

Temporary Employment and the Quality of Temporary Jobs

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Abstract

This paper discusses some of the insights that can be gained from Statistics New Zealand's Survey of Working Life (2008) on the profile of temporary workers, the reasons they give for working in a temporary job, their pay and conditions. In the March 2008 quarter, 9.4% of New Zealand employees were working in temporary jobs. The survey results reveal substantial differences between temporary and permanent employees in indicators of job quality such as pay, training rates, and working time patterns as well as substantial differences among the four main types of temporary employee (casual, fixed-term, temporary employment agency and seasonal). The paper summarises these results and then analyses the role of personal and job characteristics in contributing to the pay and training gaps that exist between temporary and permanent workers.

Introduction¹

This article presents some of the insights into temporary employment that can be gained from the 2008 Survey of Working Life (SoWL). The article begins by briefly describing the statistical profile of temporary employees and then focuses on three main questions. First, are most temporary workers working in a temporary job by choice or would they prefer a permanent job? Second, how do the pay and employment conditions of temporary employees compare with those of permanent employees? Three dimensions of pay and conditions are considered: hourly wages, training rates, and employment at non-standard times of the day or week. Third, what are the reasons for the differences in pay and conditions between temporary and permanent employees? To what extent are they due to factors that are not directly related to the duration of the employment contract, such as differences in the distribution of personal and job characteristics?

Past research on temporary work in New Zealand has yielded a picture of diversity, with temporary work incorporating both skilled, well-paid jobs and unskilled, poorly paid jobs. After interviewing employment agency temps in Auckland, Alach and Inkson (2003) reported that most of those interviewed preferred temporary work, felt that their prospects for securing continuing work were good, and saw temping as a useful strategy for both personal and professional development. The agency temps in their study reported high levels of job satisfaction in the main. In contrast, when Harris and Harvey (2007) examined working practices in five industries where casual employment is common (stevedoring, cleaning, home-based aged care, hotels restaurants and cafes, and call-centres), they identified a number of factors associated with poor job quality, including a lack of training opportunities, a lack of pathways into permanent work, shift work patterns disruptive to personal and family

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wellbeing, variability in hours or last-minute changes to workers' shifts or hours, insecurity regarding future work assignments, and difficulties in accessing sick or bereavement leave.

Previous research into temporary employment in New Zealand has been impeded by a lack of good statistical evidence. Prior researchers have either used qualitative methods to study particular occupations or industries (eg: Alach and Inkson, 2003; Harris and Harvey, 2007) or analysed evidence from small-scale surveys (eg: McLaren and Dupuis, 2006). Statistics New Zealand's Survey of Working Life gathered data on temporary work from a large and representative sample of employed New Zealanders, providing more reliable estimates of the numbers and characteristics of temporary workers than previously available. The large sample size allows comparisons to be drawn between different types of temporary work as well as between temporary and permanent workers. Although the survey did not gather information on all dimensions of job quality it covered many of the most important dimensions. The survey was designed to be repeated on a regular basis, at intervals of around three years. The development of the Survey of Working Life has made an important contribution to the evidence base that future research into temporary employment can draw on.

The paper is structured as follows: essential background information on the survey and the way in which temporary employment was defined and measured. The next section briefly describes the incidence of each of the main types of temporary and employment and the characteristics of temporary workers, followed by the reasons that were given for working in temporary jobs and whether temporary workers would prefer permanent employment. There is, then, a comparison of the wages, training rates and working time patterns of temporary and permanent workers. This is followed by a discussion of factors that contribute to the lower pay and lower training rate of temporary employees, and assessment of the role of differences in the distribution of other personal and job characteristics. The article ends with a brief conclusion

The Survey and its Definition of Temporary Employment

The Survey of Working Life is a Statistics New Zealand survey that gathers job-related data from a representative sample of employed New Zealanders through a supplement to the Labour Force Survey. All respondents to the March 2008 quarter Household Labour Force Survey who were employed in the reference week were asked the SoWL questions. Responses were obtained from approximately 14,500 individuals. Statistics New Zealand intends to repeat the survey periodically (every few years) so that changes in employment arrangements and conditions of employment can be monitored.

The concept of temporary work is used in the survey to cover all types of short-term work that are undertaken by employees, including fixed-term jobs, casual jobs, seasonal jobs, and jobs arranged through temporary employment agencies. A job is defined as temporary if the worker does not have any expectation of continuous long-term employment. A temporary employee can be an employee who has been hired for a specific time period or until the completion of a specific project; someone who is temporarily replacing another worker who is absent; someone who is filling a seasonal job; or someone who is employed only when needed by their employer. This definition includes casual employment and seasonal employment. Jobs undertaken by people who are self-employed are *not* included in the definition.

Each employee in the survey was asked if they were employed on a permanent basis (focusing on their main job if they held more than one job). This question was worded as follows:

A permanent employee is guaranteed continuing work. They can stay in their job until they decide to leave or their employer makes them redundant. In your job, are you a permanent employee?

Employees who said that their job was *not* permanent were then asked a series of additional questions designed to identify the nature of their employment relationship so that they could be classified as a fixed-term employee, a casual worker, a temporary employment agency worker, or in some other type of employment relationship.² All employees, including those who said that their job was permanent, were also asked whether their job was only available at certain times of the year, ie: seasonal. People who initially said that their job was permanent but later indicated that their job was seasonal were classified as temporary because seasonal jobs do not provide continuous work throughout the year. The full set of questions used to identify and classify temporary employees is given in Appendix 1.

Previous qualitative research in New Zealand has shown that many temporary employees do not have a good understanding of the terms and conditions of their employment or the meaning of terms like ‘casual’.³ The SoWL did not ask respondents to choose between the different types of temporary work and instead classified them using their responses to more concrete questions such as ‘were you hired to temporarily replace another worker?’ However, this strategy did not eliminate the potential for confusion, which means there is likely to be some measurement error in the survey’s estimates of temporary employment numbers.

Numbers and Characteristics of Temporary Workers

Approximately one in ten, or 9.4%, of employees were working in temporary jobs when interviewed in the March 2008 quarter.⁴ One in twenty (4.9%) were employed on a casual basis, 2.3% were employed on a fixed-term contract, and 0.7% worked for a temporary employment agency. The remaining 1.5% could not be classified to a particular type of temporary job contract using the information collected in the survey. The majority of this latter group were seasonal employees who initially said they were permanent employees but later gave a ‘yes’ response when asked if their job was only available at certain times of the year, ie: seasonal.⁵ In total, 2.7% of employees (and 28% of temporary employees) were identified as being seasonal workers through the seasonal work question.

The OECD has compiled cross-country data on the percentages of employees who are employed in temporary jobs. In 2009, the percentage of employees who worked in temporary jobs was in the 5% to 15% range in the majority of OECD countries (OECD, 2011). This is similar to the cross-country range identified in earlier work by the OECD (OECD, 2002). The SoWL estimate of 9.4% puts New Zealand roughly in the middle of the OECD distribution.

Table 1: The Incidence of Temporary Work: Variations by Demographic Group

	Type of temporary work				All seasonal employees	All temporary employees
	Casual	Fixed-term	Temp agency worker	Other (mainly seasonal & not further defined)		
<i>Proportion of employees whose main job was temporary</i>						
All employees	4.9	2.3	0.7	1.3	2.7	9.4
Gender						
Male	4.3	1.7	0.4	1.5	2.9	8.2
Female	5.5	2.9	1.0	1.0	2.4	10.7
Age group (years)						
15–24	10.9	2.8	1.0	2.1	5.3	17.3
25–34	2.9	2.8	0.8	1.1	1.8	7.7
35–44	3.4	2.2	0.5	0.9	2.1	7.1
45–54	2.8	1.8	0.7	1.3	2.1	6.9
55–64	4.0	1.8	S	1.0	2.0	7.5
65+	11.6	2.4	S	S	3.6	16.6
Gender by age group (years)						
Males, 15-24	11.4	3.0	0.7	3.0	6.5	18.4
Males, 25-54	2.0	1.3	0.3	1.1	1.7	4.8
Males, 55+	5.3	1.5	S	1.7	3.2	9.3
Females, 15-24	10.3	2.5	1.4	1.1	4.1	15.9
Females, 25-54	4.2	3.3	1.0	1.1	2.2	9.7
Females, 55+	5.2	2.2	S	S	1.3	8.5
Ethnic group						
European only	4.7	2.4	0.5	1.2	2.5	9.0
Māori only	6.0	2.1	1.4	2.0	5.2	11.5
European / Māori	4.4	S	S	2.4	3.4	8.9
Pacific peoples only	3.7	1.9	2.3	1.8	3.8	9.7
Asian only	6.2	2.6	1.1	S	1.1	10.7
Other groups	5.2	2.4	S	S	S	10.8
Highest qualification						
No qualification	6.4	1.2	0.9	2.4	4.6	11.0
School Certificate/NCEA Level 1	5.8	1.2	S	1.8	3.3	9.4
Higher school qualification	7.2	2.4	1.0	1.5	3.6	12.7
Vocational or trade qualification	3.7	2.1	0.5	1.0	2.0	7.5
Degree	3.9	4.4	0.7	S	1.3	9.4

S = Suppressed due to low sample size.

The incidence of temporary employment by gender and age group is summarised in table 1. The numbers indicate that female employees are more likely than male employees to be working in temporary jobs: their rate was 11% compared with 8% for men. Temporary employment is substantially more common among young employees than most other age groups, with the exception of 65 years and over. Seventeen percent of young employees (aged under 25) and 17% employees the 65 plus age group were employed in temporary jobs, compared with just 7–8% of employees in the 25-64 year age groups.

Although the incidence of temporary employment is similar for men and women in the 15-24 and 55 plus age groups, it diverges substantially in the intervening years. Female employees in the 25-54 year age range were about twice as likely to be in temporary work as prime-aged male employees (10% compared with 5%). Detailed analysis of the incidence rates by five year age group indicated that the gender gap in the likelihood of working in a temporary job was largest in the 35–39 and 40–44 year age groups, where 3-4% of male employees but 10-11% of female employees held temporary jobs.

Māori employees were more slightly likely to be working in temporary jobs than workers of other ethnic groups (11.5% compared with 9.0% of Europeans and 8.9% of Māori/European). The results for people with different levels of educational qualification indicate that the relationship between education and the incidence of temporary work is complex. The proportion in temporary jobs is relatively high among employees with no qualifications but it is also relatively high among workers with degrees. It is lower for employees at intermediate educational levels.

The incidence patterns also differ for different types of temporary work. Young adults are particularly likely to be employed in casual jobs while prime-aged employees are more likely to be in a fixed-term arrangement. Employees with post-school qualifications are also more likely to be working in a fixed-term job than those with lower levels of education. The incidence of fixed-term employment was 4.4% for employees with a degree but only 1.2% for employees with no qualifications.

The characteristics of temporary employees and their jobs are summarised in Tables 2 and 3. In 2008, slightly over half of all temporary employees were female. More than one-third was youth workers and another one-third was women aged between 25 and 54. Prime-aged men made up about 17%, and older men and women comprised the remainder, around 15%. Other analyses of the survey data showed that compared with permanent employees, temporary employees were significantly younger (by 4 years on average), more likely to be living in a minor urban area or a rural location, less likely to be married or living with a partner, less likely to have dependent children, and less likely to hold an educational qualification (Dixon, 2009). Some of these differences were relatively small.

Table 2: Personal characteristics of temporary and permanent employees

	Type of temporary work				All seasonal employees	Temporary employees	Permanent employees	All employees
	Casual	Fixed-term	Temp agency worker	Other (mainly seasonal & not further defined)				
<i>Percentages unless indicated otherwise</i>								
Gender								
Male	45.3	37.6	30.3	61.7	55.3	44.4	51.7	51.1
Female	54.7	62.4	69.7	38.3	44.7	55.6	48.3	48.9
Age								
Mean age	34.6	36.5	35.0	36.9	35.1	35.5	39.4	39.0
Age group (years)								
15-24	42.4	22.7	28.7	31.5	38.0	34.9	17.3	19.0
25-34	12.8	26.4	24.4	17.6	14.2	17.5	21.8	21.4
35-44	15.8	21.6	15.8	15.3	17.9	17.0	23.1	22.5
45-54	12.4	16.7	23.3	22.3	16.6	15.7	22.0	21.4
55-64	10.7	10.0	S	9.8	9.9	10.4	13.4	13.1
65+	6.0	2.6	S	S	3.5	4.5	2.4	2.6
Gender by age group (years)								
Males, 15-24	23.2	13.1	10.7	23.6	24.0	19.5	8.9	9.9
Males, 25-54	13.6	19.3	16.6	27.9	21.7	17.0	34.9	33.2
Males, 55+	8.5	5.2	S	10.3	9.5	7.9	7.9	7.9
Females, 15-24	19.2	9.7	18.0	7.9	13.9	15.4	8.4	9.1
Females, 25-54	27.3	45.3	46.8	27.3	27.0	33.1	32.0	32.1
Females, 55+	8.2	7.4	S	S	3.8	7.1	7.8	7.7
Ethnic group								
European only	72.3	77.7	52.1	69.8	71.3	71.9	75.0	74.7
Māori only	6.3	4.7	10.2	8.0	10.1	6.4	5.1	5.2
European / Māori	4.4	S	S	8.9	6.1	4.6	4.8	4.8
Pacific peoples only	2.8	3.0	12.6	5.3	5.4	3.9	3.7	3.7
Asian only	10.5	9.2	12.8	S	3.3	9.4	8.1	8.3
Other groups	3.6	3.5	S	S	S	3.9	3.3	3.4
Highest qualification								
No qualification	22.9	8.8	23.1	33.1	30.3	20.5	17.1	17.5
School Certificate/NCEA Level 1	9.5	4.2	S	11.3	9.9	8.0	7.9	8.0
Higher school qualification	20.9	14.5	20.5	16.1	19.1	19.2	13.6	14.1
Vocational or trade qualification	24.7	29.7	22.2	25.7	24.7	26.0	33.3	32.5
Degree	16.9	39.5	21.6	S	10.0	20.9	20.9	20.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	600	280	90	180	370	1,170	10,740	11,940
Estimated population size (000s)	85.1	40.3	12.0	22.3	46.5	163.6	1,575.2	1,743.2

S = Suppressed due to low sample size.

Table 3: Job Characteristics of Temporary and Permanent Employees

	Type of temporary work				All seasonal employees	Temporary employees	Permanent employees	All employees
	Casual	Fixed-term	Temp agency worker	Other (mainly seasonal & not further defined)				
<i>Percentages unless indicated otherwise</i>								
Usual hours worked per week (main job)								
Mean	22.0	34.2	28.5	34.9	32.7	27.4	37.6	36.6
0-19	46.6	18.1	30.3	21.0	24.3	34.3	11.4	13.5
20-39	28.2	27.2	27.7	23.5	22.8	27.1	22.1	22.6
40-49	16.5	41.7	35.4	40.0	38.2	27.8	51.7	49.4
50+	4.2	12.6	2.3	11.9	12.3	7.4	14.0	13.4
Part-time (<30 hours)	61.4	29.4	36.9	32.4	33.0	47.6	19.9	22.5
Full-time (30 hours+)	33.9	70.0	58.7	64.3	64.6	48.9	79.3	76.4
Occupation								
Legislators, administrators and managers	2.2	7.7	S	S	S	3.3	13.2	12.3
Professionals	9.7	30.1	16.7	S	5.7	14.5	18.0	17.7
Technicians and associate professionals	10.8	20.3	12.0	9.6	11.1	13.0	12.0	12.1
Clerks	10.7	17.7	26.4	S	4.9	12.5	14.2	14.0
Service and sales workers	29.1	5.5	14.4	12.1	10.8	19.9	16.7	17.1
Agriculture and fishery workers	11.3	4.5	S	22.3	27.4	10.4	3.6	4.3
Trades workers	3.7	4.2	S	S	S	3.8	9.1	8.6
Plant and machine operators and assemblers	7.4	5.9	S	34.5	26.0	11.0	8.2	8.4
Elementary occupations	14.8	4.1	14.0	12.3	11.4	11.5	4.9	5.6
Employer's business type								
Private sector	61.1	42.5	70.9	71.5	67.5	59.0	67.3	66.5
Central government	13.7	34.4	S	9.8	12.6	17.6	15.7	15.9
Local government	1.8	4.1	S	S	S	2.1	2.0	2.0
Not for profit sector	6.4	9.6	10.7	11.5	8.4	8.2	6.9	7.0
Not classified	17.0	9.4	10.1	7.2	10.3	13.1	8.0	8.5
Size of enterprise								
1-19 employees	41.0	33.5	23.4	37.8	36.1	37.4	39.0	38.9
20-99 employees	13.9	18.2	18.0	20.5	18.5	16.3	20.8	20.3
100-499 employees	13.2	14.3	31.1	8.6	9.7	14.1	15.3	15.2
500 employees or more	14.7	24.5	18.9	25.2	25.2	19.1	16.9	17.1
Not classified	17.1	9.4	8.7	7.8	10.5	13.1	8.0	8.5
Job tenure								
Mean (years)	2.3	2.5	1.2	6.4	4.1	2.9	5.9	5.6
Median (years)	0.7	0.8	0.4	3.1	1.8	0.9	3.0	3.0
Less than 6 months	46.3	42.4	51.2	21.5	36.9	41.7	13.2	15.9
6 months to less than 1 year	9.5	14.2	11.9	4.0	4.4	9.9	7.9	8.1
1 to less than 3 years	23.6	20.5	25.4	24.1	22.4	23.0	24.8	24.7
3 to less than 10 years	15.2	15.0	11.6	28.5	23.0	17.0	34.2	32.6
10 years or more	5.4	7.8	0.0	21.6	13.1	8.2	19.7	18.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	600	280	90	180	370	1,170	10,740	11,940
Estimated population size (000s)	85.1	40.3	12.0	22.3	46.5	163.6	1,575.2	1,743.2

S = Suppressed due to low sample size.

Roughly half of all temporary employees worked part-time hours compared with only 20% of permanent employees. This is one of the most striking of the differences between temporary and permanent employees in job characteristics (see Table 3). Among temporary workers, casual workers were the subgroup most likely to be employed on a part-time basis: 61% were working part-time hours. Fixed-term employees were the group most likely to be employed full-time (70% worked full-time hours).

Although temporary workers were located in all of the main occupational groups, compared with permanent employees they were more likely to be working as service and sales workers, agriculture and fishery workers, plant and machine operators and assemblers, or in elementary occupations. They were less likely to be employed in management or trades occupations. Only 3% of temporary employees were classified as managers, compared with 13% of permanent employees.

The available data on business type show that 59% of temporary employees were employed by private sector firms, which is substantially lower than the share of permanent employees (68%). Temporary employees were more likely to work for central government or non-profit organisations. A significant group of employees with fixed-term employment arrangements work for central government, particularly in the education industry.

Overall, there was little difference between temporary and permanent employees in their distribution across firms of different sizes once the higher non-classification rate of temporary employees is taken into account. However, fixed term and temporary agency employees were more likely to work in large firms while casual and seasonal employees more likely to work in small firms.

The survey asked respondents how long they had worked for their employer in their current main job. The intention of the question was to measure the duration of the employment relationship rather than the duration of the last episode of work. Most temporary workers said they had been in their jobs for less than one year (52%), but a significant percentage had worked for one to three years (23%) or for three or more years (25%). While the majority of casual, fixed-term and temporary agency workers had worked for their current employer for less than one year, seasonal workers had a noticeably different tenure pattern. A higher proportion (36%) had worked for their employer for three or more years. (The equivalent figure for permanent employees was 54%). These results suggest that a significant proportion of seasonal employees were in long-term relationships with their employer and had worked for multiple seasons.

Preferences for Temporary Employment

Do people work in temporary jobs because they prefer a temporary employment arrangement or simply because they are not able to obtain a suitable permanent job? The survey included two questions that shed some light on this question.

First, temporary employees were asked their reasons for undertaking temporary or seasonal work. The question was open-ended, and multiple responses were recorded, if given. The results are summarised in Table 4. The responses were diverse with no single reason dominating. Thirteen percent indicated that they were working in a temporary job because they were not able to find a permanent job, or said they hoped or expected their temporary

job to become permanent. Nine percent indicated that they worked in a temporary job for family reasons, for example to manage childcare responsibilities, or because of certain family obligations or family circumstances. Twenty-four percent said they worked in a temporary job because they were studying or wanted to gain work experience. Fifteen percent gave lifestyle reasons, such as only wanting to work for a short period of time, or enjoying the variety that short-term jobs offer. Nine percent cited financial reasons, such as the money being better in their temporary job. One percent referred to health limitations as a reason for working in a temporary job. These results suggest that perhaps 13% of temporary workers were in temporary jobs on an ‘involuntary’ basis (the first group identified above). The true percentage could be higher than 13%, however, if some of the people whose responses couldn’t be classified (34%) were also working in temporary jobs primarily because they weren’t successful in finding a suitable permanent job.

Table 4: Reasons for doing temporary work and preferences for permanent work

	Type of temporary work				All seasonal employees	Temporary employees
	Casual	Fixed-term	Temp agency worker	Other (mainly seasonal & not further defined)		
<i>Percentages</i>						
Reasons for doing temporary work						
Family reasons	9.7	7.7	14.5	6.7	7.6	9.2
Educational reasons	33.0	14.2	26.0	6.7	16.9	24.1
Health limitations	2.1	S	S	S	S	1.4
Lifestyle reasons	13.9	13.0	17.0	19.5	15.5	14.9
Financial reasons	6.9	5.8	S	22.4	17.6	8.5
Involuntary (only type of work available, hopes job becomes permanent)	12.0	14.8	16.4	8.3	11.7	12.6
Other reasons	27.7	41.9	29.4	46.5	38.8	34.0
Would prefer a job that is permanent/ongoing						
All temporary employees	36.5	49.1	47.2	33.5	35.6	40.1
Males	34.6	49.6	54.4	38.9	37.8	39.7
Females	38.0	48.8	44.0	25.0	32.9	40.4
15-24 years	37.0	39.9	46.6	36.7	40.7	38.4
25-54 years	44.2	55.0	48.5	35.7	35.2	47.2
55 years and over	16.4	35.5	S	S	22.7	20.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	600	280	90	180	370	1,170
Estimated population size (000s)	85.1	40.3	12.0	22.3	46.5	163.6

S = Suppressed due to low sample size.

Temporary employees were then asked if they would prefer to have a permanent job. Forty percent responded 'yes' to this question; 53% said they would prefer to continue doing temporary or seasonal work, and approximately 7% did not know or give a response. The proportion who said they would prefer a permanent job (40%) could be interpreted as an alternative measure of 'involuntary' temporary work, although this interpretation is debateable as it is unclear how the question was answered by respondents. Some may have thought about their ideal employment arrangement rather than the one they would actively seek at present, given their current circumstances.

Overall, similar proportions of men and women in temporary jobs said they would prefer to have a permanent job and almost half of all fixed-term employees and temporary agency workers said the same. The proportion who said they would prefer a permanent job was much lower among casual and seasonal employees (37% and 36% respectively). In most types of temporary work, prime-aged adults were more likely than young adults or older adults to say that they would prefer a permanent job.

A regression model was estimated to identify the personal and job characteristics that are most strongly associated with the preference to work in a permanent job, holding the effects of other characteristics constant. The results (not shown in this paper) indicate that age, full-time hours and job tenure are significant predictors of wanting a permanent job. Teenagers, those aged 60 or over, those who were working on a part-time basis, and those with longer tenure in their jobs, were significantly less likely to say they would prefer a permanent job than employees in the prime age groups, the full-time employed, and those with shorter job tenure. There were no statistically significant differences between casual, fixed term, agency and seasonal workers in the likelihood of wanting permanent work, suggesting that the type of temporary job does not have a major impact once differences in personal characteristics are held constant.⁶

In other countries, temporary workers have tended to report a lower level of job satisfaction than permanent employees (Booth, Francesconi and Mark, 2002; Wooden and Warren, 2003).⁷ In the SoWL, this was also the case, but the differences were too small to be consequential and were not statistically significant. Eighty-one percent of temporary workers and 84% of permanent workers said they were satisfied or very satisfied with their job. Six percent of temporary workers said they were dissatisfied or very dissatisfied, compared with 5% of permanents.

In summary, the results indicate that preferences for temporary work vary strongly by age. Prime-aged adults (those aged from 25–54 years) were almost equally divided between preferring temporary work and wanting a permanent job. The vast majority of the older adults (55 years and over) and more than half of the younger adults (15–24 years) who held temporary jobs said they preferred temporary work.

Pay and Employment Conditions

In this section we discuss the employment outcomes of temporary workers in terms of three job quality indicators: pay rates, training, and the requirement to work at non-standard times of the day or week.

Table 5: Employment outcomes of temporary and permanent employees

	Type of temporary work				All seasonal employees	Temporary employees	Permanent employees	All employees
	Casual	Fixed-term	Temp agency worker	Other (mainly seasonal & not further defined)				
<i>Dollars</i>								
Hourly earnings								
Mean (\$)	16.0	23.7	21.2	18.0	16.6	18.5	23.4	22.9
Mean - males (\$)	16.0	24.0	20.2	18.6	17.4	18.4	25.6	25.0
Mean - females (\$)	16.0	23.6	21.6	16.8	15.6	18.6	20.9	20.7
Median (\$)	13.1	19.5	15.5	17.0	15.0	15.0	19.2	19.0
<i>Percentages</i>								
Hourly earnings								
Below \$15 per hour	54.6	24.5	35.9	40.6	42.9	43.5	24.3	26.1
\$15-\$25 per hour	26.0	36.7	33.9	38.4	36.1	31.2	40.4	39.5
\$25 or more per hour	8.8	28.7	20.7	9.1	8.0	14.6	27.2	26.0
Earnings not specified	10.7	10.2	9.5	11.9	13.0	10.7	8.1	8.4
Participation in employer-funded education or training during the past 12 months								
All	12.5	32.3	9.8	17.0	13.7	18.0	31.9	30.5
Males	8.3	22.2	S	13.4	8.8	12.1	33.1	31.3
Females	15.9	38.4	S	22.9	19.9	22.7	31.5	30.5
Time spent on employer-funded education or training during the past 12 months								
1 day or less	3.0	12.2	S	5.7	5.7	5.5	6.6	6.5
2 to 5 days	6.4	14.9	S	7.3	5.2	8.7	15.0	14.4
6 days or more	3.1	5.2	S	S	2.9	3.8	10.3	9.7
Usual working time pattern (all jobs)								
Usually works all hours at standard times of working week	53.6	70.6	75.2	44.8	53.2	58.2	67.1	66.2
Usually works some hours at non-standard times of working week	42.7	27.3	16.9	54.0	44.7	38.6	31.5	32.2
No usual working time pattern	3.4	S	S	S	2.2	3.1	1.5	1.6
Worked at non-standard times in the last 4 weeks								
Evening work (7-11pm)	33.3	31.7	15.8	18.3	22.6	30.2	30.1	30.1
Night work (11pm-5am)	8.4	8.8	S	6.5	11.6	9.5	10.1	10.0
Early morning work (5-7am)	10.1	5.0	10.6	30.4	25.7	13.7	14.8	14.7
Weekend work	52.8	40.3	30.3	64.4	58.6	49.9	46.4	46.7
Total who worked at a non-standard time	63.4	48.9	42.6	77.7	70.2	60.3	55.5	55.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	600	280	90	180	370	1,170	10,740	11,940
Estimated population size (000s)	85.1	40.3	12.0	22.3	46.5	163.6	1,575.2	1,743.2

S = Suppressed due to low sample size.

There is a substantial pay gap between temporary and permanent employees. In the March 2008 quarter, the average hourly earnings of temporary employees were \$18.50 per hour, which was just 79% of the average hourly earnings of permanent employees (\$23.40). However, there was considerable variation in earnings across the different types of temporary work (see Table 5). Casual employees had the lowest mean hourly earnings (\$16.00 per hour). Fixed-term employees had the highest mean hourly earnings (\$23.70 per hour) and were on average paid slightly more than permanent employees.

Measures of the proportion of workers with relatively low and relatively high pay are also shown in Table 5. Forty-four percent of temporary employees earned less than \$15 per hour, compared with 24% of permanent employees. Casual workers were the lowest paid group of temporaries, with 55% earning less than \$15 per hour and only 9% earning \$25 or more per

hour. The earnings distribution of fixed-term employees was similar to that of permanent employees.

Temporary employees were much less likely than permanent employee to have received training at work. Just 18% of temporary employees, compared with 32% of permanent employees, said they had undertaken some employer-funded study or training in the last twelve months.⁸ Among those who *had* received employer-funded training, temporary employees were more likely than permanent employees to have trained for one day or less, and less likely to have trained for 6 days or more. Again, there were substantial differences across the different types of temporary employment. Fixed-term employees were most likely to have studied or trained: their participation rate was similar to that of permanent employees. The education and training rate was lowest among casual workers (13%) and temporary agency workers (10%). Women working in temporary jobs were substantially more likely to have received employer-funded study or training than men, reflecting differences in age composition, skills and job mix.

Because training was measured over the extended period of one year, any differences in job tenure and labour force participation patterns are likely to have caused differences in training rates. If casual employees were, on average, employed for fewer weeks of the previous year than other types of employee, for example, this would directly reduce their opportunities to receive employer-funded training, leading to a lower average training rate.

Turning to working time patterns, the survey results show that casual and seasonal employees were more likely than permanent employees to say that they usually did at least some of their work outside the conventional working week (defined as 7am to 7pm, Monday to Friday). This was true for 43% of casuals and 45% of seasonal workers. In addition, casual and seasonal workers were more likely than permanent workers to have worked at non-standard times, on one or more occasions, during the last month.

When specific non-standard times are considered, it appears that casual workers were more likely than permanent employees to have worked during the evening or on the weekend, and seasonal workers were more likely to have worked in the early morning or on the weekend during the last four weeks. In contrast, fixed term and temporary agency employees were *less* likely than permanent employees to have worked on the weekend, and they had similar or lower rates of evening, night and early morning work.

Overall, there are substantial differences between temporary and permanent employees in wage rates, training participation and working time patterns, but also substantial differences in pay and conditions between the different types of temporary work.

Reasons for the Differences in Pay and Training Outcomes

Although temporary employees have quite different employment outcomes than permanent employees, it is unclear whether the differences are due to the temporary nature or short-term duration of the employment relationship. Temporary workers differ from permanent workers on a variety of other characteristics that are correlated with differences in skills and earnings potential, such as age, work experience, employment continuity, education, occupational skills, and hours of work. They also differ in their distribution across different types of jobs and firms.

To estimate the wage penalty or wage premium that is associated with temporary employment, a common approach is to use a statistical model to adjust the actual wage gap between temporary and permanent employees for the effects of any differences in worker and job characteristics that might be contributing to the difference in earnings. The 'residual' wage gap – that remaining after the effects of differences in employee and job characteristics have been adjusted for – can then be interpreted as the difference in pay that is due to the temporary nature of the job. However, due to the fact that temporary and permanent employees are likely to differ on a number of dimensions that are not normally measured in surveys (and cannot be included in the adjustment), this approach has some significant limitations.

Recent studies of the earnings and training rates of temporary workers have used longitudinal data sources containing evidence on the changes in pay that employees experience when they move between temporary and permanent jobs. These longitudinal data sources offer greater potential for isolating the effects of temporary employment from the effects of other correlated factors than is offered by cross-sectional surveys like the SoWL. If there is a pay penalty for temporary work, for example, individuals who move from permanent to temporary jobs should on average suffer pay reductions while individuals who move from temporary to permanent jobs should, on average, experience pay increases. If some types of temporary jobs offer higher pay rates, it should also be possible to identify the size of those wage premiums from the evidence on the pay changes that occur when individuals move between jobs.

An article by Del Bono and Weber (2008) which examines the wages of seasonal employees in Austria is a good example of recent research using this analytical strategy. The seasonal workers in their sample earned 3% less than non-seasonal workers on average. After taking other factors into account through their longitudinal regression model, however, Del Bono and Weber estimated that the seasonal workers actually earned an 11% wage premium (relative to what they would have earned in non-seasonal jobs).

The scope for understanding and measuring the factors driving the pay and training gaps between temporary and permanent workers in New Zealand is limited by the nature of the currently available data, but some useful insights can still be gained.

Hourly earnings

The contribution of demographic, educational, and job characteristics to the temporary-permanent gap in average hourly earnings was explored by estimating a series of earnings regressions. The dependent variable was the log of the individual's hourly wage rate. Initially, a regression model was estimated, which included an indicator for temporary job status (to measure the relationship between temporary employment and earnings), and measures of a range of individual characteristics, including age, ethnicity, parental status, immigrant status, geographical location, and highest educational qualification. These variables were included to adjust for any differences in personal characteristics that might lead to pay differences in the absence of temporary employment. In a second regression model, measures of job and firm characteristics were also included as control variables, including hours of work, occupation defined at one-digit level, industry defined at one-digit level, business ownership type (defined using indicator variables for public sector and non-profit organisations), and firm size. Controls for the individual's job tenure were not included

because job duration is likely to be determined jointly with temporary job status. Full details of the regression models are given in Dixon (2009).

Table 6: Estimates of the wage gap between temporary and permanent employees

	Unadjusted difference in log wage (temp-permanent)	Model 1 - Controls for personal characteristics		Model 2 - Controls for personal and job characteristics	
		Coefficient	Std Error	Coefficient	Std Error
Males					
All temporary workers	-0.301	-0.107 ***	0.028	-0.007	0.022
Casual	-0.414	-0.159 ***	0.039	-0.023	0.029
Fixed term	-0.090	-0.022	0.057	0.012	0.050
Seasonal	-0.312	-0.058	0.037	0.032	0.033
Females					
All temporary workers	-0.130	-0.072 ***	0.018	-0.022	0.017
Casual	-0.254	-0.143 ***	0.022	-0.065 ***	0.022
Fixed term	0.114	0.034	0.035	0.040	0.031
Temporary agency	-0.043	0.021	0.067	-0.018	0.067
Seasonal	-0.239	-0.096 ***	0.030	-0.029	0.032

* Significant at the 90 percent confidence level. **Significant at the 95 percent confidence level.

***Significant at the 99 percent confidence level.

Table 6 shows the main estimates obtained.⁹ The first column of the table shows the unadjusted or 'raw' log wage gap between all temporary employees, or a particular subgroup of temporary workers, and permanent employees. The numbers are negative because working in a temporary job is associated with lower wages. The second column gives the estimated log wage difference that is associated with temporary work once the effects of differences in individual characteristics have been taken into account. Controlling for personal characteristics dramatically reduces the size of the temporary-permanent gap in log hourly earnings. For instance, there is a 64% reduction in the wage gap estimated for all male temporary workers (which declines from 30% to approximately 11%), and a 44% reduction in the wage gap estimated for all female temporaries (which declines from 13% to 7%). Temporary employees are younger and less qualified than permanent employees on average, and controlling for these and other differences in personal characteristics reduces the wage 'penalty' that is associated with the temporary work indicators in the regression estimates.

The results in the third column of Table 6 show that controlling for job characteristics as well as personal characteristics further reduces the estimated wage penalty associated with temporary work. For all temporary and most subgroups of temporary employees, there is no longer a statistically significant difference between the average wages of temporary and permanent employees. Female casual workers are the exception to this pattern: they are estimated to earn approximately 6.5% less than females in permanent jobs after taking the effects of individual and job characteristics into account.

This analysis indicates that the temporary-permanent gap in average hourly wages can be largely attributed to differences in measured demographic, educational, and job characteristics. The main exception is that we continue to find that a small wage penalty is associated with casual work for women. However, our analysis has not been able to take account of a number of other factors that prior research findings suggest may influence the

casual/non-casual wage differential, such as differences in previous work experience and unmeasured differences in aspirations and skills.

Overall, the results indicate that most temporary workers earn roughly the same amount per hour as ‘similar’ permanent workers (those statistically matched on the basis of their personal and job characteristics). This suggests that temporary workers in New Zealand are not widely employed at lower rates of pay than permanent employees purely on the basis of their type of employment relationship.¹⁰

One other interesting question is the importance of each of the different factors in accounting for the pay gap. Table 7 presents estimates using the standard Blinder-Oaxaca decomposition method and evaluates the contribution of each characteristic using the returns to that characteristic for permanent employees. The first row reports the unadjusted average wage gap (30 log points for males and 13 for females). Age is the most important demographic factor, with the younger ages of temporary employees accounting for about one-third of the male wage gap and one-quarter of the female wage gap. Differences in education and in other personal characteristics each make a fairly small contribution. About 10% of the wage gap, for both men and women, is due to the fact that temporary workers are far more likely to be working in part-time jobs. Differences in occupational distribution account for about one-third of the pay differential for both men and women. Differences in industry and firm size each play a smaller role while private/public sector of employment makes a small negative contribution (reflecting the fact that temporary employees are slightly more likely to work in the public sector).

Table 7: The importance of different characteristics in accounting for the permanent-temporary wage gap

	Males		Females	
	Log points	%	Log points	%
Unadjusted log wage difference	0.301		0.130	
Total difference accounted for by characteristics	0.301	100.0	0.111	85.3
Contribution of specific characteristics:				
Age	0.097	32.3	0.031	27.6
Qualifications	0.013	4.4	-0.003	-2.6
Other demographic factors	0.020	6.8	0.010	9.0
Part-time	0.034	11.2	0.015	13.6
Occupation	0.105	34.7	0.049	44.2
Industry	0.029	9.6	0.017	15.4
Sector	-0.009	-3.0	-0.015	-13.5
Firm size	0.012	3.9	0.007	6.3

Training

To estimate the effect of working in a temporary job on the probability of receiving employer-funded training, the probability of having received training in the last year was modelled using logistic regressions. The dependent variable in these regressions is an indicator variable that is set to ‘1’ if the individual received employer-funded training during the last 12 months and to ‘0’ otherwise. Initially, we modelled the training participation probability of men and women as a function of their measured personal characteristics (age, ethnicity, parental status, immigrant status and years in New Zealand, geographical location and highest educational qualification) and temporary job status. In a second regression, the

following job characteristics were added to the explanatory variables: hours of work, occupation defined at one-digit level, industry defined at one-digit level, size of employer, and the employer's business type (private sector, public sector or non-profit sector). We did not control for variations in job tenure because this is likely to be determined jointly with temporary job status. In addition, we were unable to control for any differences across individuals in the number of weeks worked during the previous year. Variations in weeks worked can be expected to have a direct impact on our measure of training rates because people who worked for fewer weeks would have had less time in which to receive training, all else being equal.

Table 8: Estimates of the gap in training probabilities between temporary and permanent employees

	Unadjusted difference in training rates (temporary-permanent)	Model 1 - Controls for personal characteristics	Model 2 - Controls for personal and job characteristics
		Marginal effect	
Males			
All temporary workers	-0.210	-0.176 ***	-0.147 ***
Casual	-0.247	-0.208 ***	-0.172 ***
Fixed term	-0.110	-0.102 **	-0.101 **
Seasonal	-0.243	-0.200 ***	-0.176 ***
Females			
All temporary workers	-0.089	-0.082 ***	-0.056 **
Casual	-0.158	-0.134 ***	-0.086 **
Fixed term	0.068	0.013	-0.014
Temporary agency	-0.222	-0.201 ***	-0.188 ***
Seasonal	-0.116	-0.090 **	-0.031

* Significant at the 90 percent confidence level. **Significant at the 95 percent confidence level. ***Significant at the 99 percent confidence level.

Table 8 presents the key results obtained. The first column of the table shows the unadjusted or raw percentage point gap in training rates between all temporary employees (or a particular subgroup of temporary employees) and permanent employees. The second column shows our estimates of the marginal effect of temporary employment on the probability of having received training, after controlling for differences in the distribution of personal characteristics. The third column shows our estimates of the marginal effect of temporary employment on training rates after both personal and job characteristics are included in the regression model. These 'marginal effect' estimates represent the difference between the predicted training participation rates of temporary and permanent employees, calculated while holding the effects of other variables constant.¹¹

Most of the marginal effects shown in Table 8 are negative and statistically significant. The results in the third column indicate that the predicted training probabilities of all male temporary employees and each sub-group (casual, fixed term and seasonal) remain substantially lower than those of permanent employees after adjustments for both personal and job characteristics have been made. For example, the training probability for all

temporary males is estimated to be approximately 15 percentage points lower than that for males in permanent employment. The unadjusted difference was 21 percentage points, indicating that about one quarter of the gap in training can be explained by differences in personal and job characteristics. The predicted training probabilities for males in casual, fixed-term, and seasonal jobs are also significantly lower than that of males in permanent jobs even after the adjustments.

Women in temporary jobs face a smaller gap in training rates both before and after adjustments are made for differences in the distribution of characteristics. In the results from the final model with controls for both personal and job characteristics (shown in the third column of Table 8), the estimated training probability for all females in temporary work is 5.6 percentage points lower than that for 'similar' females in similar but permanent jobs. (The unadjusted difference was 9 percentage points, indicating that about one-third of the gap can be explained). Women in casual and temporary agency jobs continue to have significantly lower training probabilities than women in permanent jobs, but there is no significant difference for women in fixed-term positions.

As noted previously, temporary and permanent employees are likely to differ in the number of weeks that they worked during the year, and this variable (which was not measured in the survey) can be expected to directly influence training rates due to the fact that the reference period for measuring training participation was the previous year.

Summarising these results, the temporary-permanent gap in training rates appears to be partly due to differences in the personal characteristics of temporary and permanent employees. On average, temporary employees have lower educational attainment than permanent employees and are more likely to be aged under-25 years, and both these factors are correlated with a lower likelihood of receiving employer-funded training. Differences in job characteristics, including shorter hours, industry and occupation also make a contribution to the temporary-permanent training gap. These factors do not fully account for the lower training rates of temporary employees, however. It is likely that some of the remaining gap is due to the fact that temporary employees typically worked for fewer weeks in the previous year than permanent employees.

The finding that there is a significant association between temporary employment and a lower probability of having undertaken training is consistent with the hypothesis that employers offer less training to temporary workers. An alternative explanation is that there are unmeasured differences between temporary and permanent employees along other relevant dimensions, such as weeks worked during the year or the motivation to undertake training, that are contributing to the gap in participation rates. With only one observation for each respondent, we are unable to assess the importance of those unmeasured factors or make any statistical adjustments for their effects.

Conclusion

According to the Survey of Working Life, 9.4% of employees in the March 2008 quarter were working in a temporary job. By analysing the survey data on reasons and preferences, we found that most of the older adults and more than half of the young adults who were employed on a temporary basis indicated that they preferred temporary work. However, prime-aged adults (those aged 25-54) were roughly equally divided between preferring

temporary work and wanting a permanent job. We also found that there are substantial differences between temporary and permanent employees in wage rates, training participation rates and working time patterns, but also substantial differences in pay and conditions between the different types of temporary work (fixed-term, temporary agency, casual and seasonal).

Our analysis of the permanent/temporary pay gap indicated that the lower average hourly earnings of temporary employees can be largely attributed to differences in demographic characteristics and occupations and industries of employment. Temporary workers earn essentially the same amount per hour as permanent employees with matching demographic and job characteristics. Demographic characteristics, occupation and industry of employment also account for some of the gap in training between temporary and permanent employees, but a significant training rate gap remains unexplained.

Notes

¹ Access to the data used in this report was provided by Statistics New Zealand under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the author, not Statistics New Zealand.

² People who gave more than one 'yes' response to the sequence of questions on the nature of their temporary job were classified to one job type using a prioritisation scheme (see Dixon, 2009).

³ WEB Research and Department of Labour (2004) identified this problem when interviewing informants in case studies of employment in cleaning, labour hire, fish processing and call centres.

⁴ People who had two or more jobs were classified according to their main job.

⁵ It is possible that the proportion of employees who work in temporary jobs is slightly higher in the March quarter than at other times of the year, because of seasonal jobs that exist only in the summer months.

⁶ Full details are given in Dixon (2009).

⁷ Wooden and Warren (2003) report that casual employees in Australia are less satisfied with their jobs than permanent employees, but fixed-term employees are more satisfied.

⁸ The training question was worded as follows: 'In the last 12 months, have you undertaken any training courses or study that was paid for by your employer'? Employees who said 'yes' were also asked how long they had spent on the study or training.

⁹ We do not give estimates for males in temporary agency employment because of small sample sizes.

¹⁰ The finding that temporary employment is not generally associated with a wage rate penalty relates only to *hourly* compensation. Because temporary employees work fewer hours per week than permanent employees, on average, their weekly and annual earnings are lower.

¹¹ Because the logit model is non-linear the marginal effect of each independent variable is not constant, as in a linear regression model. Rather, it varies according to the values of all the other independent variables that are included in the model. In this paper we adopt the conventional approach to reporting the marginal effects of each independent variable by evaluating the probabilities at the sample averages for all other independent variables.

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