Wooden 1996a, 1996b). These studies rely principally on ABS surveys of education and training experience collected in 1989 and 1993. A further round of this survey was conducted in 1997. A summary of data from all three waves of this survey is presented in table 8. As is clearly documented, in all three survey years, casual workers were much less likely than permanent workers to have participated in both in-house training and in external training, with the difference in access to in-house training especially large.

Table 8: Incidence of training by employment status and type of training, 1989, 1993 and 1997 (% of persons who had a wage and salary job in previous 12 months)

	In-house	Employer-supported	External	Total Other[a]	On-the-job	Studied in previous year
1989						
Permanent	39.8	7.7	3.8	11.0	73.2	15.5
Casual	15.2	1.2	4.1	5.2	66.3	21.9
1993						
Permanent	37.6	9.2	4.0	13.2	83.4	16.3
Casual	12.9	1.6	6.1	7.7	77.2	25.4
1997						
Permanent	40.5	15.3	9.0	22.4	76.3	14.9
Casual	16.7	3.4	13.2	15.9	68.9	20.7

Notes: In order to be able to compare the 1989 and 1993 data with the 1997 data, persons aged 15 to 20 who were still at school were excluded from the 1997 data.

a Other external training includes external courses undertaken while:

1) working as a wage or salary earner that were not employer supported

2) working but not as a wage or salary earner

3) not working

Sources: *ABS, How workers get their training, Australia 1989, cat.no.6278.0; ABS, Training and education experience, Australia 1993, cat.no.6278.0; unpublished data from the ABS 1997 Survey of Education and Training Experience*

Interestingly, when external training participation is separated into that component undertaken with employer support, and the component undertaken without any such support, we find the incidence of participation in training courses without employer support is higher among casual employees. An obvious explanation for this difference is that casual workers may be attempting to compensate for their lack of access to employer-supported training by voluntarily participating in work-related training in their own time and at their own expense. Such training is presumably intended not to improve employment prospects in their current employment, but in subsequent jobs. Note further that this disparity between permanent and casual employees has been growing over time.

Of course, it is also true that casuals have more scope for participating in off-the-job training, given the majority of casuals tend to also work part-time. Previous analysis of the 1993 ABS education and training data(Wooden 1996a), however, suggests that differences in participation in training between permanent and casual workers are not simply a function of differences in hours worked. Likewise, we come to the same conclusion using the 1997 ABS data.

As shown in table 9, among both full-time and part-time workers, those who were employed on a casual basis were less likely to have access to employer-supported training – be it either in-house or external employer-supported training. Clearly, the key factor determining access to employer-supported training is not hours of work, but casual versus permanent employment status.

Further, table 9 also shows that it is actually among the full-time workers where the main difference regarding participation in other external training lies – that is, casual full-time workers are more likely than the permanent full-time workers to participate in other external training, while differences between the two groups of part-time workers are small.

Table 9: Incidence of training by employment status and by hours of work, 1997 (% of persons who had a wage and salary job in previous 12 months)

	In-house	Employer-Supported Supported	External Other[a]	Total	On-the-job	Studied in previous year
Permanent						
Full-time	40.7	16.1	8.5	22.6	76.8	14.8
Part-time	38.5	10.9	11.6	20.9	72.1	15.3
Casual						
Full-time	14.4	3.2	13.6	16.0	68.6	13.2
Part-time	14.8	2.9	10.8	13.3	57.6	20.0

Note: a Other external training includes external courses that were:
1) not employer supported and undertaken while working as a wage or salary earner
2) undertaken while working but not as a wage or salary earner
3) undertaken while not working.

Source: *Unpublished data from the ABS 1997 Survey of Education and Training Experience*

Confirmation of the disadvantage faced by casual workers in accessing employer-provided training is also provided by other data sources. Data from the employee survey conducted in conjunction with the 1995 AWIRS, for example, are summarised in table 10. The data indicate that just over 50 per cent of casual employees reported receiving employer-supported formal training at some time in the previous year, compared with just over 60 per cent of permanent employees. The table also shows that this difference holds for both male and female employees.

Table 10: Incidence of formal training by employment status, 1995 (% of employees at workplaces with 20 or more employees)

	Permanent	Casual	Prob. diff.=0
Men	61.3	52.7	<0.00
Women	64.6	52.5	<0.00
Persons	62.8	52.5	<0.001

Note: Training is defined in the AWIRS as any work-related training provided by their employer during the previous 12 months. Persons indicating that training was 'not relevant' to them have been treated as not having received training.
Source: 1995 AWIRS employee survey

Multi-variate analyses

While the differences in the likelihood of working part-time versus full-time cannot explain the differential in access to training between casual and permanent employees, potentially a large range of other factors – including personal (such as age, education, sex), job-related (e.g. occupation) and firm-related (e.g. firm size, industry) factors – may explain the differences. For example, higher levels of educational attainment may be associated with greater access to training, since, as Lynch (1992) suggests, additional years of schooling may signal an interest in and capacity for training, thus making the provision of training to such workers cost-effective.

The nature of one's job, and in particular the skill requirements of the job (generally proxied by occupation), is also considered to influence access to training, as it is argued that certain jobs require higher training levels than others.

Firm characteristics have also been found to be important determinants of training acquisition. In particular, firm size has been found to be positively associated with formal training participation (Wooden 1996b). The argument being that not only can larger firms take advantage of economies of scale, but that such companies provide their employees with a greater incentive to undertake training due to more developed internal labour markets.

In order to test whether the training differential between casual and permanent employment status remains once other factors are taken into account, multi-variate statistical analyses are required. Numerous Australian studies of this type exist, and these have consistently found that, even after controlling for a wide range of additional factors, a substantial differential between permanent and casual employees in terms of access to training exists. For example, using the 1989 ABS data on training and education, Baker and Wooden's (1992) multi-variate analyses lead to the conclusion that casual employees are significantly less likely to receive all three forms of training (i.e. in-house training, external training and on-the-job training) considered.

Further, using the 1993 ABS Survey of Training and Education, Wooden (1996b) calculated the predicted probability of casual employees in the prime-age group receiving formal employer-sanctioned training as being about half that of permanent employees. This lower level of participation in employer-provided training, however, was found to be compensated for by a higher level of participation by casual employees informs of training not sanctioned by the employer.

For the purposes of this report, we also conducted multi-variate analyses in order to assess the extent of the training differential between casuals and permanent workers, using more up-to-date data – the 1995 AWIRS employee data. Additionally, and unlike previous research, we allow for the possibility that the relationships between the independent variables included in the analyses and access to training may differ among casual and permanent workers. Furthermore, these additional analyses allow us to determine to what extent observed differences in the probabilities that casual and permanent workers receive training are due to differences in characteristics (of workers and firms), or to differences in training preferences (of workers and firms).

In our analyses, the dependent variable indicated whether or not the employee reported participating in employer-provided formal training in the twelve months prior to the survey. The independent variables are listed in appendix B. Note that these analyses differ in a number of ways from existing multi-variate analyses which made use of ABS training and education data (such as Baker & Wooden 1992, and Wooden 1996b).

The use of AWIRS data, rather than ABS data, allows us to take into account a greater number of measures of firm characteristics, such as:

- the occupational composition of the workforce
- both workplace size and firm size
- whether the firm was foreign owned
- the skill requirements of those in the main occupation in the workplace

As well, existing studies have only controlled for occupation at the one-digit level. In our study, we include measures of occupation at the two-digit level. The inclusion of this more detailed occupational measure allows us to control for more of the variation associated with varying skill requirements of different jobs – an issue which is important with regards to the need for training. However, it must also be noted that the use of the AWIRS employee data restricts us to studying workplaces employing 20 employees or more (see appendix A), and thus the results from our analyses do not pertain to employees in small workplaces.

As reported in appendix B, the logit regression models that were estimated performed relatively well; in particular, the equations have good predictive power. Further, many of the expected relationships are observed. For example, employees who had higher levels of educational attainment were more likely than those with low levels of education to have participated in training. Working more hours was associated with a greater likelihood of training, as was working in larger firms (rather than in a firm with less than 100 employees).

As has been reported elsewhere (e.g. Miller 1994; VandenHeuvel & Wooden 1996), we found that mothers with young children have a relatively low likelihood of participating in training.

Finally, differences in the skills requirements of the main job at the workplace were also found to be strongly associated with training probability – for instance, those in workplaces where the main job could be mastered quickly were significantly less likely than those in more skill-intensive workplaces to receive training.

Most importantly for the purpose of this report, the findings again show that even when a large range of employee and job-related characteristics are taken into account, casual employees remain less likely to have participated in employer-provided training. Specifically, results from the logit regression models suggest that the probability of a casual worker receiving work-related training relative to an otherwise comparable permanent worker is 68 per cent (or stated conversely, permanent employees are almost one and a half times more likely to have received such training).

The final two columns of appendix B show the results when access to employer-provided training was analysed separately for casual employees and permanent employees. Two key findings emerge from these analyses:

- Statistical tests suggest that the functional form of the specification does differ significantly between casual and permanent employees, indicating that the relationships between the independent variables included in our analyses and access to training differ depending on whether the employees are casual or permanent workers. The implication of this, then, is that when examining differences between access to employer-supported training of casual and permanent employees, the analyses should be conducted separately for these two groups of employees.

- The results from the disaggregated analyses were used to calculate average predicted probabilities of training. The raw difference in these probabilities was then decomposed into two parts, with the first part indicating differences in the mean endowments (or characteristics) of permanent and casual employees (such as differences in types of jobs and personal characteristics), and hence is explained by our model. The second part is the residual component which reflects unexplained differences in training incidence among the two groups of workers, and most likely reflects either differences among workers in preferences for training or differences in the behaviour of employers with respect to casual and permanent labour. The results of this analysis indicate that all of the difference in the predicted probabilities that casual and permanent workers received training was due to the second component – the residual or unexplained component.

Thus, factors that are not taken into account in our model are the key explanatory factors behind the differential access to employer-supported training. In other words, these results suggest that after controlling for differences in personal characteristics and types of jobs held:

- Either, casual workers are still treated very differently from permanent workers by employers when they are allocating training opportunities.
- Or, casual employees and permanent employees have very different preferences for training.

The first mentioned conclusion lends support to Curtain's (1996) conclusion, based on a small survey of employers, that the majority of employers of casual workers do not feel it is necessary to go beyond providing basic training for their casual workers. But as discussed earlier, in addition to offers to partake in training differing between casual and permanent workers, it is also likely that casual and permanent workers themselves make different decisions about seeking out and/or accepting training opportunities. Given the likelihood of a shorter job tenure, casual workers may see less benefit in participating in employer-provided training than their permanent counterparts. Since we were unable to take into account employee's preferences for training, this factor could also help explain why the training differential is not explained by the factors included in our model.

Quantity of training

While casuals are clearly less likely to participate in employer-supported training, differences in terms of the amount of training received among those who did access training are less obvious. Published data from the 1997 Survey of Education and Training reveal that when hours of both internal and external training courses (undertaken while employed) are considered, casual and permanent workers undertook a similar average number of hours of training – 21 hours over the twelve month reference period for the permanent workers, compared with 22 hours for the casual workers (ABS 1998a, p.28). This comparison, however, provides us with no information on whether there are differences when training supported by the employer is considered separately from that which is undertaken without employer involvement.

Wooden (1996b) looked at the issue of hours of training in more detail using the 1993 Survey of Training and Education. For in-house training, the data show that hours of training were greater for permanent workers than casual workers.

Nonetheless, it is also clear that the part-time versus full-time distinction is the critical factor here, rather than the casual/permanent distinction. That is, while the number of in-house training hours was slightly greater for full-time permanent workers than full-time casual workers (42 versus 36 hours), the difference was not statistically significant. Likewise, the difference between such training hours for part-time permanents and part-time casuals (21 and 19) was not significantly different. In other words, full-time workers were more likely to participate in a greater number of in-house training hours than part-time workers, regardless of their permanent or casual status.

For external training hours, the picture was found to be quite different – casual employees (both full-time and part-time) spent, on average, more hours in external training than their

permanent counterparts. Yet, Wooden also found that for the permanent employees, a much greater percentage of these hours were employer-supported training than was the case for the casual employees. This again suggests a compensation effect, with casual employees more likely than their permanent counterparts to participate in non-employer supported training, and to do so for an above average length of time, in order to counteract the lack of employer-supported external training.

Attitudes towards training

Data on access to, and quantity of, training for casual and permanent employees reveals nothing about the attitudes of the employees regarding training. To look at this issue, we examine:

- satisfaction with training received
- reasons for not participating in training (among those who did not participate in training in the previous year)

Using the 1995 AWIRS employee data, we can look at satisfaction with the training received among those who had participated in work-related training during the 12 months prior to being surveyed. The results show that permanent employees were actually less likely than casual employees to be satisfied with the training they received (see table 11), with 63 per cent of casual workers, compared with only 56 per cent of permanent workers, indicating satisfaction. This, of course, does not necessarily mean the quality or amount of training received by casual workers was better than that received by the permanent workers. Instead, it may reflect differences in what permanent and casual employees expect from their employer and their job.

Table 11: Satisfaction with training by employment status, 1995 (% of employees who received training in previous 12 months)

	Permanent	Casual	Total
Satisfied	55.5	62.5	56.2
Neither satisfied nor dissatisfied	25.6	25.8	25.6
Dissatisfied	18.9	11.7	18.2

Source: *1995 AWIRS employee survey*

Earlier, we noted that even with a large range of factors taken into account, casual workers are less likely than their permanent counterparts to participate in training. As discussed, it is very likely that part of this unexplained difference is associated with barriers to being offered training, as well as personal preferences for training. To take a closer look at this issue, we compared the reasons that casual and permanent workers gave for not participating in training. To do so, ABS data from the 1997 Survey of Education and Training Experience were used – this data source provides information on the main reason for not attending training among wage and salary earners who had not attended a training course in the previous 12 months.

Table 12 indicates that the most common response among casual employees for not participating in training was a belief that further training was not needed. Overall, 48 per cent of casual workers said they had not participated in training programs because they felt they did not need training (and the percentage is similar for both full-time and part-time casual employees).

The corresponding figure for permanent workers is somewhat larger – with 52 per cent of full-time and part-time permanent workers indicating a lack of need for training. Thus perceptions of the need for training differ little among these two groups of workers, and if anything, casual employees actually perceive a greater need for training than permanent workers.

When the remaining reasons for not participating in training are compared, the data indicate that compared with casual workers, work-related reasons were more important barriers to training for permanent workers – 24.4 per cent of permanent workers compared with only 15.7 per cent of casual workers indicated that work-related issues were the main reason they had not participated in training.

However, the figures in table 12 also show that this difference is largely a function of differences in hours worked – both permanent and casual part-time employees were less likely than their full-time counterparts to give work-related barriers as the main reason for not participating in training.

Further, overall, few employees indicated that lack of employer support was the main reason they did not participate in training in the past year, with casual employees actually less likely than permanent workers to give this as a reason (3.5 per cent of permanent workers compared with 1.4 per cent of casual workers).

Table 12: Main reason for not attending training, 1997 (% of wage and salary earners who had not attended training in previous 12 months)

	Permanent		Casual	
	Full-time	Part-time	Full-time	Part-time
No need for training	52.0	51.8	47.1	48.3
Work-related reasons	26.2	14.9	22.2	12.7
Too much work or scheduling of work and training	12.7	5.4	12.4	4.3
Little difference to work prospects, or not required for job or employer	9.9	6.1	8.2	7.1
Lack of employer support	3.6	3.4	1.6*	1.3
Training-related reasons	3.6	2.5	2.7	3.2
Lack of information or no suitable courses	2.5	1.4	1.8	2.0
No places available or not offered a place	1.0	0.9	0.6*	1.2
Lack of qualifications or pre-requisites	0.1*	**	**	**
Personal or family reasons	5.4	14.6	8.9	17.1
Lack of interest or motivation	3.6	3.7	4.9	5.4
Own ill health, injury or disability	0.9	2.3	1.6	2.5
Caring for family members, or children too young	0.9	8.5	2.3	8.6
Childcare problems or lack of suitable childcare	**	**	**	0.7*
Other reasons	12.8	16.2	19.0	18.7
No time	6.6	9.5	7.1	7.9
Too expensive, financial reasons or no money	1.6	1.9	4.3	4.2
Location of establishment or transport difficulties	0.4	0.7*	1.3*	0.5*
Lack of literacy or numeracy skills, or lack of English proficiency	0.6	0.5*	0.7*	0.4*
Other	3.6	3.6	5.5	5.6

Notes: * Relative standard error is between 25 and 50 per cent and thus estimate maybe unreliable.
** Relative standard error is too high (greater than 50 per cent) to produce a reliable estimate.
Source: *Unpublished data from the ABS 1997 Survey of Education and Training Experience*

Further, table 12 reveals that casual employees were more likely to indicate that personal or family reasons was the main reason for not participating in training (14.6 per cent compared with 6.8 per cent of permanent employees). To a large extent this again reflects differences in the number of hours worked, as part-time workers were more likely than their full-time counterparts to state personal or family reasons as the main barrier to training.

Casual employees, regardless of whether they were full-time or part-time workers, were also more likely to state that finance was the main reason for not participating in training (4.2 per cent of casual employees versus 1.7 per cent of permanent workers).

Earlier in this chapter, we suggested that one reason that may explain why casual workers are less likely than permanent employees to participate in firm-provided formal training is that they may be less motivated to participate in training, particularly firm-specific training. The data

presented above do not appear to be consistent with this hypothesis. However, a strict test of this hypothesis would require distinguishing that training component which is firm-specific and that which is not. A crude proxy for such a distinction would be to consider training that is supported by the employer separately from that which is not supported by the employer. Unfortunately, the questions in the 1997 survey on reasons for not attending training apply broadly to the attendance at any training courses, and thus do not make the required distinction.

Nonetheless, the 1993 ABS training and education data do allow us to look at this issue – in the 1993 survey, respondents were asked to indicate the main reason for not participating in first, training courses in work time (i.e. employer-supported training), and second, training courses in their own time, at their own expense (i.e. non-employer-supported training). The percentage who indicated that the main reason for not attending training was that they had no need for that type of training, or that such training would make little difference to their work prospects, is reported in table 13.

Table 13: Perceived lack of need for training by type of training and employment status, 1993 (% of wage and salary earners who had not attended the specified type of training in previous 12 months)

	Permanent	Casual	Total
No need for training in work time	29.7	36.0	31.6
No need for training in own time, at own expense	32.7	33.4	32.8

Source: *Unpublished data from the ABS 1993 Survey of Training and Education Experience*

As expected, the results show that a greater percentage of casual workers than permanent workers felt they had no need for training during work time. In contrast, similar percentages of permanent and casual staff said they did not need training in their own time. These results thus provide some support for our suggestion that the motivation of casual workers to undertake training depends on the type of training under consideration. Casual employees are more likely than permanent employees to say they do not require employer-provided training that is provided within work time, and thus in turn, would tend to be more firm-specific. However, they are no more likely than permanent workers to say they do not need non-supported training in their own time, which is much less likely to be firm-specific.

In summary, it seems that in many regards, the perceptions of casual employees to barriers to training are quite similar to that of permanent employees. Indeed, when part-time and full-time work status is taken into account, very few differences are observed.

Earlier in this report, we suggested that both employers' provision of training and employees' motivation to attend training might explain remaining differences in the likelihood with which casual and permanent workers participated in training. The results presented in this section provide no support for the first of these – data which compared employee responses on main reasons for not participating in training do not reveal that casual employees perceive lower levels of support from employers than do permanent staff. However, this does not necessarily mean such inequity does not exist. Instead, it means employees do not see it – at least not as the main reason for not participating in training. Again, this may be due to lower expectations on the part of casual workers towards receiving employer support for training.

We do find some support, however, for the suggestion that casual employees are less motivated to attend training, but only when employer-provided training is considered. Casual employees did not differ from permanent employees in the likelihood with which they said they did not require general training in their own time.

4 Outsourcing and training effort

Outsourcing raises the question of who is responsible for training.

On the one hand, the reliance on outsourced workers is entirely rational behaviour in circumstances such as when the skills required are not firm-specific or are specific to tasks that are only an irregular feature of business activity.

On the other hand, firms may use outsourcing to avoid the cost and responsibilities associated with providing training to employees for more regular firm-specific tasks, thus reducing the incentive for the firms and workers alike to participate in training. It is generally accepted, for example, that part of the explanation for the lower levels of training in small firms is the absence of well developed internal labour markets (Wooden 1996b). Without obvious career paths and internal promotion structures, the incentive for workers to invest in the acquisition of firm-specific skills is relatively low.

Shifting training responsibilities to specialist labour hire and contractor companies may have a similar dampening effect on training incentives. Certainly, the incentive for labour hire companies to provide training will be relatively weak given that the likelihood of a well-trained worker being 'poached' by the hiring organisation is high. This is exacerbated further by the impermanent and short-term nature of many contracts.

Two key questions thus emerge:

- Are contractors used in skill-intensive activities, and if so, from where and how are the necessary skills sourced?
- Does reliance on outsourcing affect training activity within firms?

Training requirements of contractors

At least two previous studies have been conducted which throw some light on the issue of how important skills are for contractor-based employment.

The first is the NILS survey of workplaces (see appendix A). That study, reported in Wooden and VandenHeuvel (1996a, 1996b), asked managers at firms that made use of contractors to rank the importance of different reasons for using contractors. The key table of results is reproduced here as table 14.

As can be clearly seen, the reason ranked to be of greatest importance by the largest proportion of respondents, was the need to access specialised skills not available in-house. Indeed, almost 60 per cent of respondents indicated that this reason was of large importance. Such responses are strongly suggestive of the importance of skills for at least a substantial proportion of the contractor workforce.

Different findings, however, are suggested by a recent KPMG Management Consulting (1998) survey of labour hire companies.

In that study, just 5 per cent of the 57 respondent labour hire firms – from an initial sample of 200 – stated that the 'main' reason firms used their labour hire services was the need for specialist skills. Instead, the reason most frequently provided was the need to cope with periods of peak demand (also found to be of large importance in the NILS survey). The findings from this survey would thus appear to conflict with the results of the NILS study.

Table 14: Reasons for using contractors 1994 (% of workplaces)

Reason	Of no importance	Of little importance	Of some importance	Of large importance
Capacity reasons				
To cope with periods of peak demand	13.2	8.8	33.6	44.5
Specialisation reasons				
To access specialised skills not available in-house	8.5	7.2	25.9	58.5
To deal with one-off tasks	13.7	8.8	43.1	34.4
To access specialised equipment not available in-house	47.3	19.3	17.6	15.8
Labour cost reasons				
To reduce labour costs	38.2	28.0	25.2	8.6
Cheaper to use contractors than to do the work in-house	45.6	20.1	26.4	7.9
To avoid costs of complying with government regulations and charges	77.5	14.2	6.3	2.1
Other reasons				
To get around the imposition of ceilings on staff numbers	58.1	16.0	19.2	6.6
To enable work outside normal hours	56.0	20.0	18.9	5.1
To increase the job security of the permanent employees	66.1	18.7	11.1	4.2
To overcome recruitment problems	52.0	23.2	20.9	3.9
Contractors usually more productive than in-house employees	60.8	19.0	16.7	3.5
To reduce union influence	78.7	12.3	6.0	3.0
Workers prefer to work on contract	72.6	18.7	7.1	1.6

Source: *Wooden and VandenHeuvel (1996a, p.12)*

It needs to be noted, however, that unlike the NILS study, the KMPG survey was of labour hire firms, not the client firms themselves (although case-studies were also conducted at four client firms).

Further, this study was restricted to firms supplying specialised skilled (trade-based) workers. Indeed, the majority of labour hire firms that participated in this study focussed their recruitment on trades-qualified workers, with qualifications the most highly ranked selection criteria. Moreover, just over half reported difficulties in recruiting appropriate workers, a sure sign that the desired workers have skills that are in short supply. Overall, therefore, it would be difficult to conclude on the basis of the KPMG study that skills are not of importance to the contractor workforce.

Possibly the most interesting findings from the KPMG study (including results from a series of case-studies in addition to the survey of labour hire firms), however, concern the role of training. Here the conclusions are less equivocal.

> *"Labour hire firms rely upon the pool of skilled people available in the labour market, and are not large providers of formalised training . . .*

There is little evidence of a recognition that the longer term development of the skills pool is a responsibility of individual labour hire firms . . ."

(KPMG Management Consulting 1998, pp.1–2).

The available evidence, patchy as it is, suggests that a large proportion of the contractor workforce are employed in skill-intensive areas, but the necessary skills are largely sourced from the wider labour market. Certainly, labour hire firms do not appear to invest much in training. Further growth in outsourcing may, therefore, be constrained by skill shortages. Alternatively, growth in outsourcing, at least in skill-intensive activities, may require a shift in trained labour away from the security of internal labour markets, which in turn may fuel further demand for outsourced labour.

The impact of outsourcing on in-house training programs

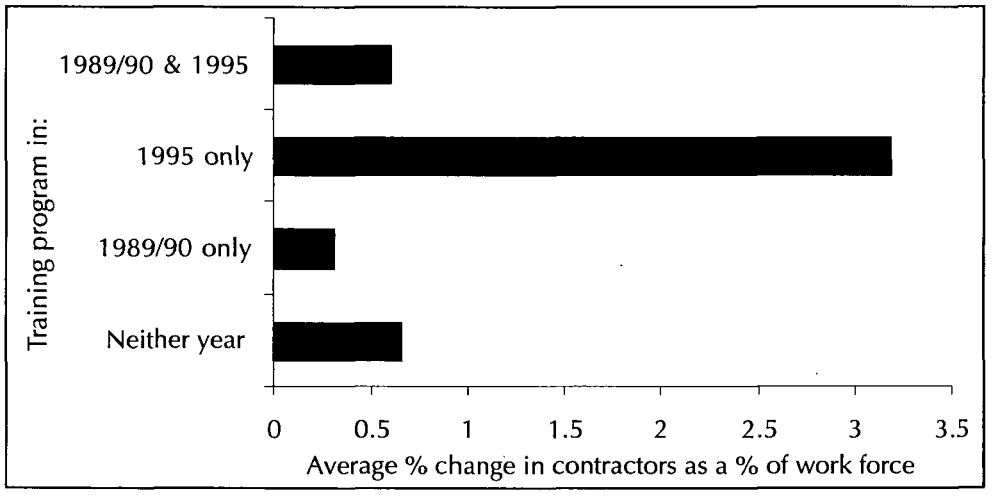
The second question examined here is whether reliance on outsourcing has any effect on training activity within firms. If outsourcing is used as a means of reducing training costs, for example, then we might expect a decline in the level of training activity undertaken within the firm.

Ideally, answering this question requires longitudinal data. That is, data are needed which allow changes over time in training activity within firms to be correlated with changes in the extent of use made of contractors. The only data source that we are aware of that contains longitudinal data, and includes information on both the extent of training and outsourcing, is the panel component of the main AWIRS sample. The training variable that is available, however, is not very sophisticated – a simple binary variable indicating the presence or absence of any formal program of instruction for employees that was intended to develop skills – and hence can provide, at best, only a crude indication of any relationship between changes in outsourcing levels and training activity.

A summary of these data is provided in figure 1. This figure suggests that, if anything, increases in outsourcing have been associated with the introduction of training programs. At those workplaces where a training course did not exist in 1989/90 but did in 1995, the average share of contractors in total employment rose by over 3 percentage points. In contrast, at all other workplaces (bearing in mind that the AWIRS sample is restricted to workplaces with 20 or more employees, and to be included in the panel the workplace had to have been in existence for at least five years), the rise in the contractor share was only around half a percentage point. In other words, far from facilitating reductions in training activity, growth in outsourcing appears to be associated with an expansion in training. Note, however, that large standard errors are attached to the numbers reported in figure 1, and hence the differences are only weakly significant. Furthermore, this simple analysis does not prove causation.

Despite these concerns, it is nevertheless comforting that results from the analysis of the cross-sectional AWIRS employee data are consistent with the findings reported in figure 1. Specifically, our measure of the share of contractors in total employment was incorporated as an additional independent variable into the logit model of training incidence described in section 3. The results from this procedure indicate that, with all other factors held constant, outsourcing and training provision are positively correlated – that is, employees in firms which make greater use of outsourced labour were more likely to indicate having participated in training. The strength of this association, however, was quite weak (significant only at the 10 per cent level). Its magnitude was also quite small – an employee at a workplace where contractors represented 8.2 per cent of total labour requirements (the average among workplaces which used contractors), was estimated to have a probability of receiving formal training that was just 3 per cent higher than a comparable employee at a workplace where contract labour was not used.

Figure 1: Changes in outsourcing activity and the presence of formal training programs, 1989/90 and 1995



Note: Data have been weighted to reflect the total population of surviving workplaces (with 20 or more employees).

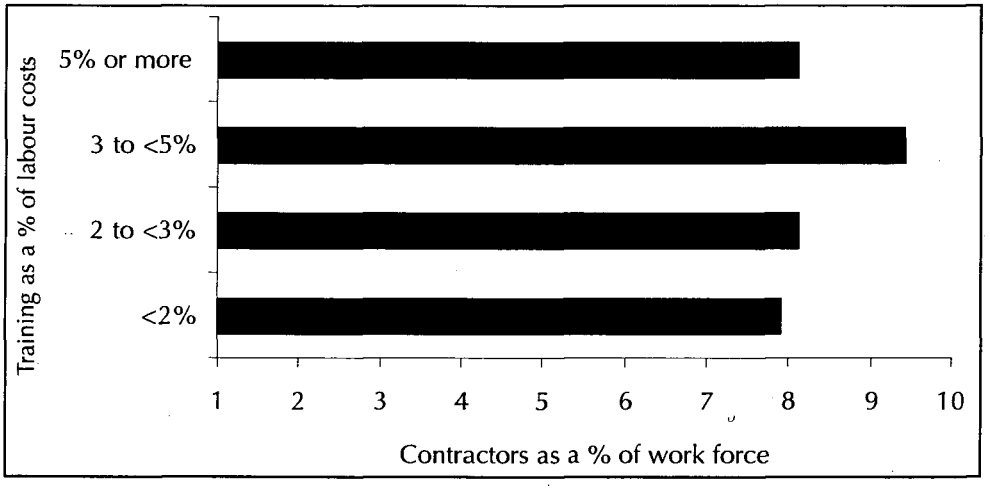
Source: *AWIRS panel survey*

The final piece of evidence of some relevance comes from the NILS workplace survey of contractor use.

Apart from collecting extensive information on the extent and nature of outsourcing, the NILS survey also collected data on training costs as a percentage of total labour costs. Correlations between this variable, and the percentage of the workforce who were contractors, suggest no obvious relationship. As reported in figure 2, the share of contractors in the total workforce is largely invariant to the level of training expenditure. That is, no association was found that suggested that the increased use of contractors led to firms spending lesson training.

In summary, no evidence could be found in any of the data sets we considered that outsourcing has a deleterious impact on the amount of training received by employees. Instead, if anything, our results suggest that greater use of contractors is associated with an increase in training effort (although the strength of this association appears to be quite weak).

Figure 2: Relationship between use of contractors and training expenditure, 1994



Source: *NILS survey of use of contractors*

5 Conclusions

THE NATURE OF the workforce has changed dramatically in recent decades. One example of this change is the movement towards the use of casual labour rather than permanent labour, with ABS data indicating an 11 percentage point increase in the casual employment share between 1984 and 1998.

Although not quite as dramatic, another example of workforce change is the increased use of outsourced (or contract)labour, with AWIRS data suggesting that the share of this form of labour in total employment grew by just over one percentage point between 1989 and 1995.

While there is general agreement that we have witnessed growth in both of these two forms of working arrangements in the last decade, there is far less agreement on the actual levels of casualisation and outsourcing at any point in time. An important source of this disagreement lies in differences in definitions. It is very clear that many of the workers the ABS defines as 'casual employees' have jobs which involve relatively long job tenure and regular working hours, characteristics not normally associated with casual employment.

However, even if the ABS definition is accepted, large discrepancies can arise. For instance, estimates of the extent of casual employment in 1995 using ostensibly the same definition vary from just 12 per cent (using AWIRS employee data) to 24 per cent (using ABS data). We suspect the actual level of casual employment (as defined by the absence of leave entitlements) lies somewhere between these two estimates. ABS estimates of casual labour will tend to be biased upwards due to the classification of many owner managers of incorporated businesses as casual workers, while AWIRS estimates will be biased downwards because of the exclusion of the agriculture sector and small workplaces.

Estimates of the extent of the use of contract labour also vary considerably, with percentages ranging from 4.2 per cent (Brosnan & Walsh 1998) to 10.3 per cent (Wooden & VandenHeuvel 1996a). Unlike casualisation, however, this is a topic which remains relatively under-researched, and hence it is far more difficult to reach judgements about the relative merits of different estimates.

When the characteristics of casual workers were examined, one of the most interesting findings relates to job tenure. While it is widely assumed that casual employees are short-term employees, AWIRS data indicate that the average job tenure of these so-called casual employees was actually just over three years for both men and women. Further, 16 percent of casual employees had been working at their current workplace for over five years. Thus, while it is true that the average tenure of permanent workers is greater than that of casual employees – their average tenure was about seven years – the average casual worker cannot be thought of as a short-term employee.

One of the central tasks of this report was to examine the relationship between casual employment status and access to training. Consistent with previous research, the analysis reported here finds that casual employees are much less likely than permanent employees to participate in formal training activities. Specifically, ABS data (the best source for detailed information on access to training) collected in 1997, reveals that casual employees were far less likely than permanent workers to have participated in both external and in-house training programs. The difference in in-house training was particularly marked – less than half as many casual workers than permanent workers had undertaken in-house training in the year prior to the survey.

It was also found that the difference in the likelihood with which casual employees and permanent employees participate in training was not simply due to differences in factors

such as hours worked, types of jobs held or workplace characteristics. Instead, our analyses indicate that even when a range of personal and job-related characteristics are taken into account, permanent employees were one and a half times more likely than casual employees to have participated in formal employer-provided training activities.

However, we cannot necessarily conclude from these results that casuals are at a disadvantage in the training process, and that they are falling behind permanent workers in terms of accessing skills. Rather, a number of the results presented in this report point to a type of 'substitution' effect, with low levels of participation in employer-supported training by casuals offset in part by relatively high levels of participation in external training that was not provided by their employer. As well, among those who did participate in external training, casual workers were more likely to spend a greater number of hours during the year undertaking such training. Thus, to a certain extent, casual employees appear to be compensating for the lack of firm-provided training by undertaking more training in their own time and at their own expense.

The question that we are unable to answer, however, is whether this is by choice, or due to the lack of the option of firm-provided training. On the one hand, it is commonly perceived that employers feel less of an obligation to provide training to causal workers than permanent workers (e.g. Curtain 1996), and thus the offers for training may not be as plentiful for casual workers. On the other hand, because there is more uncertainty about the job security of casual employees, casual employees may see little potential benefit from participating in job-specific training. Instead, it seems quite logical for these employees to be more likely to seek training outside of the realm of their current workplace, as such training would provide them with skills that could be more easily transferred among employers.

The critical factor here, then, is what are the attitudes and motivations of the employers and the casual employees towards offering and participating in training, respectively. Multivariate analyses presented in this report suggest that such motivational differences – rather than differences in the characteristics of the casual workers and their jobs – are the key to gaining a better understanding of why casual employees are less likely to participate in employer-provided training. Unfortunately, very limited information is available on motivational differences. No information exists, to our knowledge, which would allow us to examine the relative importance of employers' attitudes versus employees' attitudes in explaining why casual workers are less likely to access employer-supported training.

The only attitudinal data of note pertains to the main reasons offered by employees for not undertaking training (by those who had not participated in training in the previous year), and is available from the ABS surveys of training and education experience. The analyses of these data suggest two important conclusions.

First, casual employees were no more likely than permanent workers to indicate that they had not participated in training due to the lack of employer support (and indeed, only a small percentage of employees offered this as the main reason for not participating in training). While this may suggest, then, that casual employees are no less likely to be offered training by their employers, and thus that employers' attitudes are not an important barrier to the receipt of training by casual workers, alternative explanations may be more plausible. For example, the lack of employer support for their training may be one of a number of barriers that casual workers face in gaining training, but not the main one. Further, if casual employees do not expect employer support for training (e.g. due to the workplace culture), they may not perceive this reason as a barrier to their participation in training, even although they may be less likely to receive such support.

The second conclusion relates to the desire of employees to undertake training. Existing studies on the link between casual employees and training suggested that casual employees were less motivated than other employees to participate in training, and that this could potentially help explain why their participation in formal training programs was lower (Curtain 1996; Wooden 1996a). In contrast, research presented in this report indicates that

this pertains only to training that was offered by the employer during work time. That is, while casual employees were more likely to explain their lack of attendance in employer-provided training during work time as being due to the lack of need for such training, when we examined reasons for not participating in non-employer-provided training, casual employees were no more or less likely than permanent employees to say they did not need such training. These results thus, again, suggest that casual workers may find they gain more valuable skills from training that is not firm specific – and thus generally not employer supported – than from employer-supported training. Further, the results indicate that the motivation to participate in training is not necessarily lower among casual employees – instead, it is only lower when firm-specific training is the only type of training on offer.

The final key task of this report was to examine the relationship between outsourcing and training, with the main issue being whether employers are making use of contract labour to avoid the need to train their own employees.

Clearly, longitudinal data would provide the best information with which to test this issue, with change over time in the use of contractors evaluated against change over time in the amount (and nature) of training offered to employees. While one available data source (AWIRS) provides us with longitudinal data, the available measure of training effort is weak. Nonetheless, results from the analysis of this data set, as well as data from various cross-sectional data sets, provide no support for the notion that the use of contract labour results in a lowering of the training effort of firms.

As noted in the introduction, the main aim of this report was to set the scene for further research by reporting on what existing data sets can tell us about trends in casual and contract labour, and about the relationship between the use of these two forms of labour and training.

Clearly, one of the key conclusions that can be derived from this report is the need for more research. As it stands now, our understanding of the links between training and greater use of casual and contract labour are rudimentary at best. Further research could take a wide number of different directions. Examples of issues where additional research is required include:

- the importance of employee attitudes and preferences in determining training outcomes
- employee expectations of training and the impact of employment status on such expectations
- the role of employer attitudes and behaviour in determining training outcomes;
- the measurement of the extent of outsourcing and its consequences for employment composition
- the consequences of increased outsourcing for training, and especially the issue of how the training requirements of the outsourced workforce are being met

Most importantly, this study has highlighted the need for both case-study research and customised survey research that is better targeted on the issues of interest. It is quite clear that existing data collections are very limited in what they can reveal about the relationships between training and employment arrangements.

Appendix A: Data sources

AWIRS

The Australian Workplace Industrial Relations Survey (AWIRS) was first conducted in 1989/90 and again in 1995. Both surveys are focussed on workplaces and have a common structure, although a number of new features were incorporated into the 1995 survey. Readers interested in obtaining more details about these data should consult Callus et al. (1991) and Morehead et al. (1997).

In both years, the scope of the survey was restricted to workplaces with five or more employees, with workplaces with five to 19 employees forming the small workplace sample, and workplaces with 20 or more employees forming the main sample. Workplaces operating in the agriculture, forestry and fishing industries and in the defence industry were also excluded from the scope of the survey. With these exceptions, the intention was to obtain a sample that, after the application of appropriate weights, would be representative of the total population of Australian workplaces with five or more employees.

The 1995 survey, but not the 1989/90 survey, also involved the provision of self-administered questionnaires to small samples of employees at each of the workplaces within the main sample of large workplaces. Permission to survey employees was granted at 1896 of the participating workplaces, or 95 per cent of the main sample. Employees to be surveyed were randomly selected by the interviewers, from a list supplied by management of all persons working at the workplace. Completed questionnaires were either collected by the interviewer about a week after distribution, or returned directly by mail. The aim was to achieve a self-weighting sample with the probability of selection for each employee being about one in one hundred. As reported in table A1, below, a total of 30005 questionnaires were distributed (about 16 per workplace).

Finally, in 1995 the opportunity was taken to select a sub-sample of workplaces from the 1989/90 'main sample' of large workplaces to be re-surveyed in 1995. This group of workplaces formed the panel sample. The principal advantage of panel data is that such data are much better suited to analysing change within workplaces. The panel is not, however, a random sample of participants in the first survey since it only includes firms that survived the period from 1989 to 1995. Some analysis of 'survivors' and 'deaths' is provided in Morehead et al. (1997, pp.48–51), and indicates that 'deaths' were more common among workplaces that were:

- small
- relatively young (less than two years old)
- part of a larger organisation
- part of a government business enterprise
- not performing well in 1990 (as indicated by low rates of capacity utilisation and negative rates of return on assets)
- already in the process of downsizing at the time of the 1990 survey

A key feature of the AWIRS was the high rates of co-operation from managers (and union delegates) at the selected firms. As shown in table A1, relatively few persons who were asked to participate refused. In 1989/90, for example, 87 per cent of all large workplaces and 90 per cent of small workplaces that were approached, and were deemed eligible for

inclusion in the survey, participated. The comparable response rates in 1995 were, at 79 and 87 per cent respectively – lower. Nevertheless, these rates of co-operation are still extremely high given the onerous requirements that participation in the AWIRS imposed.

Note that while the number of completed interviews within the large workplace samples in 1989/90 and 1995 numbered 2004 and 2001 respectively, rarely can all cases be used. This is the result of incomplete reporting. Perhaps the most important source of missing data is the Workplace Characteristics Questionnaire (WCQ). This was a self-completion questionnaire which was the source of, among other things, the key employment data, and was mailed to participating workplaces prior to interview. While the expectation was that these questionnaires would be collected at the time of interview, this was not always possible, and respondents were given the opportunity to return these questionnaires by mail, leading to some non-response (13 per cent in 1989/90 and 8 per cent in 1995).

Non-response was more of an issue with respect to the employee survey, with useable responses received from only 63.4 per cent of the sample. Nevertheless, this is still extremely high for a survey where participation was voluntary and where responses were returned via the mail.

Table A1: Summary of AWIRS response rates

	1989/90			1995		
	Contacts	Respon-dents	Response rate	Contacts	Respon-dents	Response rate
Small workplaces	389	349	89.7	1,235	1,075	87.0
Large workplaces						
Management interviews	2,300	2,004	87.1	2,547	2,001	78.6
Workplace characteristics survey	2,004	1,747	87.2	2,001	1,836	91.8
Union delegate[a]	1,222	1,138	93.1	1,168	1,086	93.0
Panel	–	–	–	780	703	90.1
Employees	–	–	–	30,005	19,023	63.4

Note: a Responses here relate to the senior delegate from the union with most members at the workplace.

ABS surveys of education and training experience

Beginning in 1989, the Australian Bureau of Statistics (ABS) has conducted a series of large, dedicated surveys on the training and education experiences of persons in Australia. The target population of the survey is persons aged 15 to 64 years who worked as wage and salary earners in the 12 months prior to survey, as well as persons aged 15 to 64 years who, at the time of the survey, were in the labour force, marginally attached to the labour force, or who were participating in education.

Data are collected on a range of training issues including:

- involvement in in-house and external training, on-the-job training, and educational study
- reasons for training
- perceived adequacy of training
- requirements for, and barriers to, training

As well, details are provided on employment characteristics (e.g. employment status, hours of work, casual versus permanent work status, occupation), socio-demographic variables (such as sex, age, marital status and place of residence), work history details, and some information on company for whom they work (e.g. firm size, sector, industry).

Thus far, three such surveys have been undertaken, the first in 1989, the second in 1993 and the most recent in 1997.

As described in ABS (1998a), the 1997 survey, called the Survey of Education and Training Experience, was conducted throughout Australia over a nine-week period in March, April and May. The survey was modelled on the two previous education and training surveys, but unlike these two surveys, also included in the target population persons aged 15 to 20 years who were still in secondary school. The effective sample size for the survey was approximately 13800 dwellings, which yielded about 22700 completed interviews.

NILS employer survey of use of contractors

In 1994, with funding from both the Australian Taxation Office and the Department of Industrial Relations, the National Institute of Labour Studies (NILS), embarked on a program of research, with the broad objective of examining the nature and extent of employment in Australia involving contracts for service. A key component of that research was a mail-out survey of employers.

questionnaire designed for this study was primarily concerned with the use of contractors and sought to identify, among other things:

- whether the firm used contractors
- trends over time in the use of contractors
- the number of contractors employed and the types of tasks in which they were used
- the reasons for the use of contractors
- characteristics of the contracting arrangement

Defining a contractor, however, is no simple matter, and indeed has been the source of substantial legal argument. Nevertheless, in order to operationalise this survey, establishing clear definitions was critical.

A contractor was therefore defined in this survey as:

An individual or company contracted by an organisation for a predetermined fee to provide a defined service for a specified period.

The survey also distinguished between three types of contractors, and provided the following definitions to respondents:

- *Independent contractors* – individuals who are self-employed or who are the only employee of a company they own. Also include home workers who are not on your company's payroll but work for your workplace. If the individual is contracted through a company which has more than one employee, that person should be treated as an employee of a contractor (see below).
- *Employees of contractors* – persons working at your workplace who are employees of a company (but not one they own) that has been contracted to provide a service.
- *Agency workers* – persons paid by a placement or employment agency while working at your workplace.

For clarification, it was also noted that:

- contractors (and their employees) will typically not appear on the organisation's payroll
- with the exception of contracted home workers, that the survey was only concerned with contractors who actually worked at the workplace

The sample was selected randomly – using commercially available databases maintained by Dun and Bradstreet – from a population of enterprises, both private and public, employing 100 persons or more. Organisations located in all States and Territories and operating in all industries were included.

The questionnaires were directed to senior human resources/personnel managers, although it was noted in the survey that respondents might find it necessary to consult with company records and other staff in order to complete all of the questions. While the target population for the survey was workplaces, the initial population from which the sample was selected actually comprised firms (and other employing organisations). The letter that accompanied the questionnaire therefore requested that if the firm had more than one location, the survey be forwarded on to a senior human resources or personnel manager at the largest workplace within the organisation. At organisations employing more than 5000 employees, multiple copies of the form were sent. Instructions were given to forward them to managers at the two largest workplaces in the case of firms employing between 5000 and 10000 employees, and at the four largest workplaces in the case of firms employing more than 10000 employees.

The final starting sample numbered 1634 workplaces, and comprised 1221 workplaces operated by private enterprises and 413 workplaces operated by public sector organisations. A three-month response period was allowed, after which 522 completed questionnaires had been received, giving a response rate of 31.9 per cent. While low, the response rate achieved was not unexpected and reflected a number of factors including:

- the sensitivities associated with the issue of contractor employment
- the difficulty many employers have in simply quantifying their use of contractors
- the possibility that some organisations which did not use contractors may have not responded because they regarded the issue as having little relevance to them
- respondent fatigue as a consequence of the increased pressures placed on managers to fill in forms and questionnaires from a wide range of sources

Appendix B: Results from regression analyses

Table B1: Logit estimates of models of the incidence of formal employer-provided training (figures in brackets are asymptotic t-ratios)

	All employees	Employment status	
	Permanent	Casual	
	(N=14 279)	(N=12 850)	(N=1429)
Constant term	0.325 (0.96)	0.217 (0.62)	0.954 (0.56)
Casual	–0.390*** (5.43)	–	–
Age [35–44 years]			
15–20 years	0.796*** (7.55)	0.842*** (6.32)	0.497** (2.02)
21–24 years	0.353*** (4.51)	0.400*** (4.72)	0.085 (0.34)
25–29 years	0.164** (2.47)	0.152** (2.18)	0.241 (0.95)
30–34 years	0.053 (0.87)	0.042 (0.66)	0.099 (0.40)
45–49 years	0.150** (2.32)	0.116* (1.72)	0.614** (2.30)
50–54 years	–0.062 (0.82)	–0.069 (0.89)	–0.140 (0.39)
55 years or more	–0.327*** (3.75)	–0.359*** (3.93)	0.291 (0.83)
Language other than English spoken at home	–0.077 (0.83)	–0.045 (0.46)	–0.403 (1.29)
Education [completed high school]			
Postgraduate degree or diploma	0.165* (1.87)	0.184** (1.97)	–0.050 (0.15)
Under graduate degree or diploma	0.282*** (3.78)	0.292*** (3.62)	0.453** (2.03)
Associate diploma or advanced certificate	0.044 (0.59)	0.074 (0.93)	-0.329 (1.35)
Skilled vocational qualifications	–0.006 (0.08)	–0.009 (0.12)	0.122 (0.41)
Basic vocational qualifications	0.185* (1.87)	0.171 (1.64)	0.262 (0.78)
Some secondary school	–0.029 (0.55)	–0.037 (0.64)	0.028 (0.18)
Primary school	–0.107 (0.82)	–0.129 (0.93)	0.084 (0.20)
Female	–0.039 (0.74)	–0.045 (0.78)	–0.087 (0.56)
Overseas born in English-speaking country	–0.043 (0.74)	–0.033 (0.54)	–0.125 (0.55)
Overseas born in non-English-speaking country	–0.103 (1.55)	–0.106 (1.51)	–0.003 (0.01)
Aboriginal or Torres Strait Islander	–0.092 (0.55)	0.021 (0.12)	–1.009 (1.62)
Disabled	–0.126* (1.85)	–0.133* (1.87)	0.012 (0.04)
No. of dependent children aged < 4 years x female	–0.204*** (2.86)	–0.196*** (2.47)	–0.314* (1.71)
No. of dependent children aged 5–12 years x female	0.072 (1.59)	0.064 (1.26)	0.135 (1.18)
No. of dependent children aged 13 years or more x female	0.023 (0.56)	0.023 (0.48)	0.050 (0.51)
No. of dependent children aged < 4 years x male	–0.039 (0.89)	–0.038 (0.84)	–0.003 (0.01)
No. of dependent children aged 5–12 years x male	0.004 (0.12)	0.007 (0.20)	–0.253 (1.27)

No. of dependent children aged 13 years or more x male	0.077** (2.11)	0.070* (1.87)	0.387 (1.48)
Fixed term contract	–0.123* (1.77)	–0.136* (1.85)	0.126 (0.46)
Union member	–0.064 (1.46)	–0.061 (1.30)	–0.119 (0.79)
Tenure (years)	–0.045*** (5.87)	–0.037*** (4.71)	–0.149*** (4.80)
Tenure squared (x102)	0.112*** (4.15)	0.093*** (3.32)	0.337*** (2.89)
Hours worked	0.004** (2.29)	0.003 (1.53)	0.011** (2.17)
Organisational status [private commercial]			
Public commercial	0.147* (1.66)	0.086 (0.92)	1.007*** (3.03)
Public non-commercial	0.116 (1.39)	0.095 (1.08)	0.668* (1.91)
Private non-commercial	0.310*** (3.35)	0.327*** (3.25)	0.561** (1.97)
Foreign owned	0.247*** (4.10)	0.257*** (4.10)	0.077 (0.31)
Workplace size(x 104)	–0.010 (0.01)	–0.070 (0.07)	–0.214 (0.05)
Workplace size squared (x 107)	–0.514 (1.55)	–0.501 (1.44)	0.118 (0.84)
Firm size [< 100 employees]			
100–499 employees	0.329*** (5.24)	0.313*** (4.64)	0.555*** (2.70)
500–999 employees	0.407*** (5.15)	0.392*** (4.66)	0.721*** (2.61)
1000–4999 employees	0.563*** (8.22)	0.568*** (7.74)	0.584** (2.49)
5000–9999 employees	0.728*** (7.66)	0.710*** (7.11)	0.679* (1.71)
10 000–19 999 employees	0.667*** (7.25)	0.648*** (6.63)	1.080*** (3.18)
20 000 employees or more	0.370*** (4.47)	0.374*** (4.18)	0.572** (2.09)
Skill requirements[3–12 months]			
< 1 week	–0.353*** (3.88)	–0.307*** (3.10)	–0.331 (1.19)
1–4 weeks	–0.277*** (5.19)	–0.285*** (5.01)	–0.073 (0.40)
1–3 months	–0.108** (2.24)	–0.117** (2.30)	–0.014 (0.08)
> 1 year	0.022 (0.33)	0.031 (0.44)	–0.081 (0.22)
Occupational composition of workforce [% managers]			
% professionals	–0.103 (0.34)	0.182 (0.58)	–4.502*** (2.97)
% para-professionals	0.107 (0.38)	0.204 (0.69)	–1.990 (1.41)
% clerks	–0.229 (0.82)	–0.092 (0.32)	–2.136 (1.52)
% sales and personal service workers	0.030 (0.11)	0.149 (0.52)	–2.504* (1.89)
% tradespersons	–0.060 (0.22)	0.107 (0.38)	–3.308** (2.31)
% plant and machine operators and drivers	–0.265 (0.99)	-0.036 (0.13)	-4.241*** (3.13)
% labourers and related workers	–0.209 (0.80)	–0.015 (0.05)	–3.084** (2.33)
Industry [manufacturing]			
Mining	0.452*** (3.96)	0.498*** (4.26)	–0.660 (0.99)
Electricity, gas and water	0.513*** (3.97)	0.546*** (4.12)	1.020 (1.09)
Construction	–0.174 (1.39)	–0.171 (1.33)	0.054 (0.08)
Retail trade	0.114 (0.95)	0.058 (0.45)	–0.168 (0.40)
Wholesale trade	–0.098 (0.92)	–0.040 (0.37)	–1.074** (2.25)
Transport and storage	0.093 (0.84)	0.083 (0.73)	0.435 (0.86)
Accommodation, cafes and restaurants	0.172 (1.23)	0.365** (2.10)	–0.285 (0.75)
Communication services	0.424*** (2.76)	0.493*** (3.09)	–0.092 (0.12)

Finance and insurance	0.325*** (2.77)	0.390*** (3.23)	–0.917 (1.19)
Property and business services	0.164 (1.54)	0.198* (1.77)	–0.645 (1.42)
Government administration	0.422*** (3.49)	0.475*** (3.78)	–0.842 (1.40)
Education	0.124 (0.79)	0.164 (0.99)	–0.412 (0.56)
Health and community services	0.162 (1.30)	0.096 (0.72)	0.317 (0.68)
Culture and recreational services	–0.096 (0.77)	–0.104 (0.72)	–0.457 (1.15)
Personal and other services	–0.026 (0.20)	0.014 (0.10)	–0.491 (1.03)
Log-likelihood	–8782.5	–7836.9	–851.9
Chi-squared	1273.3	1137.4	268.8
Cragg-Uhler R-squared	0.116	0.116	0.229
Prediction success (%)	66.83	67.67	66.41
Reduction in prediction error (%)	28.96	29.93	32.43

Notes: 1 The dependent variable is a dichotomous variable, indicating whether the worker had participated in any work-related training provided by the employer during the previous 12 months. Persons indicating that training was 'not relevant' have been treated as not having received training.

2 Although not reported, all equations also include 49 occupation dummies.

3 *, ** and *** indicates statistical significance at the 10, 5 and 1 per cent levels, respectively, in a two tailed test.

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Endnotes

[1] Persons who are unsure of their entitlements are treated as not having any.
[2] Dawkins and Norris (1990) reported an upper-bound estimate of 13.3 per cent for 1982, based on data from the Alternative Working Arrangements Survey conducted by the ABS in that year. This figure is an upper bound estimate because data were not collected from persons who worked less than ten hours each week, and Dawkins and Norris assumed that all workers in this category were casuals.
[3] This calculation was based on a simple time-series equation using annual data for the period 1984 to 1997, where the casual employment share was specified as function of the part-time employment share, the female employment share and a time trend. Further, to ensure predictions were in the feasible range, a log-odds transformation was applied to the dependent variable.
[4] The lower estimate in the employee data may partly reflect the presence of a large number of missing observations on the questions concerning entitlements to paid sick leave and paid holiday leave (even although a 'don't know' option was provided). Treating all missing cases as casuals would cause the casual share of employment in the employee data to rise to 14.8 per cent.
[5] See ABS, Labour Force Australia, July 1997, ABS cat.no.6203.0.
[6] The sample used in the Brosnan and Walsh (1998) study involved an initial selection of 5200 Australian workplaces (and 5200 workplaces in New Zealand). Of these, useable responses were received from 1414 Australian workplaces.
[7] The greater representation of women in the AWIRS data (compared with the ABS data) is mainly a function of the exclusion of workplaces with fewer than 20 employees n the AWIRS—women are relatively less concentrated than men in small firms (and, therefore, in small workplaces).
[8] Further analysis of more disaggregated occupation data revealed that the overwhelming majority (90 per cent) of these casual sales employees were employed as sales assistants, as cashiers and tickets salespersons, or in the miscellaneous salespersons category (especially bar attendants and waiters/waitresses).
[9] For employees aged 25 years and over, mean job tenure was as follows: male permanent, 7.9 years; male casual, 4.7 years; female permanent, 6.1 years; and female casual, 4.3 years.
[10] Managers were asked to indicate the extent to which they agreed or disagreed with the following statements: i) 'This organisation devotes considerable resources towards having a corporate ethic and culture at this workplace', and ii) 'This organisation currently devotes considerable resources to the management of this workplace's human resources'. Responses were scored on five-point scale and the index has a reliability coefficient (Cronbach's alpha) of 0.58.
[11] Note that since Wooden and Hawke (1998) use pooled data from the two AWIRS cohorts, they were unable to include the HRM index in their list of explanatory variables.
[12] Survey results on the extent of outsourcing are also presented in Benson and Ieronimo (1996). The sample size for that study however, was extremely small (n=42), the key variable provides no indication of the significance of outsourcing within the firm, and the analysis of the data does not even indicate over what length of period outsourcing activity is being measured.
[13] This survey involved an effective sample of 2752 households, with completed questionnaires obtained from 2291.
[14] From a starting sample of 1634 businesses, completed responses were received from 522 workplaces.
[15] Morehead et al. (1997, p.46) cite a figure of 6.5 per cent for 1995. This, however, is the number of outsourced workers as a ratio of the number of employees.
[16] ABS labour force survey data on total wage and salary earner (or employee) employment over the period August 1989 to August 1995 indicates a rate of growth of just 0.9 per cent per annum.
[17] A likelihood ratio test for the equality of coefficients ($X2=187.31$ at 5 degrees of freedom) was significant at the $p<0.01$ level.
[18] The predicted probability that a permanent worker received training was 65 per cent, compared with 54 per cent for a casual employee.
[19] The decomposition method used is analogous to that proposed by Farber (1990) and used in Miller (1994). For a more detailed explanation of the method see Miller (1994, p.553).
[20] The number of hours spent on external training by those who participated in external training was: permanent full-time workers, 36 hours; casual full-time workers, 69 hours; permanent part-time workers, 40 hours; and casual part-time workers, 70 hours.
[21] According to data from the NILS survey discussed in greater detail, over two-thirds of those hired on a contract basis have fixed-duration contracts of less than 12 months duration.
[22] Just over 90 per cent of respondents indicated that at least some use had been made of contractors during the 12 months prior to the survey date.
[23] Many of the original selections had to be discarded because: workplace closure, the workplace was the inappropriate size, or the workplace was duplicated in the sample frame. In 1989/90, the number of ineligible contacts in the large workplace sample represented 27 per cent of all contacts. In 1995, the comparable figure was 31 per cent.
[24] Fortunately, during the interview with the general workplace manager, respondents were again asked to approximate the total number of employees on the payroll. Thus, information on total workplace size is available for all cases.

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