

# **The Characteristics of Casual and Fixed-Term Employment: Evidence from the HILDA Survey\***

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## **Abstract**

It is widely assumed that non-standard employment arrangements, and especially casual employment, involve employment conditions that are inferior to more traditional employment arrangements. This paper uses data from the first wave of the Household, Income and Labour Dynamics in Australia (HILDA) Survey to examine this issue. Specifically, data on job satisfaction are used to proxy job quality. These data suggest that workers do not necessarily see non-standard employment as undesirable. First, workers on fixed-term contracts are found to be much more satisfied with their jobs than other workers. Second, the lower levels of job satisfaction among casual employees are restricted to those working full-time, and even then the size of the effect is only marked among men.

## 1. Introduction

One of the most distinctive features of the Australian labour market is the high incidence of casual employment. While identifying workers with casual employment contracts is not a straightforward task, the Australian Bureau of Statistics (ABS) has for many years been collecting survey data on receipt of various types of employment benefits, which in turn has come to form the basis for generating estimates of casual employment. Specifically, casual employment has been equated with the absence of entitlement to both paid annual leave and paid sick leave. Using this definition, just over 27 per cent of all employees are estimated to have been employed on a casual basis (in their main job) in August 2002.<sup>1</sup> Moreover, these same data indicate marked growth in recent decades, with the rate of casualisation in 1984 being just under 16 per cent (Dawkins and Norris 1990, p. 164).<sup>2</sup>

For many academic commentators this trend towards increased casualisation is seen as an unfortunate by-product of many years of economic reform. Campbell (1996a), for example, argues that casual employees are typically without the legislative protections accorded other employees. He highlights the possibility that many casual employees are outside the coverage of the awards system or, when they are covered, are vulnerable to the evasion of award conditions. Moreover, he goes on to argue that even for those casual employees who are subject to effective regulation, they still enjoy few of the safeguards typically provided to non-casuals. Most often highlighted here is the greater job insecurity arising from casual employment, and indeed other forms of non-standard employment (Campbell 1996b, Burgess and Campbell 1998, ACIRRT 1999, Campbell and Brosnan 1999), though other negative aspects of casual employment, such as low pay, limited opportunities for career progression, unsatisfactory working hours, low levels of access to work-related training and low levels of union representation are also frequently mentioned (e.g., Romeyn 1992, Burgess 1996, Campbell 1996b). Quantitative evidence documenting these differences in the quality of jobs by employment status, however, is relatively scarce, and hence many writers simply take it as a given that casual employment is synonymous with inferior, sub-standard jobs. Watson (2000), for example, proposed that the casualisation rate be included as one indicator within a broader economy-wide measure of the quality of jobs in Australia.

Another key weakness in much of the research to date has been the tendency to think of employment as falling into one of two types – casual employment and permanent employment. However, as Campbell and Burgess (2001, p. 89) have observed, there is a third group of employees with a distinctive type of employment contract who do not fit easily into either of these two groups. This is the group of employees with fixed-term contracts. Since such employees often have entitlements to paid sick leave and paid annual leave they will mostly be assigned to the permanent employee group, yet on any objective criteria permanent employment status is exactly what this type of worker does not have. Researchers, however, have tended to ignore this distinction, though there are a number of notable exceptions (Hall, Harley and Whitehouse 1998, VandenHeuvel and Wooden 2000, Waite and Will 2002).

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<sup>1</sup> These data are regularly reported in ABS, *Employee Earnings, Benefits and Trade Union Membership, Australia* (ABS cat. no. 6310.0).

<sup>2</sup> The growth in the rate of casualisation has clearly slowed in recent years, with the casual employment share only one percentage point higher in 2002 compared with 1996, and virtually unchanged since 1998.

In this paper we present data from a new large national survey that, among other things, collected extensive information about job characteristics and employment experiences. A particular feature of these data that is much exploited in this analysis is a self-reported measure of employment contract status that distinguishes between three types of employment arrangements: fixed-term employment contracts, casual employment and permanent or ongoing employment. We thus use these data to document differences in the characteristics of workers in each of these three employment categories. We then go on to examine how and in what ways the quality of the employment experience varies for workers in the three groups. Particular emphasis is paid to variations across employment types in subjective measures of job satisfaction.

## 2. Previous Research

In the early 1990s a number of important studies appeared that were among the first to identify and recognise the importance of the growth in casual employment in Australia (Dawkins and Norris 1990, Lewis 1990, Romeyn 1992). These studies quantified the extent of casual employment, identified the industries and occupations in which it was concentrated, and posited possible explanations for the rising trend in its incidence. Subsequently the number of journal articles, reports and papers on the issue of casual employment in Australia has grown enormously. Despite this, relatively little serious attention has been paid to the nature and features of casual (and fixed-term contract) work and the quality of the jobs that are filled by casual employees. Even much of the case-study research that has been conducted on casual employment has tended to ignore issues relating to job quality and has instead focused on the reasons why employers use casual employment (and other types of 'non-standard' employment) and the factors that shape labour use strategies (e.g., Probert 1995, Whitehouse, Lafferty and Boreham 1997, Allan 1998, Weller, Cussen and Webber 1999). There are, of course, exceptions (e.g., Walsh and Deery 1997, Smith and Ewer 1999), but as a whole the case-study research remains unconvincing, partly because case-studies are by their nature selective, and partly because job quality is so badly measured.

One possible explanation for the dearth of research is that it is often taken for granted that casual employment must, almost by definition, be a type of employment of last resort that would not voluntarily be chosen by any rational individual. Nevertheless, survey data has long suggested that individual preferences are not necessarily so constrained, and that many casuals may actually prefer casual employment, possibly because they are attracted to the immediate cash awards provided by the pay loading that often accompanies casual employment.<sup>3</sup> Further, there is now growing recognition that the difference between the conditions of casual work and the conditions of permanent work, especially permanent part-time work, may not be as great as is usually presumed (e.g., Junor, Barlow and Patterson 1993, Whitehouse et al. 1997, Junor 1998).

Another explanation for the low level of research activity on this issue is the absence of appropriate data. The collection of survey-based data on any significant scale in Australia has mostly been left to the ABS. The ABS approach to both data collection and dissemination, however, means that, for the purpose of examining the relationship between employment

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<sup>3</sup> According to the Alternative Working Arrangements Survey conducted by the ABS in 1986, 58 per cent of casual employees were content with their employment status and thus did not indicate a preference for permanent work (see Dawkins and Norris 1990, pp. 162-163).

status and job quality, their data are generally far from ideal. First, the ABS has traditionally steered away from collecting subjective opinion-based information. As such, most ABS surveys about employment collect information about relatively objective job characteristics such as earnings, the number of hours worked and, though less frequently, duration of job tenure, but rarely much else. Second, the ABS has greatly restricted access to unit-record data, and hence often forcing researchers to rely solely on cross-tabulated data. This is a serious weakness given that it is widely recognised that the types of workers who fill casual jobs are very different from the types of workers who fill the non-casual jobs. There have, however, been exceptions. The various Surveys of Training and Education, for example, have been made available in unit record form and as a result it has been well established that casual workers are far less likely to participate in employer-provided training programs than non-casual employees, even after other individual and job characteristics are controlled for (Baker and Wooden 1992, Miller 1994, Miller and Mulvey 1994, VandenHeuvel and Wooden 1996, Wooden 1996).

Nevertheless, it was not until the 1995 Australian Workplace Industrial Relations Survey (AWIRS) data were released that researchers had access to a large national database that both enabled casual workers to be identified and included a range of measures of job quality.<sup>4</sup> Hall, Harley and Whitehouse (1998) were the first to exploit this feature of the data. They separated the workforce into six distinct categories based on hours of work (full-time or part-time) and contractual employment status (permanent, casual or fixed-term) and then examined how employees in each of these categories varied in their responses to questions about control over work, job satisfaction and a range of other work attitudes (e.g., with respect to fairness of pay, job stress, job insecurity and the like). On the basis of simple correlation coefficients it was concluded that contingent work (that is casual work) 'continues to be characterised by low pay, limited control and discretion, relative exclusion from workplace decision-making, a lack of task diversity and a high level of dissatisfaction with the amount of work provided by employers' (Hall et al 1998, p. 77). However, their results also demonstrated that, on average, casual workers actually report higher levels of overall job satisfaction and report more favourable responses on a range of other attributes such as fairness of pay and job stress.

This different interpretation is highlighted in the work of Wooden and VandenHeuvel (2000) and Wooden (2001a). Their broad approach was similar to Hall et al (1998) but they employed multivariate methods to control for basic worker characteristics, such as age, education, occupation, union membership and so on. Further, among those working full-time hours they also distinguished between those working standard hours and those working long hours. They reached strikingly different conclusions. Wooden (2001, p. 68) for example concluded '... that non-standard types of employment are characterised by both positive and negative attributes'. Perhaps more importantly, when assessing overall job satisfaction, their results suggested that it was not the casual distinction that matters so much but hours of work. For all three categories of workers, the part-time employees were at least 40 per cent more

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<sup>4</sup> These data though were still far from ideal for examining casual employment. First, the employee component of the study was restricted to employees of workplaces with 20 or more employees and excluded workplaces from the agricultural sector. These exclusions ensured that workplaces with a relatively high incidence of casual employment were under-represented. Second, within these workplaces casual employees were far less likely to be respondents to the employee survey (see Wooden and Hawke 1998, p. 87), giving rise to concerns about the representativeness of the sub-sample of casual employees.

likely to report being satisfied with their jobs than comparable employees working standard hours (defined as between 35 and 44 hours per week).

This more benign interpretation of the data is also supported in Hall and Harley (2000). Again on the basis of data from the 1995 AWIRS, they acknowledged that many of the casual and fixed-term contract employees have positive feelings about their jobs. Their main conclusion, however, was that casual and fixed-term contract employees are not homogenous groups, and that attitudes about jobs vary markedly across industry sectors.

Finally, in 2001 the Australian Centre for Industrial Relations Research and Training (ACIRRT) conducted its own random sample of Australia employees with a view to assessing quality of working life. They collected subjective data from a sample of 1001 employed persons on the degree of satisfaction and dissatisfaction with 14 different aspects of work. Initial findings from this survey are summarised in Considine and Callus (2002). Unfortunately, differences by employment type are not reported in any detail. Nevertheless, it is reported that the mean score on an index that combines all 14 items was not significantly different for permanent and casual employees. Indeed, the mean score was identical (7.1) for both groups.

Overall, recent survey data suggests that the 'bad job' tag that is traditionally attached to casual employment may not be deserved. Nevertheless, it is just as clear that more research is warranted. The data that have been used are often far from ideal, and more attention needs to be paid to ensuring that the marked differences that exist in the human capital endowments (and other characteristics) of the average casual employee and the average non-casual employee are taken into account.

### **3. The HILDA Survey Data**

The data used in this analysis come from the first wave of the Household, Income and Labour Dynamics in Australia (HILDA) Survey. Described in more detail in Watson and Wooden (2002), the HILDA Survey is based on similar studies conducted in both Germany and the UK (the German Socio-Economic Panel and the British Household Panel Survey respectively). The HILDA Survey thus involved the selection of a large nationally representative sample of households and then seeking interviews with members of those households. Specifically, a household interview was sought with at least one adult member. Individual interviews were then sought with all household members over the age of 15 years on the 30 June preceding interview. In addition to the collection of data through personal interview, all persons completing a personal interview were also given a self-completion questionnaire which they were asked to return, once completed, either by mail or by handing it to the interviewer at a subsequent visit to the household. Almost all of the interviews were conducted during the period between 24 August 2001 and 21 December 2001.

Households were selected into the sample by a multi-stage process. First, a random sample of 488 Census Collection Districts (CDs), based on 1996 Census boundaries, was selected from across Australia (each of which consists of approximately 200 to 250 households). Second, within each of these CDs all dwellings were fully enumerated and a sample of 22 to 34 dwellings randomly selected, depending on the expected response and occupancy rates within each area. Third, given that dwellings can contain multiple households, rules were devised for the selection of households within dwellings. These rules stipulated that where a dwelling contained three or fewer households, all such households should be sampled. Where there

were four or more households occupying one dwelling, all households had to be enumerated and a random sample of three households obtained (based on a predetermined pattern).

After adjusting for out-of-scope dwellings (e.g., unoccupied, non-residential) and households (e.g., all occupants were overseas visitors) and for multiple households within dwellings, the total number of households identified as in-scope was 11,693. Interviews were completed with all eligible members at 6872 of these households and with at least one eligible member at a further 810 households. The total household response rate was, therefore, 66 per cent.

Within the 7682 households at which interviews were conducted, there were 19,917 people. Of this group, 4790 were under 15 years of age on the preceding 30 June and hence were ineligible for an interview in Wave 1. This left 15,127 persons eligible for a personal interview, 13,969 of which completed the Person Questionnaire. Additionally, of this group, 13,159 (94%) completed and returned the Self-Completion Questionnaire.

As discussed in Wooden, Freidin and Watson (2002), these response rates compare favourably with the rates achieved in the first waves of similar major household panel surveys conducted in other Western nations. More importantly, comparison with population benchmark data from ABS sources suggest that the sample has characteristics that are broadly in line with what would have been expected if the sample were truly random. Moreover, observable differences between the responding and selected samples can be corrected for with the application of population weights that are provided with the data.

For this study what obviously matters most is that casual employees (and employees on fixed-term contracts) are adequately represented. In Table 1, therefore, a comparison of estimates from the HILDA Survey and from the ABS Forms of Employment Survey (FOES), conducted in November 2001, is presented using the traditional ABS measure of casual employment (based on access to paid leave entitlements). The FOES is an ideal reference source given that it was undertaken at a time coincident with the HILDA Survey fieldwork period and employed close to identical population coverage rules to that used in the HILDA Survey.<sup>5</sup> In addition, the published data from the FOES readily enable the identification of owner-managers. This is important since in the HILDA Survey owner-managers are not asked about access to leave entitlements. As a consequence, owner-managers have been excluded from the numerator in all of the estimates presented in Table 1 (effectively we are assuming that an owner-manager cannot also be a casual employee).

As can be clearly seen, the estimates of casual employment (based on access to leave entitlements) from the two surveys are very similar. Some differences are to be expected given the variation in the timing of the survey reference periods, and given the FOES is conducted on an 'any responsible adult basis' (meaning persons can answer on behalf of other household members) whereas in the HILDA Survey all data about a respondent's employment are collected directly from that respondent. Both surveys indicate that, in late 2001, about 22 per cent of the employed workforce was employed on a casual basis, using the leave entitlements definition. If we restrict the population of interest to employees and also

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<sup>5</sup> The Forms of Employment Survey is conducted as a supplement to the monthly Labour Force Survey. The scope rules for all supplementary surveys restrict coverage to persons living in private dwellings and exclude persons living in remote parts of Australia. The same coverage rules were employed in Wave 1 of the HILDA Survey.

**Table 1: Leave Entitlements Status of Employees: HILDA Survey and ABS Survey Estimates Compared**

<i>Employees without either paid holiday or paid sick leave as a % of:</i>	<i>HILDA Survey, Wave 1</i>	<i>ABS Forms of Employment Survey, November 2001</i>
All employed	22.3	22.5
All employees, including owner managers	25.5	25.7
All employees, excluding owner managers	27.4	27.9

Notes: 1. The HILDA Survey data have been weighted to ensure sample reflects broader population.  
2. Owner-managers have been excluded from the numerator in all calculations.

Sources: Confidentialised unit record data from HILDA Survey Wave 1 (2001), Release 1, October 2002. Australian Bureau of Statistics, *Forms of Employment, Australia, November 2001* (ABS cat. no. 6359.0).

exclude those owner-managers that the ABS treats as employees of their own business, then the percentage rises to between 27 and 28 per cent.

#### 4. Classifying Employees

Despite the widespread use made of ABS data in quantifying the extent of casual employment, identifying casual employees is no simple matter. As Owens (2001, p. 119) has observed: 'The term casual is one that has no precise or fixed meaning in law'. As such, common law definitions impose very few constraints on the form casual employment can take. While it is generally accepted that under common law 'each engagement of casual workers constitutes a separate contract of employment' (Brooks 1985, p. 166), this still does not mean casual employment is necessarily restricted to short-term, intermittent employment. That is, a casual employee could be employed on a series of contracts and, from the perspective of employment continuity at least, may be observationally indistinguishable from a non-casual employee.

For many employment matters, however, common law is largely irrelevant; far more important have been the conditions set down in awards and agreements. But in the case of casual employment we again find that award definitions are not very helpful. The definitions of casual employment that can be found in awards are extremely varied and in many cases provide very little guidance as to the employment conditions that define casualness. Indeed, as has long been recognised, in many awards a casual employee is defined simply as 'one engaged and paid as such' (Campbell 1996a, p. 48). Moreover, Owens (2001, pp. 120-121) claims that following the Award Simplification decision of 1997 this very unhelpful type of definition will have become even more widespread.

Estimates of the incidence of casual employment have thus not been based on legal or awards-based definitions. Instead, for the most part they have been based on a proxy-measure – the presence or absence of entitlements to paid annual leave or paid sick leave. Adopted by the ABS for the first time in 1988, this approach can be justified on the grounds that most

casual employees receive a pay loading in lieu of paid annual leave and sick leave (and indeed other benefits, such as paid public holidays). Nevertheless, as Owens (2001, fn 54) again points out, there is no necessary correlation between employment contract type and qualification for these entitlements and hence this measure will be less than perfect. Indeed, the ABS now appears to have recognised the proxy nature of this measure, explaining why it has, since 2000, abandoned the use of the casual label, and now simply refers to employees with and without paid leave entitlements.

The standard ABS measure also suffers from other weaknesses. First, like any survey it will be subject to reporting errors. Most obviously, some respondents may confuse use of entitlements with access to entitlements, reporting that they do not have leave entitlements when what they are actually reporting is that they have not used such entitlements. Reporting errors are not necessarily a problem if they are random, but in this case there are good reasons to expect some systematic under-reporting of entitlements, especially in the case of paid sick leave.

Second, some respondents are unable to provide an answer to the questions about access to leave entitlements and in these instances the ABS codes the answers as equivalent to a no response. This seems problematic, especially given the survey method used by the ABS allows for household members to answer on behalf of others, and again the effect will be towards overstating the incidence of casual employees.

Third, as is now well recognised (Campbell 1996b, Campbell and Burgess 2001, Murtough and Waite 2000a, Wooden and Hawke 1998), included in the standard ABS definition of an employee are many owner-managers – owner managers of incorporated businesses are treated as employees of their own business. Many of these respondents, however, are likely to respond that they do not give themselves paid sick leave or paid annual leave and would then be classified by the ABS as a casual employee.

Finally, and as noted earlier, the ABS approach assumes that all employees can be classified into two groups – casual employees and the somewhat misleadingly labelled permanent employees. This does not work well for workers on fixed-term employment contracts. Such employees tend to have entitlements to paid sick leave and paid annual leave, and hence will mostly be assigned to the permanent employee group, yet on any objective criteria permanent employment status is exactly what this type of worker does not have. Indeed, in most European data collections, employees on fixed-term employment contracts would fit perfectly into their definition of temporary employment, whereas most casual employees would not.<sup>6</sup>

In recent years, as part of a new survey module attached to the monthly population survey (the Forms of Employment Survey referred to earlier), the ABS has adopted a different approach to identifying casual employment. Instead of relying solely on responses to questions about access to leave entitlements, in this survey the ABS now also asks workers without leave entitlements whether they would classify themselves as a casual worker.

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<sup>6</sup> Indeed, the OECD has recently assembled data on temporary employment across countries that explicitly rejects equating casual employment in Australia with temporary employment elsewhere (OECD 2002; see also Wooden 2001b). As a result, using data from 1997, temporary employment in Australia is estimated to account for only 6 per cent of dependent employment (that is, employees) in 1997, and the majority of these (just over three-quarters) are workers with fixed-term contracts.

Campbell and Burgess (2001), however, have been highly critical of this type of method for classifying employees. They argued that ‘self-identification is not a sound approach’ (p. 93), largely because casual employment is not clearly defined and hence will mean different things to different people. Such criticisms are difficult to understand given that subjective data are used extensively in survey research, especially in the fields of psychology and sociology. Campbell and Burgess are obviously attracted to the less ambiguous nature of questions about leave entitlements, but would a question about the type of employment contract be any more problematic than say a question about how happy respondents were? The latter has literally been the subject of many hundreds of empirical studies, and it is now well accepted that even simple global self-report measures about overall happiness and life satisfaction generally possess adequate statistical properties (Diener et al 1999, pp. 277-278). Indeed, the popularity of self-report measures lies, in large part, in the ease with which they can be employed to both directly measure, and to assist in drawing inferences about, human behaviour. For example, if what we are mostly interested in is how casual employment status impacts on the behaviour of workers, then surely what matters most is self-perceptions. After all, if someone believes that they are employed on a permanent basis, surely we would expect that they would behave as if they were permanently employed? Of course, Burgess and Campbell (2001) are correct in thinking that responses will be subject to measurement error, but this will only affect the estimated level of casual employment if that error is non-random.

In the analysis presented in this paper we rely on self-reported data about employment contract type. The relevant question used in the HILDA Survey, however, is superior to that used in the FOES in at least two notable ways. First, all employees (excluding owner-managers) are asked to indicate which category of employment they fall into, and not just those who indicated they did not receive either paid annual leave or sick leave. Second, in line with the recommendations of Campbell and Burgess (2001), the question in the HILDA Survey asks respondents to classify themselves into one of three categories: (i) permanent or ongoing; (ii) casual; and (iii) fixed-term.<sup>7</sup> A respondent can thus not have a fixed-term employment contract and be classified as a permanent employee, as can happen in the ABS data.

A summary of the population weighted responses to this question, cross-tabulated by the traditional ABS measure of casual employment status based on leave entitlements, is provided in Table 2. This table reveals that access to leave entitlements is highly correlated with self-reported casual employment status, with 92.7 per cent of casual employees also reporting not having paid annual leave or sick leave entitlements. Nevertheless, use of leave entitlements causes the casual employment share to be overstated by almost three percentage points, with around 17 per cent of employees who reported not having leave entitlements indicating that they were employed on either an ongoing basis or on a fixed-term contract.

Another interesting finding to emerge from Table 2 is the apparently high proportion of employees who indicate that they are employed on a fixed-term contract basis – just over 9 per cent. In contrast, the comparable estimate provided by the ABS in the November 2001 FOES is just 3.9 per cent. This difference is, we believe, not the result of sampling bias, but instead a function of the different approaches used in the two surveys. In the HILDA Survey

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<sup>7</sup> A fourth ‘other’ category to catch less common arrangements was also provided. Most of these responses, however, were back-coded to the other three categories. Nevertheless, a small proportion (0.3%) could not be back-coded. These cases included some apprentices, persons working on probation and some employees working on a commission basis.

respondents are simply asked to choose which employment arrangement best describes their own employment circumstance. In contrast, the ABS first asks respondents whether the job has a set finishing date and then whether that was because the respondent was on a fixed-term contract or not. As a result, we expect many contract employees who have an expectation that their contract will be renewed will not be classified by the ABS as being employed on fixed-term contracts. There are also reasons to be concerned about how the ABS treats workers with contracts that are contingent on the completion of specific tasks rather than dates.

**Table 2: Leave Entitlements by Self-reported Employment Contract Status (%): Employees, excluding owner managers**

<i>Whether has leave entitlements</i>	<i>Contract status</i>			<i>Total</i>
	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent / Ongoing</i>	
No	1.2	22.7	3.4	27.4
Yes	7.9	1.8	62.7	72.5
Total	9.1	24.5	66.1	100.0

Notes: 1. The data have been weighted to ensure sample reflects broader population.  
2. The total includes a small number of cases that could not be classified according to contract status.

Source: Confidentialised unit record data from HILDA Survey Wave 1 (2001), Release 1, October 2002.

## 5. The Characteristics of Casual and Fixed-term Contract Employees and their Jobs

It has been well established that the characteristics of employees vary markedly with the type of employment contract held (e.g., Romeyn 1992, Burgess 1996, Murtough and Waite 2000b, VandenHeuvel and Wooden 2000, Waite and Will 2002). ABS data, for example, have long indicated that casual employees are, compared with other employees, more likely to be female, young, and work on a part-time basis, are mostly found working in less skilled occupations, and especially in the retail trade and accommodation, cafes and restaurants industries, and have relatively low rates of union membership. The HILDA data, however, allow us to examine a much greater range of worker and employment characteristics than previously possible. Thus in Tables 3 and 4 we report a summary of an extensive array of employee characteristics cross-classified by employment contract status.

Focusing first on the personal characteristics of casual employees (summarised in Table 3), we find, as expected, that casual employees are, compared with employees with permanent or ongoing arrangements, much more likely to be women, young, have left school without completing a post-school qualifications or, alternatively, still involved in full-time study. Since more than 40 per cent of casual employees are under the age of 25 years, it is hardly surprising that a large proportion of casual employees (almost 60 per cent) are also single. However, again as expected, there is also a relatively high incidence of casual employment among married women, but only those with child caring responsibilities, and hence most of

these casual jobs are also part-time jobs. Casual employees are also somewhat more likely to be born in Australia and living in regional Australia. These latter differences, however, while statistically significant, are not particularly large.<sup>8</sup>

One interesting aspect of casual employment that has not been the subject of much rigorous scrutiny is the employment history of casuals. Since many casual jobs are of short duration (see below), and hence associated with a relatively high degree of job changing, it follows that casual employment is more likely to be accompanied by exposure to unemployment (see Campbell and Burgess 1993, Hancock 1999). The HILDA data confirm that casual employees are much more likely to have had a recent history of unemployment. Nevertheless, the incidence of unemployment among current casual employees is not that large. While 14 per cent of casual employees spent at least some time in unemployment during the financial year preceding interview (compared with only 4 per cent of permanent employees), the mean proportion of the year spent in unemployment was only 5.1 per cent (or 2.5 weeks). There is, however, a sample selection issue here, with many of those currently unemployed likely to have been former casual employees. Augmenting the employee sample with persons who are currently unemployed on the basis of their employment status in their last job sees the mean weeks spent by casual employees in unemployment increase to 4.7 weeks, whereas for permanent employees the increase is only small – from 1.1 to 1.3 weeks.

Moving now to employment and job-related characteristics, Table 4 provides further evidence of the marked differences that exist between casual employees and permanent employees. Many of these have been previously documented from other data sources, but are worth recapping on here.

First, around three-quarters of all casual employees are working on a part-time basis, compared with only 16 per cent of permanent employees. It is thus not surprising that casual employees are also more likely to have second jobs. It is also not surprising given their concentration in part-time jobs that a considerable proportion (36%) of casual employees would prefer to work more hours.<sup>9</sup> Nevertheless, in aggregate, just over half of all casual employees seem content with the number of hours worked. Among permanent employees the comparable proportion is only slightly higher.

Second, the average job tenure among casual employees is relatively short, with just over 43 per cent having been in their current job for less than a year, compared with only 15 per cent of permanent employees. Nevertheless, and as has been previously noted (e.g., Smith and Ewer 1999, VandenHeuvel and Wooden 2000), there is a significant proportion of the casual workforce that has been in their current job for quite lengthy periods of time, with around one-quarter employed with the same firm for 2 to 5 years and another 15 per cent for 5 years or more.

Third, casual employees are heavily concentrated in occupations at the low end of the skills spectrum, which is at least partly a reflection of the much lower levels of educational attainment among this group.

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<sup>8</sup> On all of the variables reported in Table 3, the differences between casual and permanent employees are statistically significant.

<sup>9</sup> If we restrict our attention to just casual employees working less than 35 hours this proportion rises to 42 per cent.

**Table 3: Employment Contract Status by Selected Personal Characteristics: Employees, excluding owner managers**

<i>Characteristic</i>	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent / Ongoing</i>	<i>Total</i>
<b>Sex (%)</b>				
Male	52.7	42.8	56.8	53.0
Female	47.3	57.2	43.2	47.0
<b>Relationship in household (%)</b>				
Partnered female w child <15	11.7	13.9	9.6	10.8
Partnered female w/o child <15	16.3	14.2	18.2	17.1
Single female w children <15	*	3.2	2.0	2.3
Single female w/o child <15	16.8	25.9	13.4	16.8
Partnered male w child <15	14.6	5.8	19.4	15.6
Partnered male w/o child <15	18.3	8.4	19.8	16.8
Single male w children <15	*	*	*	0.3
Single male w/o child <15	19.7	28.4	17.2	20.2
<b>Area of usual residence (%)</b>				
Major city	63.6	62.8	69.0	67.0
Inner regional Australia	25.8	24.8	22.1	23.1
Outer regional Australia	8.9	11.3	7.3	8.4
Remote Australia	1.7	1.1	1.5	1.4
<b>Country of birth (%)</b>				
Australia	77.5	77.6	73.8	75.1
Main English speaking country	11.3	7.4	11.4	10.3
Other country	11.3	15.0	14.8	14.5
<b>Age group (%)</b>				
15-19 years	6.2	23.6	3.1	8.5
20-24 years	15.9	18.2	10.0	12.6
25-34 years	25.9	20.0	28.1	25.9
35-44 years	25.4	18.7	26.3	24.3
45-54 years	20.2	11.5	24.0	20.5
55-64 years	5.2	6.7	8.0	7.4
65 years or more	*	1.4	0.5	0.8
<b>Highest educational attainment (%) [excluding persons still at school or without a post-school qualification and are still studying]</b>				
Postgraduate qual.	6.6	1.5	3.7	3.5
Graduate diploma / certificate	9.4	4.0	6.6	6.3
Undergraduate degree	22.5	13.2	19.1	18.2
Advanced diploma / Diploma	11.8	7.0	10.5	9.9
Certificate: Level III / IV	19.7	15.8	20.7	19.6
Certificate: Level I / II	6.2	8.0	4.9	5.6
Certificate: Level undefined	*	5.7	3.8	3.9
Completed Year 12	9.4	15.8	10.6	11.6
Completed Year 11 or below	11.9	26.3	18.3	19.4

**Table 3 (cont'd)**

<i>Characteristic</i>	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent / Ongoing</i>	<i>Total</i>
Study status				
At school	*	13.3	*	3.5
Studying FT in higher education	7.4	14.8	2.0	5.7
Studying PT in higher education	15.2	5.3	10.9	9.9
Not a student	77.2	66.2	86.8	80.9
Activity during previous financial year				
% time in FT education (mean)	8.1	30.2	3.0	10.2
% time in PT education (mean)	9.2	3.7	7.3	6.6
% time in employment (mean)	92.0	81.5	96.3	92.2
% time in unemployment (mean)	2.8	5.1	1.0	2.2

- Notes: 1. The data have been weighted to ensure sample reflects broader population.  
2. The total includes a small number of cases that could not be classified according to contract status.  
3. Most variables have some missing cases. Such cases are assumed to be distributed in the same way as the responding population. The one exception here is education, where the number of indeterminate cases was considerable. In this case, therefore, columns do not sum to 100.  
\* Based on too few cases (N <20) for estimate to be reliable.

Source: Confidentialised unit record data from HILDA Survey Wave 1 (2001), Release 1, October 2002.

Fourth, casual employees tend to have relatively low earnings. Even if we adjust for hours worked, the hourly earnings of casual employees is still only around 83 per cent that of permanent employees, despite the fact that many casual employees receive a pay loading in lieu of leave entitlements. Nevertheless, it cannot be concluded that casual employees are necessarily poorly paid, especially given they tend to be relatively less educated and skilled than other groups of workers. Indeed, casual employees were more likely to respond favourably to a question about the fairness of their pay.<sup>10</sup>

Fifth, less than 15 per cent of all casual employees are members of a trade union, which is less than half the rate among permanent employees.

Sixth, and again not surprisingly, casual employment is relatively common among labour hire companies and temporary worker agencies. Labour hire companies or temporary work agencies employ just over 9 per cent of all casual employees, and casual workers account for over 60 per cent of all workers employed by such businesses.

Finally, the types of organisations that employ casual workers are quite distinctive. They tend to be small, private sector firms, and they tend to be particularly prevalent in retail trade and accommodation cafes and restaurants.

<sup>10</sup> As part of the self-completion questionnaire all employed respondents were asked to indicate, on a 7-point scale, the extent to which they agreed or disagreed with the statement "I get paid fairly for the things I do in my job". The mean score for casual employees was 4.79, which is significantly larger than the mean of 4.50 for permanent employees (t=5.46).

**Table 4: Employment Contract Status by Selected Employment Characteristics: Employees, excluding owner managers**

<i>Characteristic</i>	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent / Ongoing</i>	<i>Total</i>
Hours of work per week – main job (%)				
Less than 35	22.8	75.4	16.0	31.2
35-40	35.2	17.2	43.9	36.6
41-48	20.1	3.2	19.9	15.8
49+	21.9	4.2	20.1	16.4
Mean hours of work per wk – main job	39.6	21.9	40.7	36.0
Multiple job holder (%)	8.9	13.0	6.9	8.5
Preferred hours of work – all jobs (%)				
Prefer fewer hours	32.5	10.8	33.1	27.6
Prefer about the same hours	57.4	53.0	55.0	54.7
Prefer more hours	10.1	36.2	11.9	17.7
Occupation group (%)				
Managers and administrators	8.3	*	7.5	5.8
Professionals	33.5	10.9	25.6	22.7
Associate professionals	14.0	5.4	12.4	10.8
Tradespersons	11.0	7.6	11.7	10.7
Advanced clerical and service	*	2.3	3.5	3.2
Intermediate clerical, sales, service	16.3	22.1	17.1	18.3
Intermediate production, transport	4.9	9.1	8.7	8.4
Elementary clerical, sales, service	5.9	23.7	7.4	11.3
Labourers and related workers	3.3	18.4	6.1	8.8
Current job tenure (%)				
<1 year	31.3	43.1	15.4	23.8
1 to <2 years	12.2	17.0	10.6	12.3
2 to <5 years	28.6	24.5	25.8	25.7
5 to <10 years	14.8	8.5	19.6	16.4
10 to <20 years	8.1	4.8	19.1	14.5
20 years or more	5.1	2.0	9.6	7.3
Mean years of job tenure	4.4	2.6	7.3	5.8
Years of occupation experience (mean)	6.5	5.1	9.7	8.3
Employed by labour hire firm (%)	6.2	9.4	1.1	3.7
Current earnings – main job				
Weekly earnings (mean \$)	783.40	337.85	806.10	690.05
Hourly earnings (mean \$)	19.55	16.45	19.80	18.95
Organisation type (%)				
Private sector: commercial	51.1	83.2	67.3	69.8
Private sector: non-commercial	10.8	5.0	6.2	6.3
Public sector: commercial	7.3	2.7	6.2	5.4
Public sector: non-commercial	30.7	9.1	20.3	18.5

**Table 4 (cont'd)**

<i>Characteristic</i>	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent / Ongoing</i>	<i>Total</i>
Trade union member (%)	30.5	14.7	36.6	30.6
Industry division (%)				
Agriculture, forestry & fishing	*	4.2	1.7	2.3
Mining	*	*	1.7	1.6
Manufacturing	6.1	8.0	13.9	11.7
Electricity, gas & water	*	*	1.1	1.0
Construction	4.5	3.1	5.5	4.9
Wholesale trade	*	3.5	4.4	3.9
Retail trade	9.6	25.5	10.5	14.2
Accommodation, cafes & restaurants	*	14.4	2.9	5.7
Transport & storage	*	3.8	4.9	4.4
Communication	*	1.5	3.0	2.6
Finance & insurance	4.0	*	5.4	4.2
Property & business services	12.4	7.2	11.0	10.2
Government administration	7.2	1.2	5.9	4.8
Education	19.3	7.5	9.8	10.1
Health & community services	12.4	9.7	12.9	12.0
Culture & recreational services	4.0	4.7	1.7	2.7
Personal & other services	3.7	3.5	3.7	3.7
Firm size: number of employees (%)				
<20	22.6	42.7	20.8	26.1
20-99	15.1	17.8	17.7	17.4
100-499	14.3	9.5	14.7	13.5
500-999	8.7	5.6	7.7	7.3
1000-4999	10.1	7.0	12.1	10.7
5000-19999	11.7	7.1	12.0	10.8
20000+	17.6	10.3	15.0	14.1

Notes: See Table 3.

Source: Confidentialised unit record data from HILDA Survey Wave 1 (2001), Release 1, October 2002.

Turning now to fixed-term contract employees, the data presented in Tables 3 and 4 suggest that they are much more like permanent employees than they are casual employees. As previously reported by both VandenHeuvel and Wooden (2000) and Waite and Will (2002), workers on fixed-term contracts are, compared with permanent workers, more likely to be female, young, single, working part-time and have relatively short job tenure. These differences, however, are not nearly as marked as they are for casual employees. Indeed, and in stark contrast to casual employees, fixed-term contract workers are more likely than permanent workers to have university qualifications and be working in the more skilled professions. Moreover, unlike casual employment, relatively large use is made of fixed-term contracts in the public sector, and especially in the education industry. Fixed-term contract workers thus clearly occupy a very different labour segment to the one filled by casual workers.

## 6. Job Satisfaction and Employment Contract Status

### 6.1. *Measuring job quality*

Isolating the attributes of jobs that would enable good jobs to be distinguished from bad jobs is an extremely difficult exercise for at least two reasons. First, there are a great many dimensions to jobs that contribute to overall worker well-being. Second, there is likely to be great variation across individual workers in the weight assigned to different job attributes. As a consequence, in this analysis we make no effort to measure objective job characteristics and instead rely on self-reported measures of satisfaction with the job. This seems a reasonable approach if it is accepted, as we do, that enhancing job quality is essentially about enhancing the utility individuals derive from work, and as Clark (1997, p. 344) has observed, ‘job satisfaction may be as close as we are likely to come to a proxy measure of utility at work’. In any case, it has long been established that job satisfaction exhibits strong correlations in the expected direction with measures of a great many job attributes, including different aspects of work content (such as variety, task significance and skills utilization), pay and other benefits, job security, promotion opportunities, recognition, working conditions, relationships with co-workers and supervisors, effective communication structures within firms, and participation in managerial decision-making (e.g., Hackman and Lawler 1971, Locke 1976, Hackman and Oldham 1980, Brass 1981, Glick, Jenkins and Gupta 1986).

### 6.2. *Employment status and job satisfaction: Descriptive statistics*

The HILDA Survey provided measures of satisfaction with five distinct aspects of work – total pay, job security, the work itself, hours worked and the flexibility available to balance work and non-work commitments. In addition, a measure of overall job satisfaction was also collected. All items were scored on an 11-point (0 to 10) scale with only the extreme values labeled. A value of zero was described as “totally dissatisfied” and a value of 10 as “totally satisfied”. The construction of the questions was based on a similar set of questions included in the British Household Panel Survey (BHPS) and which have formed the basis of a number of studies into job satisfaction in Britain (Clark 1996, 1997, Clark, Oswald and Warr 1996, Booth, Francesconi and Frank 2002). The list of job domains used in the HILDA Survey, however, does differ from that used in the BHPS. Further, the BHPS used a 7-point scale.

Table 5 summarises the mean responses to these questions cross-classified by employment contract status and by sex. The results of formal tests of significance of difference between the mean responses of fixed-term contracts and permanent employees and between casual employees and permanent employees are also presented. Focusing first on men, these simple results suggest that, on average, the most satisfied are those working on fixed-term contracts while the least satisfied are casual employees. Those on fixed-term contract workers are especially satisfied with the type of work they are doing and while this is presumably offset to some extent by relatively low levels of satisfaction with job security, in terms of overall job satisfaction, fixed-term workers score significantly higher than all other worker types. Male casual employees, on the other hand, when compared with permanent employees, report significantly lower levels of satisfaction with all of the measured job aspects except pay.

With respect to female employees, on the other hand, the picture is quite different. While fixed-term contract workers again emerge as the most satisfied, the difference is still

**Table 5: Job Satisfaction by Employment Contract Status and Sex:  
Employees, excluding owner managers**

<i>Sex / Type of job satisfaction</i>	<i>Mean scores (0-10 scale)</i>			<i>t-statistic on difference between:</i>	
	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent</i>	<i>Fixed- term &amp; permanent</i>	<i>Casual &amp; permanent</i>
<b>Men</b>					
Pay	6.98	6.63	6.79	1.482	1.604
Job security	7.26	6.77	7.92	4.359	9.875
Work itself	7.93	7.02	7.56	3.435	5.839
Hours worked	7.04	6.85	7.10	0.477	2.548
Flexibility available to balance work and non-work commitments	7.24	7.42	7.15	0.618	2.502
Overall job satisfaction	7.75	7.18	7.46	2.893	3.296
<b>Women</b>					
Pay	6.60	6.92	6.63	0.146	3.034
Job security	7.28	7.32	8.31	6.387	9.955
Work itself	8.01	7.30	7.69	2.924	4.467
Hours worked	7.28	7.24	7.36	0.505	1.245
Flexibility available to balance work and non-work commitments	7.47	7.97	7.38	0.598	6.326
Overall job satisfaction	7.90	7.68	7.72	1.591	0.515

Notes: 1. The data have been weighted.  
2. The t-statistic will differ depending on whether variances are assumed to be equal or not. Levene's test for equality of variances is used to determine which t-statistic is appropriate.

Source: Confidentialised unit record data from HILDA Survey Wave 1 (2001), Release 1, October 2002.

relatively small, and not enough to achieve statistical significance at conventional levels. More importantly, the difference in the overall job satisfaction of female casual employees compared with females in permanent employment is effectively zero. It would appear that greater satisfaction among casual employees with pay and the flexibility available to balance work and non-work commitments compensates for the lower levels of satisfaction with job security and the type of work undertaken.

We next examined whether these relationships were dependent on the number of hours worked. This is potentially an important influence given that standard economic theory leads us to expect the utility obtained from work to decline with hours worked and given employment status is highly correlated with hours of work. In other words, we might expect the relative job satisfaction of casual and fixed-term employees to decline once hours of work are controlled for. In Table 6, therefore, we again report mean job satisfaction scores cross-classified by employment contract status and sex, but in this case we also distinguish between

**Table 6: Job Satisfaction by Employment Contract Status, Sex and Usual Hours Worked in Main Job: Employees, excluding owner managers**

<i>Sex / Type of job satisfaction</i>	<i>Mean scores (0-10 scale)</i>			<i>t-statistic on difference between:</i>	
	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent/ Ongoing</i>	<i>Fixed-term &amp; permanent</i>	<i>Casual &amp; permanent</i>
<b>Men – Full-time</b>					
Pay	6.98	6.57	6.81	1.300	1.654
Job security	7.33	5.76	7.93	3.760	11.020
Work itself	7.92	6.93	7.58	3.141	4.652
Hours worked	7.02	6.81	7.10	0.588	2.052
Flexibility available to balance work and non-work commitments	7.15	6.53	7.13	0.141	3.144
Overall job satisfaction	7.73	6.84	7.48	2.323	4.749
<b>Men – Part-time</b>					
Pay	6.92	6.68	6.36	1.140	1.358
Job security	6.55	7.38	7.84	2.360	2.054
Work itself	7.98	7.08	7.22	1.691	0.618
Hours worked	7.23	6.87	7.13	0.215	1.082
Flexibility available to balance work and non-work commitments	8.11	7.95	7.51	1.637	1.987
Overall job satisfaction	7.99	7.38	7.07	2.195	1.546
<b>Women – Full-time</b>					
Pay	6.57	6.85	6.59	0.086	1.224
Job security	7.38	6.35	8.32	4.868	6.919
Work itself	7.93	7.11	7.71	1.657	2.948
Hours worked	6.88	7.24	7.09	1.161	0.723
Flexibility available to balance work and non-work commitments	6.96	7.26	7.08	0.600	0.782
Overall job satisfaction	7.73	7.49	7.65	0.556	0.815
<b>Women – Part-time</b>					
Pay	6.66	6.93	6.71	0.213	1.616
Job security	7.10	7.48	8.28	4.099	6.460
Work itself	8.15	7.32	7.65	2.592	2.695
Hours worked	7.96	7.24	7.97	0.054	5.754
Flexibility available to balance work and non-work commitments	8.33	8.10	8.06	1.165	0.272
Overall job satisfaction	8.18	7.71	7.90	1.633	1.757

Notes: See Table 5.

Source: Confidentialised unit record data from HILDA Survey Wave 1 (2001), Release 1, October 2002.

those whose main job involved full-time hours (usually 35 per week or more) and those whose main job involved part-time hours.

Looking first at men, the figures presented in Table 6 suggest two immediate conclusions. First, the higher levels of job satisfaction among employees on fixed-term contract observed in Table 5 continue to remain even after distinguishing full-time employees from part-time employees. Second, the relatively high levels of job dissatisfaction among male employees in casual jobs are contained to those working full-time jobs. Indeed, males in part-time casual jobs have average levels of overall job satisfaction that are not much below that of males in full-time permanent jobs. The differential between full-time employees in casual and permanent positions is quite marked, with casuals scoring significantly lower on all measured job domains except pay. The differential with respect to job security, which is over two points on the scale, is especially large.

Among females on the other hand, distinguishing between those in full-time jobs and those in part-time jobs, only makes a small difference with, as hypothesised, the gap between casuals and permanent employees widening. These differences, however, are still quite small, but do achieve weak significance (at the 10 per cent level) when considering part-time employees. It needs to be recognised, however, that in these data the group with the highest levels of job satisfaction in the workforce are female employees in permanent part-time jobs.

### 6.3. *Employment contract status and job satisfaction: Multivariate analysis*

The final step in this analysis of job satisfaction was to determine whether these observed differences are robust to the inclusion of other variables that might impact on job satisfaction, especially if correlated with employment status. For example, it has been well established that young workers tend to be more positive than older workers when reporting job satisfaction (Clark et al. 1996). We also know, however, that young workers are highly concentrated in casual employment. Consequently, if the independent effects of age were held constant, even larger differentials between the satisfaction of employees in casual jobs and those in non-casual jobs might emerge.

The approach adopted follows Clark's (1996, 1997) analysis of job satisfaction data collected in the BHPS. Overall job satisfaction is thus regressed against a set of individual and job characteristics. Since the dependent variable is ordinal, the ordered probit estimation technique is used (Zavoina and McKelvey 1975). In addition, we take into account the clustered nature of the sample by employing a robust estimator of variance that relaxes the assumption of independent errors and allows for correlated errors within clusters (i.e., CDs), but not across clusters.<sup>11</sup> Given the evidence above that the satisfaction of male and female employees is likely to respond differently to employment status, separate equations are estimated for male and female employees.<sup>12</sup>

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<sup>11</sup> Most surveys that use face-to-face interviews, including almost all of the ABS household surveys, employ clustered sample designs. However, the HILDA Survey is an exception in that the public data set identifies those clusters thus enabling this design effect to be corrected for.

<sup>12</sup> As in Clark (1997), in a pooled equation the coefficient on a sex dummy always indicates that female employees are more satisfied with their jobs than their male counterparts.

We report the results of estimating two specifications. In the first, dummy variables for each of the three employment contract types – fixed-term contract, casual and other arrangement – are entered, with ongoing or permanent employees acting as the control group, and hours of work is as entered in its natural log form. In the second specification, we follow Wooden and VandenHeuvel (2000) and interact employment contract status with hours of work.

The remaining control variables that were included in the analysis are all briefly described in Appendix A. The initial list of variables was based in large part on the variables included in Clark (1996). Thus we included variables for age (specified as a quadratic), health, educational attainment, marital status, ethnic background (represented here by variables identifying indigenous origin, region of birth and English language ability), location, occupation, trade union membership, firm size,<sup>13</sup> industry and sector (that is private or public). We then experimented with a number of additional variables, which led to the subsequent inclusion of variables measuring whether employed through a labour-hire firm, supervisory status, shift work arrangements, and whether the employee has a formal arrangement with an employer to undertake paid work from home. In addition, we included a measure of optimism in an attempt to control for any biases that might result if people with different personality types tend to cluster into different employment categories and a series of variables intended to measure what is important to respondents in their day-to-day lives.

Of particular significance here is a measure of the importance of paid work in the lives of respondents. As argued by Clark (1997), subjective reports of job satisfaction are likely to be coloured by expectations. Specifically, Clark argued that those who expect less from their jobs would, for any given job, be more satisfied. This argument could easily be applied with respect to non-standard employment. If such employment has traditionally been linked to relatively lowly-paid, unskilled jobs, then it seems reasonable to believe that workers who accept such jobs will not have high expectations of those jobs. It is hoped that the inclusion of the variable measuring the subjective importance of employment will control for this effect.

The results of the ordered probit estimation are reported in Table 7. The first point to note is that the estimation of separate equations for men and women is justified, with the satisfaction levels of men and women responding differently to some influences, including not only employment status but also education, marital status, supervisory status, union membership and shift work. Moreover, a formal test for the equality of coefficients leads us to reject the restrictions imposed by pooling the data.

Second, the estimated coefficients are mostly sensible and in line with both expectations and previous research, though high standard errors often mean coefficients are not statistically significant. Thus, as in the work of Clark (1996, 1997), job satisfaction declines with the number of hours worked, exhibits a u-shaped relationship with age, with workers in their early 30s being the least satisfied, and is much higher for those workers who report being in excellent health (the control group), have relatively low levels of education, and are employed in small firms. We also find, as Clark (1997) did, that associations between marital status and job satisfaction were only significant for women. Further, and again as in Clark (1997), the negative relationship with union membership is only significant for women.

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<sup>13</sup> Clark (1996) included controls for establishment size. However, in testing, this set of variables was found to be inferior to firm size.

**Table 7: Ordered Probit Estimates – Dependent Variable is Job Satisfaction**  
(Robust standard errors in brackets)

<i>Variable</i>	<i>Specification I</i>		<i>Specification II</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Employment contract status [control = Permanent]				
Casual	-0.169** (0.068)	-0.073 (0.058)		
Fixed-term contract	0.125# (0.066)	0.103# (0.061)		
Other	0.609 (0.477)	-1.089** (0.326)	0.580 (0.477)	-1.052** (0.337)
Log hours	-0.187** (0.049)	-0.221** (0.048)		
Agency worker	-0.248* (0.109)	0.016 (0.106)	0.239* (0.112)	0.004 (0.105)
Employment contract status and usual weekly hours interacted [control = Permanent working 35-40 hours]				
Permanent * Less than 35 hours			-0.075 (0.108)	0.087 (0.063)
Permanent * 41-48 hours			-0.073 (0.056)	-0.066 (0.067)
Permanent * 49 hours or more			-0.042 (0.055)	-0.216** (0.081)
Casual * Less than 35 hours			0.052 (0.094)	0.112# (0.064)
Casual * 35-40 hours			-0.242* (0.108)	-0.085 (0.119)
Casual * 41-48 hours			-0.447* (0.202)	-0.487* (0.233)
Casual * 49 hours or more			-0.383** (0.131)	-0.105 (0.314)
Fixed-term * Less than 35 hours			0.145 (0.212)	0.287** (0.100)
Fixed-term * 35-40 hours			0.218* (0.102)	0.167 (0.105)
Fixed-term * 41-48 hours			0.075 (0.115)	-0.205 (0.150)
Fixed-term * 49 hours or more			-0.058 (0.117)	-0.200 (0.143)
Age	-0.040** (0.011)	-0.028* (0.013)	-0.041** (0.011)	-0.031* (0.013)
Age-squared / 100	0.061** (0.014)	0.043** (0.016)	0.062** (0.014)	0.047** (0.016)

**Table 7 (cont'd)**

<i>Variable</i>	<i>Specification I</i>		<i>Specification II</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Health [control = Excellent]				
Very good	-0.157** (0.045)	-0.155** (0.048)	-0.160** (0.046)	-0.164** (0.049)
Good	-0.207** (0.055)	-0.167** (0.059)	-0.205** (0.056)	-0.174** (0.059)
Fair or poor	-0.190* (0.077)	-0.277** (0.088)	-0.186* (0.077)	-0.284** (0.088)
Education [control = Year 11 or below]				
Post-graduate qualification	-0.226** (0.088)	-0.562** (0.085)	-0.227** (0.089)	-0.554** (0.085)
Degree	-0.228** (0.079)	-0.502** (0.074)	-0.222** (0.080)	-0.502** (0.074)
Diploma	-0.151# (0.080)	-0.453** (0.076)	-0.148# (0.081)	-0.454** (0.077)
Certificate: level 3 or 4	-0.159** (0.060)	-0.249** (0.081)	-0.153* (0.061)	-0.262** (0.081)
Certificate: level 1 or 2	-0.115 (0.104)	-0.283** (0.088)	-0.112 (0.104)	-0.290** (0.089)
Certificate: level unknown	-0.222 (0.139)	-0.061 (0.100)	-0.217 (0.140)	-0.060 (0.101)
Completed Year 12	-0.125# (0.071)	-0.316** (0.067)	-0.122# (0.071)	-0.317** (0.066)
Education level unknown	-0.186 (0.153)	-0.184 (0.166)	-0.194 (0.150)	-0.179 (0.165)
Still at school	0.169 (0.142)	-0.307* (0.133)	0.218 (0.142)	-0.192 (0.126)
Full-time tertiary student	0.103 (0.099)	-0.091 (0.094)	0.130 (0.098)	-0.069 (0.093)
Part-time tertiary student	-0.019 (0.062)	-0.087 (0.059)	-0.020 (0.062)	-0.088 (0.059)
Marital status [control = Married]				
Cohabiting	-0.002 (0.066)	-0.095 (0.065)	0.003 (0.066)	-0.109# (0.065)
Separated	0.071 (0.114)	-0.026 (0.103)	0.053 (0.117)	-0.006 (0.102)
Divorced	0.160 (0.102)	0.179* (0.083)	0.160 (0.103)	0.183* (0.085)
Widowed	-0.299 (0.238)	0.121 (0.166)	-0.183 (0.278)	0.112 (0.168)
Never married	-0.079 (0.058)	-0.177** (0.063)	-0.079 (0.058)	-0.172** (0.063)
Indigenous	0.361* (0.152)	0.237 (0.160)	0.364* (0.149)	0.248 (0.161)

**Table 7 (cont'd)**

<i>Variable</i>	<i>Specification I</i>		<i>Specification II</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
ESB immigrant	-0.000 (0.061)	-0.022 (0.061)	0.002 (0.062)	-0.031 (0.061)
NESB immigrant	-0.033 (0.066)	-0.112 (0.070)	-0.034 (0.066)	-0.124# (0.070)
English language problems	-0.258* (0.128)	-0.007 (0.140)	-0.267* (0.128)	-0.007 (0.142)
Location [control = Major city]				
Inner regional	0.118* (0.047)	0.145** (0.048)	0.118* (0.047)	0.130** (0.048)
Outer regional	0.115 (0.080)	0.159* (0.074)	0.120 (0.080)	0.149* (0.074)
Remote	0.278# (0.147)	0.362* (0.178)	0.280# (0.145)	0.384* (0.169)
Firm size [control = 5000 employees +]				
Less than 20 employees	0.159* (0.069)	0.139* (0.060)	0.168* (0.069)	0.154* (0.061)
20-99 employees	0.055 (0.063)	-0.008 (0.066)	0.064 (0.063)	0.006 (0.066)
100-499 employees	-0.021 (0.070)	-0.028 (0.076)	-0.017 (0.071)	-0.026 (0.076)
500-999 employees	0.132# (0.077)	-0.177* (0.084)	0.131# (0.078)	-0.164* (0.083)
1000-4999 employees	-0.003 (0.065)	0.111# (0.066)	-0.006 (0.065)	0.108 (0.066)
Firm size unknown	-0.008 (0.087)	-0.011 (0.072)	0.004 (0.088)	0.014 (0.072)
Public sector	0.054 (0.064)	0.070 (0.057)	0.051 (0.064)	0.069 (0.057)
Union member	-0.035 (0.047)	-0.171** (0.047)	-0.039 (0.047)	-0.178** (0.047)
Supervisor	0.106** (0.041)	0.011 (0.041)	0.096* (0.041)	0.009 (0.041)
Work schedule [control = Regular day or evening]				
Night shift	-0.327** (0.105)	-0.009 (0.132)	-0.306** (0.105)	0.002 (0.134)
Rotating shift	-0.022 (0.073)	-0.101 (0.074)	-0.027 (0.073)	-0.110 (0.075)
Split shift	-0.176 (0.176)	0.075 (0.175)	-0.178 (0.175)	0.019 (0.177)
On call	-0.080 (0.145)	-0.221 (0.160)	-0.078 (0.143)	-0.182 (0.161)
Irregular schedule	-0.189* (0.080)	0.021 (0.070)	-0.186* (0.080)	0.028 (0.070)

**Table 7 (cont'd)**

<i>Variable</i>	<i>Specification I</i>		<i>Specification II</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Home worker	0.129 (0.092)	0.133# (0.078)	0.128 (0.092)	0.161* (0.078)
Optimism	0.253** (0.034)	0.184** (0.037)	0.255** (0.034)	0.191** (0.037)
Importance of the home	0.007 (0.012)	0.003 (0.013)	0.010 (0.012)	0.003 (0.013)
Importance of employment	0.197** (0.016)	0.152** (0.016)	0.195** (0.016)	0.145** (0.016)
Importance of financial situation	-0.015 (0.014)	-0.003 (0.016)	-0.016 (0.014)	-0.002 (0.016)
Importance of local community	0.032** (0.009)	0.029** (0.010)	0.032** (0.009)	0.033** (0.010)
Importance of health	-0.007 (0.018)	0.005 (0.019)	-0.006 (0.018)	0.006 (0.019)
Importance of family	0.005 (0.018)	0.031 (0.021)	0.005 (0.018)	0.032 (0.021)
Importance of leisure	0.029* (0.013)	0.019 (0.014)	0.029* (0.013)	0.017 (0.014)
Importance of religion	0.013* (0.006)	0.013* (0.006)	0.014* (0.006)	0.013* (0.006)
State dummies	Yes	Yes	Yes	Yes
Occupation dummies	Yes**	Yes	Yes**	Yes
Industry dummies	Yes**	Yes**	Yes**	Yes**
Log-likelihood	-6178.7	-6049.4	-6176.3	-6051.5
Log-likelihood (0)	-6616.3	-6435.9	-6616.3	-6435.9
Likelihood ratio test (chi-squared)	873.1**	773.1**	881.6**	805.6**
Pseudo R-squared	0.232	0.210	0.233	0.209
N	3401	3357	3401	3357

- Notes: 1. \*\*, \* and # indicate statistical significance at the 1, 5 and 10 per cent levels, respectively, in a two-tailed test.
2. Estimated but not reported are the 10 ancillary or threshold parameters.
3. The pseudo R-squared measure is based on the size of the estimated (or unrestricted) log-likelihood function ( $L_u$ ) relative to the (restricted) log-likelihood ( $L_r$ ) when all parameters except a constant term are set to zero. The particular formula used here is:

$$[1 - e^{2(L_r - L_u)/n}] / [1 - e^{2L_r/n}]$$

The relationships with union membership are of interest in their own right. Given unions enhance wages and working conditions for its members, positive relationships might be expected. Negative relationships, however, are more common in previous research, especially if wage effects are separately controlled for, and are usually explained as the outcome of either voice effects (e.g., Freeman 1980) or selection effects wherein workers in the most hazardous and least desirable jobs are attracted to join unions (Borjas 1979).<sup>14</sup> The insignificant relationship for men found here might suggest that these negative effects are offset by the positive impact of unions on wages and conditions. It thus follows that the negative effect for women might reflect the lesser effectiveness of unions in representing women.<sup>15</sup>

We also uncover evidence that indigenous workers are more satisfied with their jobs than other workers. Given the high levels of unemployment within this group, we suspect that this result will reflect, at least in part, expectations being exceeded. Alternatively, this result could reflect unobserved characteristics that are correlated with job satisfaction (such as motivation).

Also of note, we find that the centrality of work in one's life has a major bearing on job satisfaction, with those who report that paid work is very important in their life being much more inclined to report that their jobs are satisfying. Alternatively, it is possible that this result reflects reverse causation, with the most satisfied also being more inclined to respond that employment is important in their lives.

Turning now to the variables at the center of this analysis, it is clear that employment arrangements do matter. Concentrating first on specification I, it can be seen that even after controlling for other individual and job characteristics, employees on fixed-term contracts emerge as most satisfied with their jobs while casual employees are found to be the least satisfied. Consistent, with the bivariate results presented earlier, the negative coefficient on casual employment is especially large for men, and is compounded further if employed through a labour-hire firm or temporary work agency. In contrast, among females, the negative coefficient on casual employment is not significant and there is no relationship at all with agency employment.

Specification I, however, assumes that the effects of employment contract status are independent of the effects of working hours. In specification II we relax this assumption and allow for the impact of employment status on job satisfaction to vary with hours worked. These results indicate that the negative associations between casual employment and job satisfaction are entirely restricted to those working 35 hours or more. Casual employees working part-time hours (less than 35 hours) are no less satisfied than permanent employees, including those working both part-time hours and standard hours (35 to 40 hours per week). Casual employees working full-time hours, especially males, however, report much lower levels of job satisfaction.

A guide to the magnitude of these effects is presented in Table 8. This table uses the results from specification II to calculate the predicted probabilities of an identical man and woman

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<sup>14</sup> For an Australian study into the relationship between union membership and job satisfaction, see Miller (1990).

<sup>15</sup> Such findings are consistent with the analysis of union wage effects reported in Wooden (2001c).

reporting different scores on the overall job satisfaction scales. The probabilities are calculated at the mean values of all other explanatory variables. Thus a male working standard hours on a permanent or ongoing basis has a 6.5 per cent probability of reporting 4 or less on the 0 to 10 job satisfaction scale and 31.6 per cent chance of reporting 9 or 10. By comparison, a male working similar hours but on a casual basis has almost twice the likelihood of being highly dissatisfied i.e., reporting less than 5 on the scale) and is only 70 per cent as likely to report very high satisfaction levels (9 or 10). A similar worker on a fixed-term contract, on the other hand, has only a 4 per cent probability of being highly dissatisfied and a 38.5 per cent probability of being highly satisfied.

**Table 8: Predicted Probabilities of Overall Job Satisfaction Scores**

	<i>P(0-4)</i>	<i>P(5 or 6)</i>	<i>P(7)</i>	<i>P(8)</i>	<i>P(9 or 10)</i>
<i>Men</i>					
Permanent: <35 hours	.098	.188	.201	.242	.272
Permanent: 35-40 hours	.065	.158	.196	.264	.316
Permanent: 41-48 hours	.067	.166	.203	.266	.298
Permanent: >48 hours	.062	.157	.198	.266	.316
Casual: <35 hours	.077	.164	.190	.248	.317
Casual: 35-40 hours	.120	.207	.211	.239	.223
Casual: 41-48 hours	.118	.223	.225	.241	.193
Casual: >48 hours	.149	.229	.216	.225	.180
Fixed-term: <35 hours	.043	.132	.184	.269	.373
Fixed-term: 35-40 hours	.041	.126	.179	.269	.385
Fixed-term: 41-48 hours	.048	.135	.182	.265	.370
Fixed-term: >48 hours	.053	.140	.188	.271	.349
<i>Women</i>					
Permanent: <35 hours	.055	.126	.142	.246	.430
Permanent: 35-40 hours	.062	.141	.154	.255	.387
Permanent: 41-48 hours	.069	.150	.159	.256	.365
Permanent: >48 hours	.104	.189	.177	.251	.278
Casual: <35 hours	.062	.136	.148	.248	.405
Casual: 35-40 hours	.076	.148	.154	.249	.373
Casual: 41-48 hours	.128	.199	.175	.239	.258
Casual: >48 hours	.081	.155	.154	.242	.368
Fixed-term: <35 hours	.039	.106	.132	.248	.475
Fixed-term: 35-40 hours	.049	.122	.142	.251	.437
Fixed-term: 41-48 hours	.103	.176	.166	.243	.312
Fixed-term: >48 hours	.075	.162	.167	.260	.335

## 7. Conclusions

Non-traditional forms of employment are pervasive in Australia. According to the data used in this analysis, almost one-quarter of Australian employees (leaving aside owner-managers) are employed on a casual basis and a further 9 per cent are employed on fixed-term contracts.

Moreover, it is very clear that the incidence of these types of employment has increased in recent decades (though the growth in the casual employment share at least, does appear to have slowed noticeably in recent years).

Such trends are of obvious concern for the union movement, with rates of union membership being relatively low among casual employees and, though to a lesser degree, among workers on fixed-term contracts. Perhaps more significantly, concerns have been expressed about the potential for the growth in the incidence of non-standard employment arrangements to undermine working conditions for other workers. Recent years have thus seen renewed efforts by the union movement to restrict the spread of casual employment and to eliminate many of the differences that distinguish casual from non-casuals. While progress has arguably been slow, there have been a number of noticeable victories. The Australian Industrial Relations Commission (AIRC), for example, in December 2000 agreed to a number of variations to the *Metal Engineering and Associated Industries Award 1998* which were intended to reduce the incidence of casual employment. Most significant here were an increase in the casual loading (to 25%) and providing 'regular' casuals the right to elect to switch to permanent status after six months employment. There was also a significant decision made in the Federal Court in late 2001 that ruled invalid regulations in the Workplace Relations Act that exempted many casuals from the Act's unfair dismissal provisions. Finally, the AIRC handed down a decision in May 2001 that extended entitlements to unpaid parental leave to casual employees who have worked regularly for an employer for at least 12 months.

The relative merit of these decisions is not at issue here. What is at issue is the assumption underlying the union campaign – that casual employment and other types of non-standard employment necessarily involve inferior types of employment. In this analysis we used self-reported data on job satisfaction to infer differences in the quality of employment and found that non-standard employment is not necessarily seen as undesirable by workers. First, it is very clear that workers on fixed-term contracts are much more satisfied with their jobs than other workers, both casual and permanent, and this finding is not affected by the inclusion of controls for personal and other job characteristics. Second, the lower levels of job satisfaction among casual employees are restricted to those working full-time employees and even then the size of the effect is only marked among men. This is of obvious importance given the overwhelming majority of casual jobs involve part-time hours and are held by women. Indeed, just 4 per cent of all employees (excluding owner-managers) are men working full-time hours on a casual basis in their main job.

In conclusion, the evidence presented in this analysis suggest that it is extremely misleading to characterise non-standard jobs as sub-standard jobs, and that initiatives intended to inhibit the diversity of employment options that are available to employers will in most instances not result in changes in working arrangements that will be unambiguously preferred by employees.

## Appendix A: Variable Definitions and Summary Statistics

Variable	Definition	Men		Women	
		Mean	Std. dev.	Mean	Std. dev.
Employment contract status:					
Permanent	Takes value 1 if reports being employed on a permanent or ongoing basis in main job, and 0 if otherwise.	.706	.456	.599	.490
Casual	Takes value 1 if reports being employed on a casual basis in main job, and 0 if otherwise.	.200	.400	.306	.461
Fixed-term contract	Takes value 1 if reports being employed on a fixed-term contract in main job, and 0 if otherwise.	.092	.288	.092	.289
Other	Takes value 1 if reports being employed on an arrangement other than permanent, ongoing, casual or fixed-term contract in main job, and 0 if otherwise.	.002	.048	.003	.057
Hours	Hours per week usually worked in main job	41.4	14.3	31.1	14.2
Hours categories:					
Less than 35 hours	Takes value 1 if usual weekly hours of work in main job are less than 35, and 0 if otherwise.	.163	.370	.484	.500
35-40 hours	Takes value 1 if usual weekly hours of work in main job are between 35 and 40, and 0 if otherwise.	.365	.4814	.323	.467
41-48 hours	Takes value 1 if usual weekly hours of work in main job are between 41 and 48, and 0 if otherwise.	.204	.403	.112	.316
49 hours or more	Takes value 1 if usual weekly hours of work in main job are 49 or more, and 0 if otherwise.	.268	.443	.081	.272
Agency worker	Takes value 1 if a labour-hire firm or temporary employment agency pays the wage, and 0 if otherwise.	.040	.193	.034	.182
Age	Age (years) at date of interview.	37.0	12.5	36.9	12.2
Health:					
Excellent	Takes value 1 if self-reported health status is excellent, and 0 if otherwise.	.224	.417	.246	.431
Very good	Takes value 1 if self-reported health status is very good, and 0 if otherwise.	.402	.490	.409	.492
Good	Takes value 1 if self-reported health status is good, and 0 if otherwise.	.285	.452	.266	.442
Fair or poor	Takes value 1 if self-reported health status is fair or poor, and 0 if otherwise.	.090	.286	.079	.270
Education:					
Post-graduate	Takes value 1 if highest educational qualification is a post-graduate qualification, and 0 if otherwise.	.088	.283	.100	.300
Degree	Takes value 1 if highest educational qualification is a Bachelor degree, and 0 if otherwise.	.136	.342	.186	.389
Diploma	Takes value 1 if highest educational qualification is a Diploma or Advanced diploma, and 0 if otherwise.	.083	.277	.097	.296

**Appendix A (cont'd)**

<i>Variable</i>	<i>Definition</i>	<i>Men</i>		<i>Women</i>	
		<i>Mean</i>	<i>Std. dev.</i>	<i>Mean</i>	<i>Std. dev.</i>
Certificate: L3 or L4	Takes value 1 if highest educational qualification is a Certificate Level III or IV, and 0 if otherwise.	.259	.438	.107	.309
Certificate: L1 or L2	Takes value 1 if highest educational qualification is a Certificate Level I or II, and 0 if otherwise.	.041	.198	.064	.245
Certificate: Level unknown	Takes value 1 if highest educational qualification is a Certificate but level unknown, and 0 if otherwise.	.026	.159	.049	.216
Completed Year 12	Takes value 1 if completed Year 12 but has not completed a post-school qualification, and 0 if otherwise.	.131	.337	.139	.346
Year 11 or below	Takes value 1 if has not completed Year 12 and has not completed a post-school qualification, and 0 if otherwise.	.224	.417	.233	.423
Education level unknown	Takes value 1 if education attainment unknown, and 0 if otherwise.	.013	.114	.024	.154
Still at school	Takes value 1 if still attending secondary school, and 0 if otherwise.	.033	.180	.041	.197
Full-time tertiary student	Takes value 1 if enrolled, on a full-time basis, in a course of study leading to a post-school qualification, and 0 if otherwise.	.051	.221	.052	.221
Part-time tertiary student	Takes value 1 if enrolled, on a part-time basis, in a course of study leading to a post-school qualification, and 0 if otherwise.	.103	.304	.097	.297
<b>Marital status:</b>					
Married	Takes value 1 if legally married, and 0 if otherwise.	.527	.499	.490	.500
Cohabiting	Takes value 1 if living with someone in a relationship but not legally married, and 0 if otherwise.	.118	.323	.128	.334
Separated	Takes value 1 if legally married but has separated from partner, and 0 if otherwise.	.021	.114	.037	.189
Divorced	Takes value 1 previously married but divorced and now single, and 0 if otherwise.	.036	.186	.067	.250
Widowed	Takes value 1 previously married but widowed and now single, and 0 if otherwise.	.003	.051	.016	.125
Never married	Takes value 1 if never married and not living with someone in a relationship, and 0 if otherwise.	.295	.456	.262	.440
Indigenous	Takes value 1 if of Aboriginal or Torres Strait Islander origin, and 0 if otherwise.	.013	.111	.016	.122
ESB immigrant	Takes value 1 if born overseas in the UK, Ireland, New Zealand, USA, Canada or Republic of South Africa, and 0 if otherwise.	.106	.306	.101	.301
NESB immigrant	Takes value 1 if born overseas, and not an ESB immigrant, and 0 if otherwise.	.127	.333	.120	.325

**Appendix A (cont'd)**

<i>Variable</i>	<i>Definition</i>	<i>Men</i>		<i>Women</i>	
		<i>Mean</i>	<i>Std. dev.</i>	<i>Mean</i>	<i>Std. dev.</i>
English language problems	Takes value 1 if interview had to be assisted because of English language difficulties or if interviewer assessed the respondent has having English language problems that affected the interview, and 0 if otherwise.	.036	.186	.026	.160
Location:					
Major city	Takes value 1 if classified to the major city band in the Accessibility / Remoteness Index for Australia (ARIA) (see ABS 2001), and 0 if otherwise.	.624	.485	.630	.483
Inner regional	Takes value 1 if classified to the inner regional band in ARIA, and 0 if otherwise.	.267	.442	.258	.437
Outer regional	Takes value 1 if classified to the outer regional band in ARIA, and 0 if otherwise.	.092	.290	.098	.297
Remote	Takes value 1 if classified to the remote area band in ARIA, and 0 if otherwise.	.017	.130	.014	.119
Firm size:					
Less than 20 employees	Takes value 1 if employer has less than 20 employees, and 0 if otherwise.	.230	.421	.245	.430
20-99 employees	Takes value 1 if employer has between 20 and 99 employees, and 0 if otherwise.	.169	.375	.156	.363
100-499 employees	Takes value 1 if employer has between 100 and 499 employees, and 0 if otherwise.	.112	.316	.087	.282
500-999 employees	Takes value 1 if employer has between 500 and 999 employees, and 0 if otherwise.	.069	.253	.062	.241
1000-4999 employees	Takes value 1 if employer has between 1000 and 4999 employees, and 0 if otherwise.	.113	.317	.085	.279
5000 employees +	Takes value 1 if employer has 5000 employees or more, and 0 if otherwise.	.230	.421	.268	.443
Firm size unknown	Takes value 1 if number of employees working for employer is unknown, and 0 if otherwise.	.077	.267	.098	.297
Public sector	Takes value 1 if employer is a government business enterprise or statutory authority or other type of government organisation, and 0 if otherwise.	.214	.410	.296	.456
Union member	Takes value 1 if a member of a trade union or employee association, and 0 if otherwise.	.322	.467	.292	.455
Supervisor	Takes value 1 if normally supervises the work of other employees, and 0 if otherwise.	.524	.499	.411	.492
Work schedule:					
Day / evening shift	Takes value 1 if works a regular day or evening shift, and 0 if otherwise.	.767	.423	.766	.423
Night shift	Takes value 1 if works a night shift, and 0 if otherwise.	.023	.149	.024	.152

**Appendix A (cont'd)**

<i>Variable</i>	<i>Definition</i>	<i>Men</i>		<i>Women</i>	
		<i>Mean</i>	<i>Std. dev.</i>	<i>Mean</i>	<i>Std. dev.</i>
Rotating shift	Takes value 1 if works a rotating shift, and 0 if otherwise.	.099	.299	.089	.285
Split shift	Takes value 1 if works a split shift, and 0 if otherwise.	.010	.099	.014	.119
On call	Takes value 1 if works on call, and 0 if otherwise.	.026	.159	.024	.152
Irregular schedule	Takes value 1 if works on an irregular schedule, and 0 if otherwise.	.076	.265	.083	.276
Home worker	Takes value 1 if has a formal arrangement with the employer to work at home, and 0 if otherwise.	.056	.230	.067	.250
Optimism	Additive scale constructed by averaging responses to the following three items, scored on a 5-point agree-disagree scale:				
	“You can make what you want of yourself in Australia”	3.295	.602	3.315	.562
	“Australia offers a great future for our children”				
	“I am glad to be living in Australia”				
Importance of the home	0-10 scale measuring how important the home in which people live is in their life.	7.925	2.008	8.121	1.818
Importance of employment	0-10 scale measuring how important and individual's employment and work situation is in their life	8.077	1.704	7.910	1.797
Importance financial situation	0-10 scale measuring how important an individual's financial situation is in their life.	8.006	1.645	8.078	1.630
Importance of local community	0-10 scale measuring how important an individual's local community is in their life.	5.341	2.338	5.645	2.229
Importance of health	0-10 scale measuring how important an individual's health is in their life.	8.747	1.396	9.024	1.230
Importance of family	0-10 scale measuring how important an individual's family is in their life.	9.372	1.216	9.639	.966
Importance of leisure	0-10 scale measuring how important an individual's leisure time is in their life.	7.858	1.785	8.051	1.627
Importance of religion	0-10 scale measuring how important an individual's religion is in their life.	3.791	3.442	4.693	3.465

Note: Also included in the ordered probit estimations but not reported here were dummy variables to capture differences across States, occupations (at the 2-digit or sub-major group level) and industry subdivisions.

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