

# The unemployment spells of registered jobseekers

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This paper looks at the unemployment spell experiences of registered jobseekers over a four-year period. In particular, we focus on jobseekers who either registered as unemployed with the New Zealand Employment Service in 1993, or left the unemployment register in 1993.

## 1 Introduction

WE UNDERTOOK RESEARCH on unemployment spells as part of a large research project that was initiated by the Department of Labour to improve its understanding of both the nature and solutions to unemployment. The research used a newly created longitudinal dataset of individuals who were registered as jobseekers with the New Zealand Employment Service over the period October 1988 to December 1997. Other research undertaken as part of this project examined the impact of employment policy interventions on jobseekers' subsequent experiences. That research, by David Maré, is also published in this issue of the *Labour Market Bulletin*. In addition, Michael Hampl completed a paper discussing recent international and New Zealand experience regarding the prediction of prolonged unemployment (Hampl, 1999).

In this paper, we have tried to extend and update the existing literature on unemployment spells. Our approach is to examine the experiences of groups of jobseekers over a four-year period using an administrative source of unemployment data in order to build on existing research in this area. In particular, we focus on those who either registered as unemployed with the New Zealand Employment Service in 1993, or who left the jobseeker register in 1993.

Our results provide useful insights on how individuals experience spells of registered unemployment. However, it is important to note that the number of registered jobseekers is not the official unemployment measure in New Zealand.

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Official unemployment is measured by the *Household Labour Force Survey* (HLFS), which is undertaken by Statistics New Zealand.<sup>2</sup>

Our paper is structured in the following manner. We start by briefly discussing the factors that are likely to influence patterns of unemployment. Next we discuss our methodological approach. Thirdly, we describe our results on the unemployment spell experiences for all jobseekers who either became registered unemployed, or who left registered unemployment in 1993. Finally, we look at the overall results on the experiences of the registered unemployed and how they vary for different social groups and across time.

The appendix contains some information on our dataset and on the registered jobseeker measure used in our research.

## **2 Why does unemployment occur?**

Unemployment occurs where an individual is searching and available for work but is unable to find a suitable job at prevailing wage rates (Ehrenberg and Smith, 1988). Some level of unemployment is a necessary consequence of the dynamic nature of labour markets. At any particular time, a number of people are entering the workforce for the first time, or re-entering employment after time spent out of the labour force. As a result, even in a well-functioning labour market, there will always be some frictional level of unemployment, and this is typically regarded as efficient.

However, unemployment may also reflect failures of the labour market to coordinate adequately the demand and supply of labour. For example, wage stickiness may mean that the labour market may not adjust adequately to changes in demand and supply of labour (Shapiro and Stiglitz, 1984). Unemployment that is driven by market failure is inefficient because it represents a loss of production. It may also mean that costs or externalities are being imposed on others.

Overall, unemployment is influenced by factors that affect inflows (people becoming unemployed) and outflows (people leaving unemployment). By definition, individuals who become unemployed will either have previously been in employment, or out of the labour market. Similarly, when individuals leave unemployment they may either become employed or may leave the labour market.

### **2.1 Why do individuals become unemployed?**

Flows into unemployment are influenced by the decisions made by both workers and firms. For example, individuals in employment may choose to leave their job

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<sup>2</sup> Note that, in this paper, all our research results on unemployment or jobseekers relate to the registered unemployed, unless otherwise stated. The terms ‘jobseekers’ and ‘unemployed’ are used interchangeably. More information on registered unemployment is contained in the appendix.

voluntarily to look for more suitable employment (supply side) or they may be laid off by firms (the demand side). Alternatively, individuals who have been out of the labour market (for example, looking after children or a sick relative) may choose to move into the labour market and start looking for work.

## ***2.2 Why do individuals remain unemployed or leave unemployment?***

Once individuals become unemployed, a whole range of demand and supply factors will affect the duration of time that they remain unemployed.

For instance, individuals may remain unemployed because they lack the skills or attitudes required by potential employers. Alternatively, individuals may have domestic responsibilities such as childcare, and this may hinder their ability to find work, or some jobseekers may not be motivated to find employment quickly because of financial disincentives created by the tax and benefit system (Organisation for Economic Cooperation and Development, 2000). Another possible factor is that individuals may lack access to transport to work (Parker, 1997), or jobseekers may have a disability that reduces their employability. Individuals may also have become disillusioned and discouraged and, as such, reduced their search efforts or left the labour market entirely.

On the demand side, a key reason why individuals may remain unemployed can be from a lack of vacancies. For a variety of reasons, the economy may fail to provide a sufficient number of jobs. Low demand may require firms to reduce employment because they are unable to sell enough product in the domestic or overseas markets. Alternatively, changes in technology may reduce the number and type of vacancies. Bargaining pressures from currently employed workers may keep wages too high, and may mean that unemployed workers are unable to 'price' themselves into employment (Linbeck and Snower, 1985). Minimum wage rates may reduce the ability of wages to adjust downwards and thereby expand the number of jobs available. The numbers of jobs available may be reduced because employers keep wages high in order to motivate their workforce (Shapiro and Stiglitz, 1984). Lastly, different groups of jobseekers may find it difficult to gain employment because of discrimination from employers.

## ***2.3 What does this mean for unemployment experiences of individuals?***

These different demand and supply factors will affect individuals in different ways. Some will be unemployed for only short periods of time, while others will experience more prolonged unemployment over single or multiple spells. For instance, individuals with fewer educational qualifications and those who live in areas with relatively few job opportunities are likely to be more at risk of being unemployed long term.

### **3 There has been relatively little New Zealand research looking at unemployment spells**

Traditionally, most research and information uses cross-sectional or point-in-time data on unemployment (such as the number of people who are unemployed in total, or by different unemployment durations). While these measures provide a useful overall picture of unemployment, they do not provide accurate information on how individuals experience spells of unemployment. For instance, an unemployment rate of 10 percent may reflect a situation where 10 percent of the labour force is continuously unemployed. Alternatively, it may represent a situation where everyone in the labour force becomes unemployed for 10 percent of the time.<sup>3</sup>

However, there is a growing body of literature that provides a longitudinal spell analysis of unemployment. An important overseas study in this area was undertaken by Summers and Clark (1979), who looked at survey data in the United States in the late 1960s and mid-1970s. They found that most unemployment is characterised by relatively few persons who are out of work a large part of the time, even in periods of low unemployment. Indeed, jobseekers who experienced short periods of unemployment accounted for only a small part of measured unemployment. Much of this observed joblessness is due to prolonged periods of inability or unwillingness to locate employment. The authors' conclusions regarding the concentration of unemployment appeared to hold for all points in the business cycle for almost all demographic groups.

More recently, in the United States, Meyer and Rosenbaum 1996 looked at five-year panel unemployment insurance data for five states from 1979 to 1984.<sup>4</sup> They found over this period that most claimants received unemployment insurance only once. However, around 40 percent of individuals received unemployment insurance more than once, and close to 20 percent received unemployment insurance for three or more years. The authors also found that this latter group accounted for around 40 percent of unemployment claims. Most repeat recipients were concentrated in seasonal industries. Stromback and Dockery (2000) looked at the duration of unemployment benefit spells in Australia using panel data over a four-year period up to 1999. Like Meyer and Rosenbaum, they also found that repeat spells are common, and these repeat spells tend to account for a significant

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<sup>3</sup> Note that stock measures of duration provide an incomplete picture of the extent of unemployment. These measures refer to the period that currently unemployed jobseekers have been unemployed up to a point in time (the incomplete duration of an unemployment spell) rather than the overall duration of unemployment that jobseekers tend to experience.

<sup>4</sup> Unemployment insurance in the United States insures workers against unforeseen events or subsidised firms and workers engaged in temporary lay offs. It is therefore a short-term form of assistance for individuals.

number of the total unemployment spells in their sample. Stromback and Dockery found that around 43 percent of individuals had more than one spell in the period. The authors' results also indicated that two-thirds of the spells in their sample were experienced by repeat recipients.

In recent years there has also been a growing interest in unemployment spells in New Zealand. A few researchers have looked at jobseeker spells using administrative data sources. The research has yielded some very interesting and useful results by analysing registered jobseeker and unemployment beneficiary numbers from the Ministry of Social Development.<sup>5</sup> Nevertheless, this area of research is fairly new in New Zealand.

De Raad (1997) and Wilson (1999) based their analyses on benefit data. De Raad observed the experiences of unemployment beneficiaries using a 20 percent random sample of all people who received the unemployment benefit in the June 1992 quarter. He followed the experiences of these jobseekers over a three-year period. Wilson looked at the experiences of a cohort entering unemployment benefit over a five-year period. In contrast, Gardiner *et al* (1994) based their analysis on the registered jobseeker data from 1989 to 1993.<sup>6</sup>

Overall, the New Zealand studies showed similar results, and were broadly consistent with the findings of the overseas studies. First, it was found that jobseekers commonly experienced multiple spells of unemployment. Gardiner *et al* found that 45 percent of jobseekers over the period 1989 to 1993 experienced two or more spells of registered unemployment. De Raad (1997) found that two-thirds of unemployment beneficiaries had at least two spells of unemployment over the three-year period. This result was similar to that found by Wilson (1999) over the five-year period – that only a quarter of the cohort entering unemployment benefit experienced that one spell of benefit, and a quarter of the cohort experienced five or more spells on benefit (including other benefits as well as the unemployment benefit).

These studies also showed that the burden of unemployment was not shared equally amongst jobseekers – a relatively small proportion of jobseekers

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<sup>5</sup> In September 2000 the Ministry of Social Development was formed. Prior to this these statistics were available from the Department of Work and Income. Note also, that prior to October 1998 and the formation of the Department of Work and Income, the registered jobseeker figures were available from the New Zealand Employment Service, which was part of the Department of Labour. At that time, the unemployment benefit figures were available from Income Support, which was part of the Department of Social Welfare.

<sup>6</sup> While some of these studies have used different data sources, this is unlikely to have significantly affected their results. Up to the late 1990s the registered jobseeker and unemployment beneficiary measures of unemployment have tended to include mainly the same groups of jobseekers and, accordingly, have shown very similar results over time. The large majority of those who were registered as unemployed were on the unemployment benefit.

accounted for a large degree of the total unemployment weeks. Gardiner *et al* found that 17.5 percent of jobseekers accounted for half of all person weeks of registered unemployment. These very long-term jobseekers were more likely to be male, older, and of Māori or Pacific peoples ethnicity. De Raad's results indicated that over half of the total duration of unemployment benefit receipt weeks was experienced by around a quarter of jobseekers. Wilson found that 60 percent of unemployment beneficiaries experienced 92 percent of the total benefit weeks.

#### **4 Examining unemployment spells through a cohort of registered jobseekers over a four-year period**

In this paper, we have extended the New Zealand research by providing a comprehensive summary of the register spell experiences of individuals. We follow jobseekers over a four-year period, and look at a range of different measures of unemployment spell experiences. We also look at how these experiences vary for different social groups and at how the economic cycle affects the experiences of the unemployed.

The Department of Labour dataset used for this research contains comprehensive information on the unemployment history of each jobseeker registered as unemployed over the period October 1988 to December 1997. The dataset records that roughly 1.2 million individuals experienced unemployment during this time, meaning that slightly more than a third of the working-age population resident in New Zealand at some point in time during the nine years experienced registered unemployment. The appendix to this article provides a description of the nature of the dataset.

To ensure that every jobseeker was measured in the same window of time, and the effect of changing economic circumstances is controlled for, we focus on cohorts of jobseekers who either started or finished a spell of unemployment in 1993. We then follow the unemployment experiences of these individuals over a standardised four-year window of time.

In selecting measures of unemployment experiences, we tried to take into account the wide variety of patterns of unemployment experience. To illustrate these, three hypothetical experiences of unemployment are represented in Figure 1. Individual 'A' experiences multiple spells of unemployment, while individual 'B' experiences one long spell of unemployment. Individual 'C' does not experience unemployment at all.

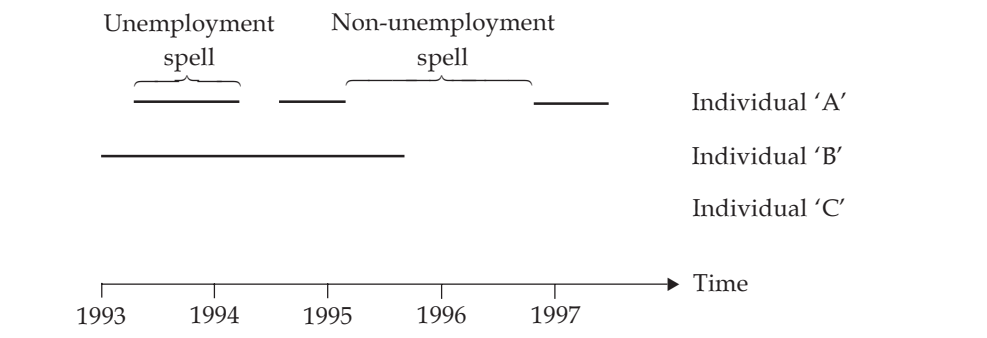
Taking into account these unemployment patterns, we developed the following five measures of unemployment experiences over the four-year period:<sup>7</sup>

- the proportion of the working-age population that become unemployed (at least once) in a given year;

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<sup>7</sup> Note that our unemployment and non-unemployment spell measures take into account both completed and uncompleted spells over the four-year period.

**FIGURE 1: Illustrative example of unemployment patterns**



- the length of time that a jobseeker spent unemployed in their first spell of unemployment;
- the length of time between finishing a spell of unemployment and starting a new spell;
- the number of spells of unemployment experienced by a jobseeker in a four-year window of time;
- the total time spent unemployed in a four-year window of time.

## 5 Unemployment dynamics experienced by the 1993 cohort of registered jobseekers over a four-year period

### 5.1 What was the risk of becoming registered unemployed in 1993?

In 1993, slightly more than 250,000 individuals became registered unemployed. This means that approximately 10.6 percent of the population aged 15 to 64<sup>8</sup> registered as unemployed at least once during the year. Accordingly, a large minority of the working-age population experienced registered unemployment in any given year.

### 5.2 What was the median length of a registered unemployment spell for a jobseeker?

The median jobseeker from the 1993 cohort tended to be registered as unemployed for close to five months (19 weeks) in their first spell of unemployment over the four-year period.<sup>9</sup> There was, however, considerable

<sup>8</sup> To measure all individuals who would have been in the working-age population at the time, we have used estimated age distribution data from Statistics New Zealand from December 1992, and made an allowance for the natural increase in the working-age population, as well as for permanent and long-term arrivals occurring in 1993.

<sup>9</sup> Note that in order to calculate the median here we took into account spells that had not been completed in the four-year window. The end date for these spells became the end date for the four-year period that we were following jobseekers.

**TABLE 1: Duration of first registered unemployment spell for the 1993 cohort (N=255,474)**

<i>Percentiles</i>	<i>Length of unemployment spell (weeks)</i>
10	5.9
20	9.0
30	9.6
40	13.7
50	18.7
60	25.6
70	30.7
80	42.9
90	66.9

variation in the length of unemployment spells for different jobseekers. This is shown in Table 1 above which ranks every jobseeker in the cohort by the length of their first unemployment spell. For example, consider the tenth percentile of 5.9 weeks and the ninetieth percentile of 66.9 weeks. These figures show that only 10 percent of all jobseekers had a duration of unemployment that was shorter than 5.9 weeks. Similarly, 10 percent of all jobseekers had a duration of unemployment that was 66.9 weeks or longer.

Another important result in Table 1 is that the majority of jobseekers experienced relatively short durations of unemployment, while a minority of jobseekers experienced much longer spells of unemployment. For example, approximately 60 percent of jobseekers experienced spells of less than 26 weeks unemployment. In contrast, around 20 percent of jobseekers experienced spells of unemployment of 43 weeks or longer.

Note that, here we focused on the first spell of unemployment of individuals in the four-year period starting from 1993. Given that all of our cohort became registered unemployed in 1993, their initial spells of unemployment would have started in 1993. We used this approach to provide some consistency for comparison purposes. Another reason for selecting the first spell of unemployment was that this spell was the most likely to have been completed in the four-year window. This made it possible to observe the whole length of the spell of unemployment.

These 'first' spells of unemployment, however, may not necessarily correspond to all of the first spells of jobseekers being on the register. As we show next, many jobseekers have multiple spells of unemployment. Also, many of the cohort had prior experience of unemployment. This means that the first register spell in the four-year window was often not the first actual register spell.



**TABLE 2: Time between registered unemployment spells, jobseekers who ended a spell of unemployment in 1993 (N=269,989)**

<i>Percentiles</i>	<i>Length of off-register spell in weeks</i>
10	7.4
20	14.0
30	23.3
40	37.9
50	74.6
60	172.0
70	Do not return within four years
80	Do not return within four years
90	Do not return within four years

### *5.3 How long does it take before the median jobseeker becomes registered again?*

An important finding from our research is that, after finishing their first spell of unemployment, most jobseekers tend to become registered unemployed again. Typically, these individuals become unemployed within a year-and-a-half of finishing their first spell of unemployment.<sup>10</sup> However, there is significant variation in how long it takes before jobseekers become registered unemployed again. As can be seen from Table 2, roughly 30 percent of jobseekers become unemployed again within 23 weeks. In contrast, slightly more than 30 percent are not observed to become unemployed again (within the four-year window we are measuring).

Note that, not all jobseekers who have left the register move into employment. Indeed, jobseekers may leave registered unemployment for a variety of reasons, apart from moving into employment. For instance, they may move onto a benefit where they are not required to seek work. Alternatively, they may have moved towards long-term training, left the country or left the labour market. In using the register data alone, it is not possible to determine what has happened to jobseekers who have left the register.

<sup>10</sup> In this section, we focus on the group of people who left the register in 1993. The results refer to their first off the register spell in the four-year period from 1993 onwards. As noted above for spells of unemployment, we have focused on the first off the register spell for our analysis because jobseekers are more likely to have completed this spell in the four-year period, than any subsequent spells.

**TABLE 3: Number of registered unemployment spells in four years  
(N=255,474)**

<i>Percentiles</i>	<i>Number of spells</i>
10	1
20	1
30	1
40	1
50	2
60	2
70	3
80	3
90	4

#### *5.4 How many spells of registered unemployment did jobseekers experience?*

Table 2 indicates that a high proportion of jobseekers become unemployed again, this means that a high proportion also experienced more than one spell of unemployment. Indeed, our analysis shows that close to 60 percent of jobseekers in the cohort experienced more than one spell of unemployment, and that the median jobseeker experienced two spells of unemployment. In addition, many jobseekers experienced a larger number of spells (see Table 3). For instance, slightly more than 10 percent experienced four spells of unemployment. One possible explanation for some of the multiple spells may be that some jobseekers receive particular forms of employment assistance that result in them leaving the register, such as wage subsidies and longer-term training. In addition, once their spell of employment assistance receipt has been completed, some of these jobseekers may return to the register. We have not explored this explanation in depth to date.

An alternative and useful way of thinking about spells of unemployment experienced by jobseekers is to consider them in the context of the total weeks of unemployment experienced by the 1993 cohort over the four-year period. This approach also shows that multiple spells are a substantial part of the unemployment experience of jobseekers. We find that those who had multiple spells of unemployment experienced close to 80 percent of the total unemployment weeks for the 1993 cohort.

#### *5.5 How long were jobseekers registered as unemployed in total?*

The dynamics presented in the above tables indicate that there are a variety of different patterns of unemployment. A way of bringing together these varying experiences of unemployment is to add up the total time individuals spend

**TABLE 4: Total time unemployed in four years (N=255,474)**

<i>Percentiles</i>	<i>Total time unemployed</i>	<i>Percentage of four-year period</i>
10	9.0	4.3
20	15.0	7.2
30	23.0	11.1
40	31.3	15.0
50	43.1	20.7
60	57.6	27.7
70	76.4	36.7
80	102.3	49.2
90	138.6	66.6

unemployed across spells. This measure – the total time spent unemployed in four years – reveals that the period individuals spend unemployed is far greater than that suggested by focusing on single spells of unemployment (see Table 4). Focusing on the 0.25 million jobseekers who became unemployed in 1993, we find that the median experience of unemployment was about 43 weeks. Indeed, the majority – almost 70 percent of jobseekers – experienced more than 26 weeks of unemployment. In addition, a significant proportion of jobseekers experienced very long-term unemployment. For example, around 44 percent were unemployed for one year or more, and 20 percent of jobseekers were registered unemployed for close to 50 percent of the four-year period.

### *5.6 Summarising the median experiences of the registered unemployed*

Our findings provide useful insights into the overall incidence of registered unemployment amongst the population. We find that an important minority of the population have some sort of experience of registered unemployment each year. For example, in the 1993 year, around 11 percent of the working-age population became registered unemployed.

**TABLE 5: Summarising the experience of the 1993 cohort (N=255,474)**

<i>Quartiles</i>	<i>Median total weeks registered unemployed in four years for each quartile</i>	<i>Median number of spells for each quartile</i>	<i>Median length of first spell in weeks for each quartile</i>
1	9.1	1	9.0
2	29.1	2	21.1
3	61.9	2	28.1
4	127.6	3	40.9

**TABLE 6: Jobseekers in the 1993 cohort over the four-year period, and their share of registered unemployment weeks**

<i>Total registered unemployment weeks by duration bands</i>	<i>Percentage of jobseekers in the 1993 cohort</i>	<i>Share of unemployment weeks experienced by duration band (%)</i>
Under 26 weeks	30.2	6.2
Twenty-six weeks to one year	22.6	13.3
One year to two years	25.5	30.0
Two years or more	21.8	50.5
	100	100

There was, however, considerable variation in the severity of the unemployment experience for the cohort of individuals who became unemployed in 1993. In order to show this, we divide the 1993 cohort into four equal groups based on the total time spent unemployed between 1993 and 1997. Table 5 shows the median length of total time unemployed for each of these groups, as well as the median number of spells and duration of the first spell of unemployment.

As Table 5 above shows, there was considerable variation in how individuals in the 1993 cohort experienced unemployment. For a quarter of jobseekers, unemployment was a singular and relatively brief experience lasting around nine weeks. However, in contrast, a quarter of jobseekers experienced chronic unemployment. Over four years, the median jobseeker in this group was unemployed three times, and experienced almost two-and-a-half years of unemployment. Overall, however, the data indicates that a reasonably high proportion of jobseekers experience long-term unemployment and a significant proportion experience very long-term unemployment.

Once again, these results show that focusing on the duration of the single spell can under-estimate the total duration of unemployment of jobseekers, because jobseekers commonly tend to experience more than one spell of unemployment.

Another way of looking at how the unemployment experience is shared amongst jobseekers is to examine the distribution of unemployment weeks. Table 6 indicates that jobseekers who had been unemployed for two years or more experienced a disproportionately high share of the unemployment weeks. While just over a fifth of jobseekers were unemployed for two years or more, these jobseekers accounted for around half of the total unemployment weeks experienced by the 1993 cohort.

## 6 Does the experience of registered unemployment differ between social groups?

The previous section described the median patterns of registered unemployment for all groups of registered jobseekers. This section looks at how these patterns vary between different social groups. In particular, we look at whether different demographic characteristics make individuals more or less likely to become registered unemployed at least once in a year; spend a long time registered unemployed in their first spell; spend less time between spells of registered unemployment and thereby experience multiple spells of unemployment; and experience more time registered unemployed over the four-year period.

We find that there are important differences in the unemployment experiences of different groups for the 1993 cohort (see Table 7 below).<sup>11</sup> Males seem to be more at risk of becoming unemployed than females. Moreover, once males became unemployed, they had a greater risk of having a longer spell of unemployment. They also had a higher risk of having multiple spells of unemployment, and, as a result, spending more time unemployed in total.

Sole Māori, and to a lesser extent, mixed Māori<sup>12</sup> and Pacific peoples are at risk of prolonged periods of unemployment in comparison with the rest of the New Zealand population. There are also interesting differences in how unemployment is experienced between sole and mixed Māori. Both groups have a high risk of becoming unemployed. However, once unemployed, sole Māori are more likely to experience multiple and longer spells of unemployment. As a result, in comparison with mixed Māori, sole Māori suffer a longer total time unemployed. The differences in outcomes for sole and mixed Māori are consistent with the findings of Chapple (1999) and Chapple and Rea (1998) who looked at official HLFS unemployment results for sole and mixed Māori.

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<sup>11</sup> Note that we have not included information on the measure of risk of becoming unemployed in Table 7 because the estimates for risk that we have used for the different demographic groups are purely indicative. First, we have combined a flows measure of registered unemployment with a specific stock measure of the working-age population from a different source. In particular, we have estimated the working-age population by averaging HLFS data (for those aged 15 years and over) across 1993. Ideally, our population measure would have taken into account all those who were in the working-age population in the year, including inflows to the working-age population during the year. Secondly, we should have used a working-age population of 15 to 64 years, given that very few individuals on the register will be aged 65 years and over. Nonetheless, we believe that our estimates still provide a good indication of the *relative* risk for different groups of becoming unemployed, and therefore we briefly discuss our key results here.

<sup>12</sup> Sole Māori refer to individuals who identify themselves as being of only the Māori ethnic group, while mixed Māori refers to individuals who identify themselves as being both Māori and another ethnic group.

Younger workers face a higher risk of becoming unemployed than older workers.<sup>13</sup> However, mature workers are at risk of a longer spell of unemployment once they are unemployed. In noting this, younger workers are more at risk of multiple spells of unemployment, and, as a result, spending a larger total time unemployed than older workers.<sup>14</sup>

Jobseekers with low levels of qualifications are more at risk of becoming unemployed, and once becoming unemployed, are more likely to have a longer duration of unemployment, multiple spells, and spend longer on the register in total.

In comparison with other regions, individuals in Northland and Gisborne are more at risk of becoming unemployed and of spending a longer total time unemployed.

There are, however, a number of reasons why some care must be taken in the interpretation of the results discussed above. First, we discuss differences in the median experience for separate groups. There is a wide variation in the unemployment experiences within each group that is disguised by a focus on group medians.

Second, differences in median outcomes between groups do not always imply that the particular demographic characteristics are causes of labour market disadvantage. For example, consider the fact that Māori seem to have less successful unemployment outcomes than Pākehā. Ethnic characteristics may play some role in these outcomes (for example, through discrimination), but, equally, Māori are more likely to live in economically depressed areas and have lower levels of qualifications. These other characteristics may also have some impact on the difference in median outcomes between Māori and Pākehā.

Third, we focus here on the cohorts of jobseekers who became unemployed or left unemployment in 1993. It is important to note that the differences we observe may have changed over time. For example, we investigate regional differences in the unemployment experience of jobseekers. Given the differing growth rates of regions, we would expect that some conclusions derived from an analysis of the 1993 cohorts would not necessarily hold for different time periods.

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<sup>13</sup> For our analysis of age data we have focused on an individual's age at their time of enrolment.

<sup>14</sup> The low risk of multiple spells and total time unemployed for mature workers may be the result of the eligibility requirements for the 55+ benefit. This benefit does not require registration after six months upon turning 55-years-of-age.

**TABLE 7: Registered unemployment experiences for different demographic groups**

*Cohort who registered  
as unemployed in 1993  
(N=255,474)<sup>15</sup>*

<i>Demographic characteristics</i>	<i>Percentage of jobseekers by demographic characteristics</i>	<i>Median duration of first observed register spell (weeks)</i>	<i>Median duration of first observed off-register spell (weeks)</i>	<i>Median duration of total time spent unemployed over the four-year period (weeks)</i>
Female	41.4	15.9	116.1	34.0
Male	58.6	21.1	55.0	51.9
New Zealand				
European/Pākehā	63.7	17.9	109.1	36.9
Sole Māori	18.0	22.4	32.6	68.7
Mixed Māori	7.3	19.1	46.9	53.1
Other	4.6	17.9	145.1	36.4
Pacific peoples	6.4	21.7	62.6	51.0
<20	21.2	17.6	38.4	55.7
20-24	23.6	19.7	76.3	41.7
25-29	15.2	18.6	92.9	38.9
30-39	20.2	18.4	99.3	40.1
40-49	11.8	18.6	142.0	38.7
Fifty and above	6.2	21.1	Did not return within four years	35.1
No formal schooling or less than three years secondary schooling	42.3	21.4	44.4	58.1
Less than three School Certificate passes or equivalent	13.7	18.0	57.0	46.0
Three or more School Certificate passes or equivalent	12.7	17.0	97.0	36.7

*continued*

<sup>15</sup> As noted above, for our research we have followed two cohorts of jobseekers – those that registered in 1993, and those that left in 1993. We have only included information on the former cohort given that both cohorts are very similar in composition. Note, that the number of people in the cohort who left the register in 1993 is 269,989.

**TABLE 7: continued**

<i>Demographic characteristics</i>	<i>Percentage of jobseekers by demographic characteristics</i>	<i>Median duration of first observed register spell (weeks)</i>	<i>Median duration of first observed off-register spell (weeks)</i>	<i>Median duration of total time spent unemployed over the four-year period (weeks)</i>
Sixth Form Certificate, University Entrance or equivalent, Bursary, Higher School Certificate	16.3	17.6	131.1	33.6
Other school qualifications	1.7	15.9	167.0	30.4
Post-secondary or trade qualification	6.7	16.4	Did not return within four years	29.0
Degree or professional qualification	6.6	16.9	Did not return within four years	26.6
Auckland Central	8.6	17.7	154.0	35.9
Auckland North	9.1	16.1	191.0	31.1
Auckland South	8.6	19.6	85.4	44.0
Bay of Plenty	8.9	19.0	53.0	47.9
Canterbury	9.8	19.1	113.7	38.3
Central	6.4	18.1	70.2	44.4
Gisborne	7.3	18.1	31.9	56.7
Nelson	4.7	18.4	46.0	45.9
Northland	4.5	20.0	45.7	56.1
Southern	10.1	19.9	54.6	46.6
Taranaki	6.0	17.9	51.3	48.9
Waikato	7.1	19.1	68.9	44.1
Wellington	8.8	20.4	106.6	40.3
Total	100	18.7	74.7	43.1

## **7 How have the dynamics of registered unemployment changed over time?**

Given what we know about the labour market, we would expect that the economic cycle will have a counter-cyclical effect on patterns of unemployment. In other words, where the economy is growing strongly, we would expect a lower probability of becoming unemployed, shorter durations of unemployment and less recidivism.

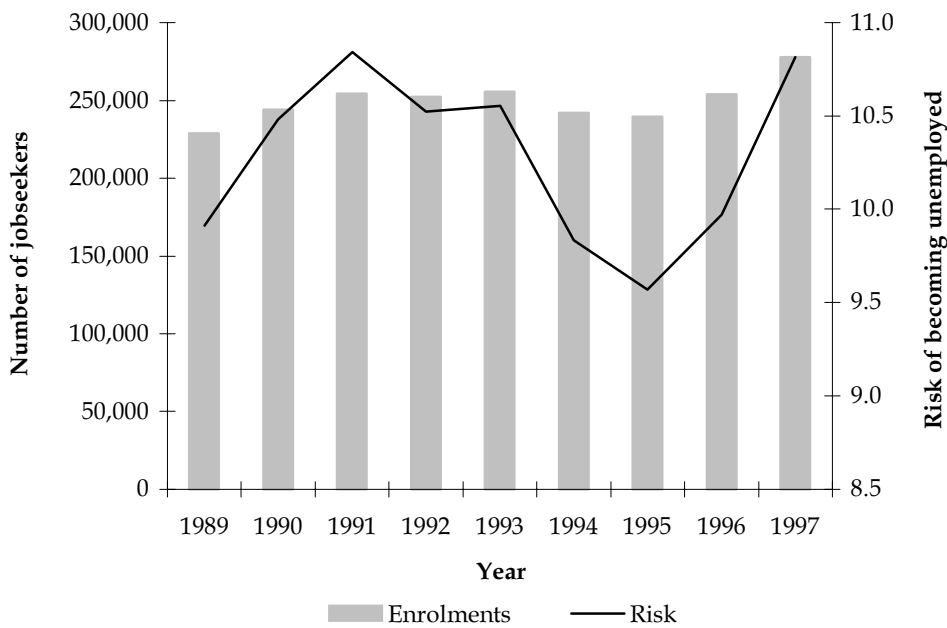


So far, our analysis of the dynamics of registered unemployment has focused on the experiences of a cohort of people who became unemployed or left unemployment in 1993 in order to control for cyclical effects. In this section we investigate how patterns of registered unemployment change with the economic cycle by looking at the experiences of cohorts from other years. We compare registered unemployment experiences of cohorts over the following three distinct phases of the economy.

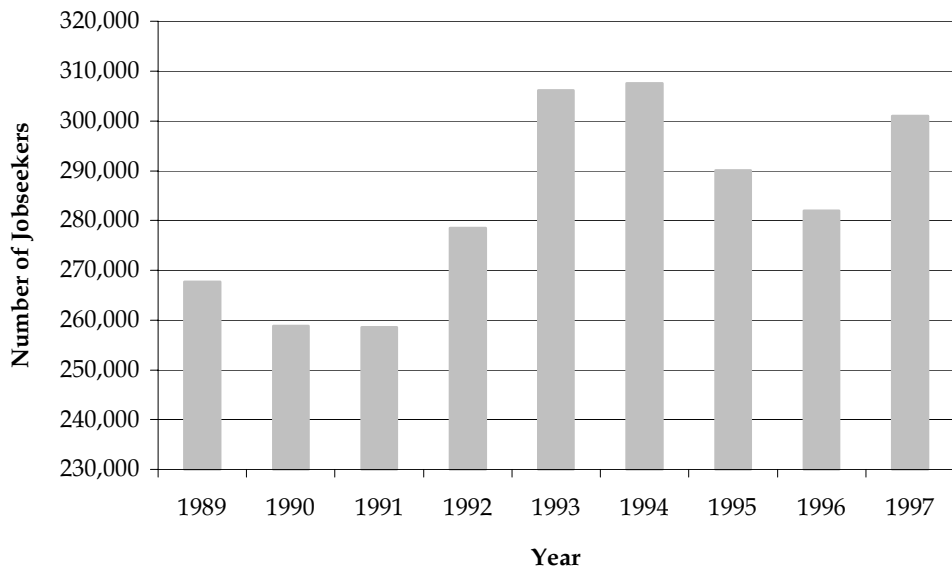
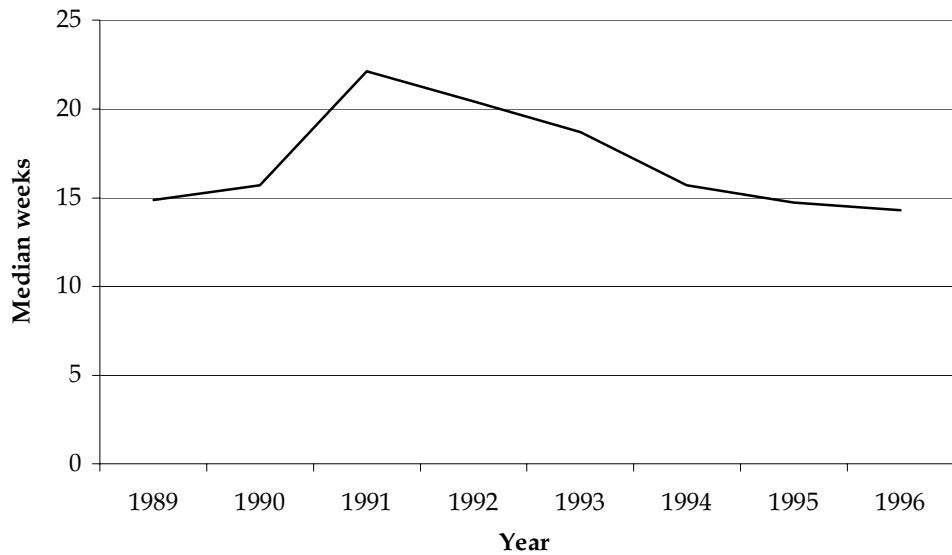
From the late 1980s to 1992, the economy was in recession and the level of unemployment rose significantly. From 1992 to 1996 the economy was growing and the level of unemployment declined sharply. From 1996 to 1997 the economy was mildly recessionary and the overall level of unemployment increased again.

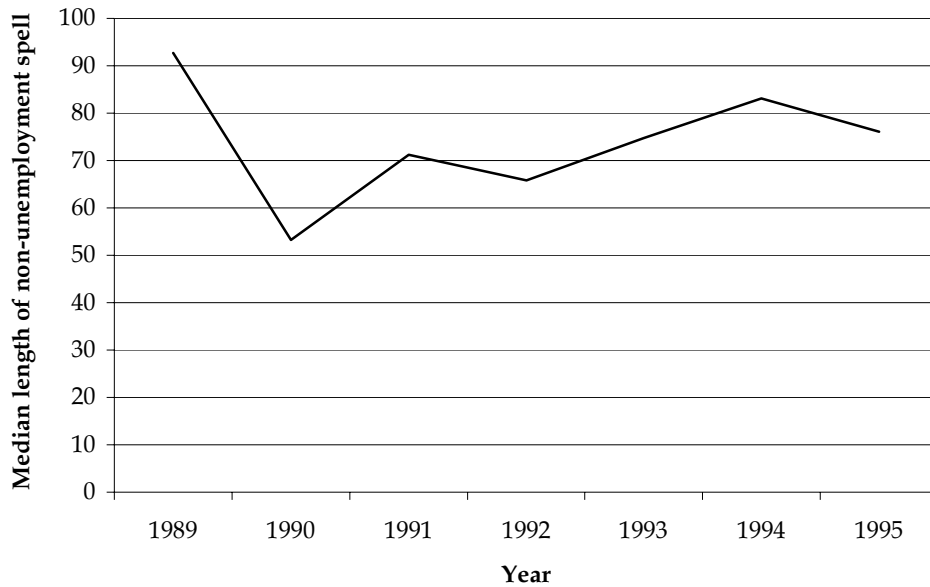
The numbers of people becoming registered unemployed and the probability of individuals becoming unemployed followed the economic cycle as would be expected (see Figure 2). The recessionary period saw the risk of becoming unemployed rising sharply. The risk of unemployment reduced during the growth period of 1992 to 1996, but began climbing again during 1996 and 1997 when the economy moved into recession.

**FIGURE 2: Enrolments and risk of becoming registered unemployed, 1989 to 1997**



As we would expect, outflows from the register also tended to follow the economic cycle. They fell during downturns and rose during upturns.

**FIGURE 3: Flows off the register****FIGURE 4: Median duration of single spell of registered unemployment**

**FIGURE 5: Median duration of the non-unemployment spell**

Changing economic conditions also affected the median duration of unemployment spells.<sup>16</sup> The median duration of unemployment increased during the recessionary period, and decreased during the growth period.

Lastly, the length of time between spells of unemployment also followed the state of the economy. The risk of jobseekers returning to the register was greater during times of reduced economic prospects. Conversely, when the economy was growing there was a lower risk of jobseekers returning to the register.

## 8 Conclusion

In this paper we have looked at the experiences of the unemployed by following groups of registered jobseekers over a four-year period. The main part of our research has focused on the cohort of individuals who became registered unemployed or left registered unemployment in 1993.

Overall, our findings are generally consistent with those of other studies in this area. First, we find that a significant minority of the population experienced registered unemployment. This important result shows that the experience of unemployment is reasonably common. Secondly, we found that there was considerable variation in how individuals in this cohort experienced

<sup>16</sup> Figures 4 and 5 include data prior to 1997 due to issues of censoring.

unemployment. For a quarter of jobseekers, unemployment was a singular and relatively brief experience lasting around nine weeks. However, the remaining three-quarters of the cohort experienced two or more spells of unemployment over the four-year window. In addition, a quarter of jobseekers experienced chronic unemployment. Over the four years, the median jobseeker in this latter group was unemployed three times, and experienced almost two-and-a-half years of unemployment. Individuals who spent longer unemployed over the period also tended to experience a disproportionate share of the unemployment weeks.

Our results also show that focusing on single spells under-estimates significantly the total time that jobseekers spend unemployed. From our data, the median jobseeker experienced two spells of unemployment over the four-year period. In addition, the total time spent unemployed for jobseekers across all their spells of unemployment over the four years tended to be considerably higher than the time spent unemployed in a single spell. Taking into account all of the unemployment spells of jobseekers showed that a high proportion spend a considerable period unemployed.

In terms of the overall incidence of unemployment, our results confirm the findings of cross-sectional analyses of unemployment rates. In our data, the jobseeker groups affected disproportionately by unemployment included Māori and Pacific peoples, those with low levels of qualifications, individuals aged under 20 years and those aged over 50 years, and individuals living in Northland and Gisborne. However, our data also reveals interesting insights into the different patterns of unemployment for different groups. For example, regions with the same overall level of unemployment differ in the extent to which unemployment is experienced in repeated spells.

Our analysis of the results for the period 1989 to 1997 indicates that the median experiences of the unemployed tended to change with the economic cycle. During economic recoveries, inflows, the risk of unemployment and the duration of unemployment spells typically fall, while the median time spent between unemployment spells and flows off the register both rise. The reverse results occur during economic downturns.

Our research has a number of implications for the targeting of employment assistance. Given that the histories of unemployment spells of jobseekers differ significantly, our research provides continued support for the view that employment assistance should be well targeted to ensure that jobseekers who need it most receive it. In other words, there is still a need to make sure that the more costly forms of employment assistance<sup>17</sup> are not accidentally provided to those individuals who will only have a short and singular experience of unemployment without this assistance. It is important to continue to improve on

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<sup>17</sup> These high-cost interventions tend to include those such as wage subsidies or long-term training.

existing profiling tools so that we are able to predict the duration of jobseekers as accurately as possible, and therefore are able to target employment assistance as effectively as possible. It is also important to continue to undertake research to identify employment assistance measures that are most effective in moving jobseekers into employment.

In addition, our results suggest that it would be useful to move away from a focus on the single spell of unemployment. Currently, the most costly forms of employment assistance tend to be targeted towards those who have been registered unemployed for six months or more.<sup>18</sup> Because multiple spells are common, it is also important to take account of the duration of previous unemployment spells in the targeting of assistance. Our research indicates that it would also be important to look at how the total duration of unemployment of jobseekers (rather than just the duration in the single spell) could be reduced with the help of active labour market policies.

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<sup>18</sup> Note that these interventions are also targeted to those who have been registered for less than six months but are at risk of becoming unemployed for six months or more.

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## Appendix

### A1 The Department of Labour research dataset on registered unemployment

This research was based on the Department of Labour (DoL) register dynamics dataset, which contains longitudinal information on the population of all registered jobseekers. The dataset provides information on:

- the characteristics of jobseekers including date of birth, gender, ethnicity, level of educational attainment, disabilities, location, hours of work and occupation sought;
- the start and end dates of each jobseeker's spells of unemployment, and the reasons why each unemployment spell ended;
- the start and end dates of employment assistance that each individual received while unemployed.

Table A1 gives an indication of the size of the dataset. Over the period October 1988 to December 1997, the dataset records that approximately 1.2 million individuals experienced unemployment. That is, that slightly more than a third of the working-age population who were resident in New Zealand at some point during the nine-year period experienced unemployment. On average, each individual was unemployed 2.2 times and received 2.8 different assistance measures from the New Zealand Employment Service (NZES).

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**TABLE A1: The unemployment dynamics dataset, October 1988 to December 1997**

	<i>Spells</i>	<i>Average number of spells per jobseeker</i>
Unemployment spells	2,792,165	2.2
Spells of employment assistance receipt	3,467,302	2.8

The dataset provides a very useful source of information on jobseekers in New Zealand. It contains detailed information on jobseekers' unemployment history that is available over a reasonably long period of time.

Note, that the results derived from the DoL registered unemployment research dataset differ, to some extent, to the published results from NZES,<sup>20</sup> because the

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<sup>20</sup>This data was collected by the NZES. In 1998, NZES was integrated with Income Support to form Work and Income New Zealand (WINZ), and in 2001 WINZ became part of the Ministry of Social Development.

DoL dataset is based on different rules. The rules of the NZES focus on the day-to-day operations of the organisation, while the DoL data is designed to be a research dataset that examines the unemployment experiences of jobseekers. Accordingly, some dates in the research dataset are adjusted to reflect implied, rather than actual, periods of registered unemployment.

Another factor that leads to differences between the DoL dataset results and those of the NZES is that the DoL dataset on stocks of registered unemployment (snapshots of the register over time) have been derived from flow figures (inflows and outflows to the register) to ensure consistency between our stock and flow analysis. Stock counts derived from inflow/outflow data in the research dataset will not match NZES stock counts because of the date adjustments mentioned in the previous paragraph. Overall, the DoL registered unemployment research series is slightly higher than the NZES series.

## **A2 The unemployment register is not official unemployment**

The register is collected for administrative purposes rather than to measure unemployment. This means that the definition of registered unemployment differs to that of official unemployment, which is measured by the HLFS undertaken by Statistics New Zealand.

The register is a count of people who have registered for work with the NZES. The register includes those who have registered voluntarily as well as those who have done so as a condition of the receipt of income support.

In comparison, the official measure of unemployment classifies individuals as unemployed where they are not employed, and both actively searching and available for employment. The official measure of unemployment is consistent with the internationally accepted definition of unemployment. According to this definition, a person must not be working, and must be both 'actively seeking' and 'available for work'.

These differences in definitions and methodological approaches between the register and official unemployment can mean that those who are registered jobseekers are not necessarily counted as officially unemployed. Accordingly, an individual's registered unemployment spells may be different to their official unemployment spells.

The following are some of the key reasons that the register results may differ from the official unemployment results. First, some of those who are working part-time<sup>21</sup> may be registered as jobseekers if they are looking to increase the number of hours that they work. These jobseekers would not qualify as unemployed in the HLFS because they are in employment.

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<sup>21</sup> This refers to individuals who are working less than 30 hours per week.



Secondly, the HLFs criteria for job search and availability for work may not be satisfied by all those on the jobseeker register, given the different purpose of the register from official unemployment. Depending on whether jobseekers are registered as a condition of receiving the benefit (work-tested clients), job search and availability for work criteria may not always be strictly enforced. In addition, while work-tested clients are expected to look and be available for work, sometimes these clients may be eligible for exemptions from this criterion in the interests of flexibility and fairness.

Thirdly, the register is affected by operational policy changes in the provision of services to the unemployed, and official unemployment is affected by sample error.

Over time, the number of registered jobseekers has tended to be higher than that of official unemployed. The register has also tended to move similarly to the official measure of unemployed over the period covered by our dataset.

### **A3 The unemployment register is a form of administrative data**

Like a lot of information that is derived administratively, the DoL research dataset has a number of limitations, which are discussed below. Despite these limitations, the dataset provides information critical to understanding both the dynamics of unemployment, and the effectiveness of measure designed to reduce unemployment.

#### *A.3.1 Because the register is affected by operational changes, its definition may change over time*

For instance, over the period covered by the dataset, there have been small changes to rules around exits from the register. We believe that, because of their subtle nature, these changes will have had a real, but not dramatic, effect on the register over the nine-year period. Accordingly, we do not believe that the changes have significantly affected the data used for our research.

#### *A.3.2 The scope of the data is limited*

The database provides information on individuals when they are unemployed, but very limited information on what happens when they are not on the register. In addition, information in the dataset on other relevant issues, such as family circumstances and previous income is not included in the dataset.

#### *A.3.3 Missing data and data errors*

Information in the dataset was originally collected for the purposes of obtaining employment for jobseekers. Accordingly, the standards of data entry are not as rigorous as with that collected for statistical or research purposes. There are a

small number of cases with missing information or conflicting date information, as well as cases where the rules for the data entry have changed. Where possible, we have replaced missing values with information gleaned from other sources, and adjusted dates to remove inconsistencies with earlier or subsequent spells. We have attempted to minimise the impact of changes to operational policy by, for example, ignoring brief spells of less than two weeks off the register. Brief lapses off the register were used at times during the study period for compliance-related purposes. In most cases, a brief lapse off the register had no impact on either welfare entitlement or the jobseekers' experience of unemployment.