Unsupportable conclusions from NZIER study on 90-day trial policy

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Summary

On 2 February the New Zealand Institute for Economic Research (NZIER) released the publication "90-day trial periods appear successful". It concluded that "The analysis suggests that the policy has had a small but positive impact on the job numbers for SME employers, during a time when the labour market overall was shedding workers due to the recession."

However this conclusion is unsupportable. NZIER did not know if employers were using the 90-day trial. Instead they simply took as an indicator of "using" the trials the two factors that (1) a firm employed 1 to 19 staff and that (2) the time period was after the new law came into effect on 1 March 2009. This has several problems. We don't know if any change in hiring practice is caused by the new law, by a statistical artefact, or by the many other changes occurring around that time. Changes occurring at the same time included a set of government tax and other assistance targeted at small business, other stimulus measures which could have assisted small business disproportionately, and upheaval in the economy, international trade and job market in the depths of the recession. It could also be partly a statistical artefact.

The paper makes the elementary error of mistaking timing for cause. If a baby who drinks his mother's milk subsequently becomes a criminal, that does not tell us that breastfeeding causes crime. NZIER have drawn no link other than timing between the law change and any apparent change in small firm hiring patterns.

Further, they did not investigate job *losses* in any depth. If as many additional job losses occur as additional hiring then all that has changed is a loss in employee rights. A Department of Labour evaluation of the trials[1] found that a high 22 percent of the hirings under the trial ended in dismissals within the 90 days and notes that "The international literature suggests that exemptions to employment protection legislation, such as the trial period legislation, increase both hiring and firing but have an unclear overall impact on unemployment". NZIER's analysis of "separations" (employees leaving a job) is subject to numerous problems and cannot be relied on to answer this question. For example, "separations" do not distinguish voluntary departures from dismissals, and voluntary departures are likely to have fallen due to the scarcity of jobs. No change in separations may mean an increase in dismissals.

The 90-day trial at the period studied was available only to firms employing less than 20 staff. On 1 April 2011 it will be available to all firms. Unions and employment experts have expressed concern the law will not only be misused or abused (for which there is evidence in both the Department of Labour evaluation and in case histories compiled by unions) but that it encourages poor management practices. This is therefore an important policy issue which should not be evaluated using poor research methodology.

[1] "Trial Employment Periods – an evaluation of the first year of operation", by Roopali Johri and Louise Fawthorpe, Department of Labour, June 2010, available at http://www.dol.govt.nz/publications/research/trial-periods/trial-periods-evaluation.pdf and an analysis of it in the *Émployment Law Bulletin*, November 2010, by Bill Rosenberg.

Introduction

On 2 February the New Zealand Institute for Economic Research (NZIER) released a brief publication in their *Insight* series entitled "90-day trial periods appear successful". It concluded that "The analysis suggests that the policy has had a small but positive impact on the job numbers for SME employers, during a time when the labour market overall was shedding workers due to the recession."

The 90-day trial over the period of study was available only to firms employing less than 20 staff (which we will describe as "small firms"). On 1 April 2011 it will be available to all firms. Unions and some employment experts have expressed concern the law will not only be misused or abused (for which there is evidence in both an evaluation by the Department of Labour[2] and case histories compiled by unions) but that it encourages poor management practices. This is therefore an important policy issue.

However the conclusion of the study is unsupportable. NZIER did not know if employers were using the 90-day trial. Instead they simply took as an indicator of the trials being used the two factors that (1) a firm employed 1 to 19 staff and that (2) the time period was after the new law came into effect on 1 March 2009. They tested this using the two quarters of data (from 1 April 2009 to 30 September 2009) that was available. This has several problems. If there is a change in apparent hiring practice for those firms after that date, we don't know if it is caused by the new law, by a statistical artefact, or by some other changes around that time.

The paper makes the elementary error of mistaking timing for cause. If a baby who drinks his mother's milk subsequently becomes a criminal, that does not tell us that breastfeeding causes crime. NZIER have drawn no link other than timing between the law change and any apparent change in small firm hiring patterns. A link could be drawn if there was sufficient control for other factors that could have affected the relationship between small and larger firm hiring. As will be seen, NZIER did not control for several important factors, and those factors it did control for were over a four-year period, failing to isolate effects in the crucial two quarters.

Further, they did not investigate job *losses* in any depth. This is vital in judging the value of the trial periods. If as many additional job losses occur as additional hiring then all that has changed is a loss in employee rights. This is not mere speculation. The Department of Labour evaluation notes that "The international literature suggests that exemptions to employment protection legislation, such as the trial period legislation, increase both hiring and firing but have an unclear overall impact on unemployment" (p.27). NZIER's analysis of "separations" (employees leaving a job for whatever reason, voluntarily or involuntarily) showed no effect on their "90-day policy" indicator. But this is subject to the measurement problems as for hirings plus additional factors.

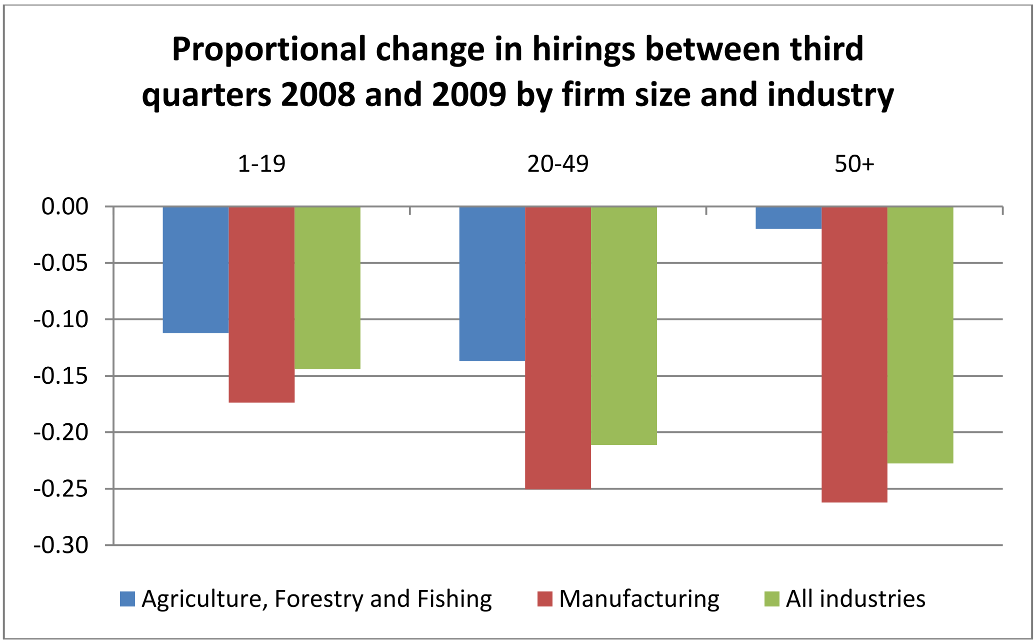
There are numerous other possible causes, and at least one statistical artefact that could lead to wrong conclusions.

[2] "Trial Employment Periods – an evaluation of the first year of operation", by Roopali Johri and Louise Fawthorpe, Department of Labour, June 2010, available at http://www.dol.govt.nz/publications/research/trial-periods/trial-periods-evaluation.pdf and an analysis of it in the *Émployment Law Bulletin*, November 2010, by Bill Rosenberg.

Other possible causes of changes in hiring patterns

Firstly, as the NZIER paper acknowledges, this was a turbulent time in the New Zealand and world economy. The recession had troughed in terms of GDP in the previous quarter (ended 31 March 2009) and output was recovering only very slowly. Unemployment was rising steeply throughout 2009, and there were grave uncertainties for both the New Zealand and world economy with little confidence among businesses. Differential changes in the labour market were very likely to occur in these conditions. For example, exports other than some primary commodities, were hard hit in the recession, and even primary export prices had fallen steeply in 2008 and early 2009 before beginning to recover (in New Zealand dollar terms) during the third quarter. Firms engaged in exporting manufactured goods tend to be larger ones; the exports that fared better are dominated by smaller employers such as farmers. In any case, the first of the two quarters tested (April to June) is largely off-season for many primary producers, and so any major employment effects would be unlikely to show until the new season was underway part way through the third quarter and in the final quarter of the year. NZIER did not control for trade effects, and its control for different behaviour in different industries was for a four-year period, not for the two quarters in question.

The following figure compares the third quarters in 2008 and 2009. Agriculture, forestry and fishing was reducing hirings at a slower rate than firms in general, though in fact its small firms (many of them farms) were cutting hiring much more steeply than large ones, contrary to the general pattern. In manufacturing, hiring cuts in all firms were above average, but manufacturing employment is dominated by large firms. At February 2009, almost two-thirds of employees (62 percent) were in firms employing 50 or more, and less than a quarter (23 percent) were in firms employing 1 to 19 staff. Exactly the reverse was true in agriculture, forestry and fishing where 63 percent of workers were in small firms and only 22 percent in 50+ size firms. It is possible that the relative change in behaviour between small and large firms in the whole economy is in part because large firms were hit hard by the fall off in world trade, and less because there was an increase in hiring by small firms.



Source: LEED quarterly Accessions and Separations by Size of Firm to September 2009, Statistics New Zealand

Secondly, in response to the crisis, in early 2009 the government announced a set of policy changes and expenditure initiatives, some of which were specifically aimed at assisting small firms, and others which could well have benefitted small firms disproportionately. The specifically targeted initiatives were announced on 4 February by the Prime Minister[3], who described them as "a small-business relief package to help lighten the load on the small and medium-sized businesses" and included "a suite of 11 tax changes costing $480 million, an expansion to the export credit scheme, extended jurisdiction for the Disputes Tribunal, expansion of business advice services, and a prompt-payment requirement for government agencies". The tax changes took effect from 1 March or 1 April 2009 and were expected to cost $480 million over four years. On 11 February 2009 the government announced[4] that "almost $500 million worth of publicly-funded building projects will be accelerated", saying that "about $100 million worth of fast-tracked projects will start before June 30 this year". The announcement asserted that the projects would "will employ New Zealanders and create work for businesses in regions, whether they are builders, plumbers or electricians. And their benefits will flow through communities by helping keep suppliers and sub-contractors, shopkeepers and sales staff in business." Clearly it was anticipated that these would provide work for small businesses within the period of the study. Also taking effect on 1 April 2009 were personal income tax cuts.

Any of these could have affected the hiring patterns by small firms relative to larger businesses. Some were designed to do so.

Statistical artefact

There is at least one statistical artefact that could contribute to wrong conclusions. Many firms of all sizes were laying off staff before and during this period. That means that some firms with 20 or more employees were shrinking and joining the firms of less than 20 staff which NZIER assumed were using the 90-day trial. At some point these shrinking firms would resume hiring, but by then be classified as "less than 20 staff", making it appear that hiring among small firms was stronger than other categories simply because more firms were being added to that category from "above", regardless of whether they were using 90-day trials. That would at least partially compensate for the shrinkage in firm size, firm numbers and hiring that was occurring among the firms with less than 20 staff.

Changes in firm numbers between February 2009 and 2010

	Firm size (employees)						
	0	**1 to 5**	**6 to 9**	**10 to 19**	**20 to 49**	**50 to 99**	**100 +**
Change in number of firms, February 2009 to 2010	-1.6%	-2.3%	-2.5%	-0.2%	-2.6%	-0.4%	-3.3%

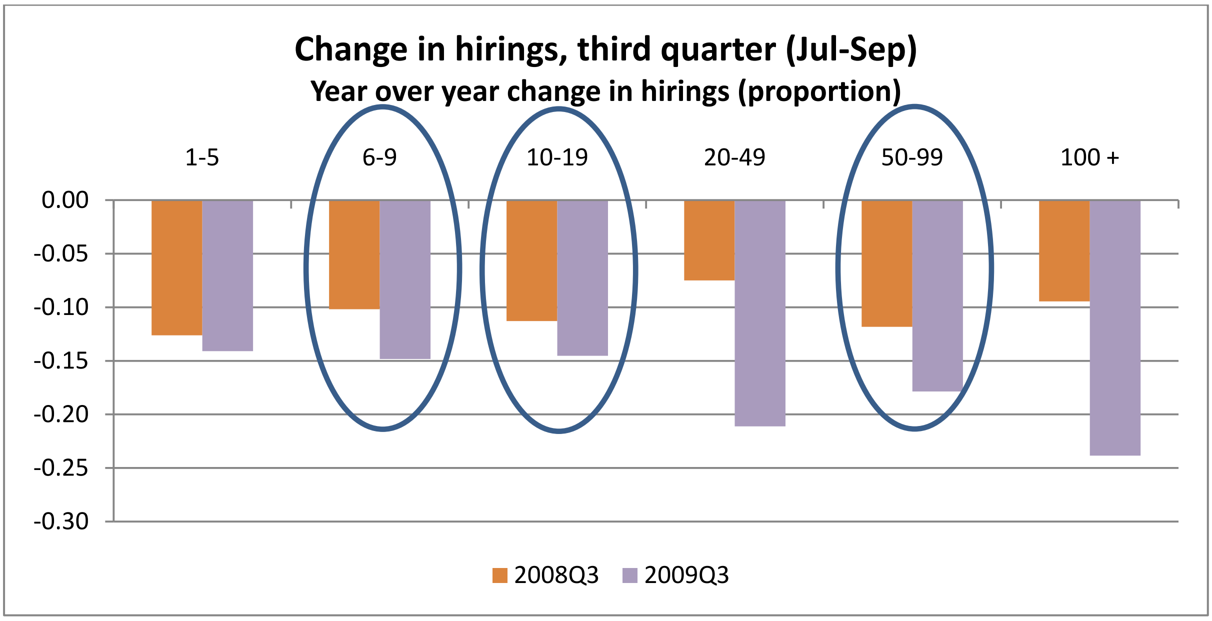
Source: New Zealand Business Demography Statistics, Statistics New Zealand

There is suggestion of some of this sliding down the firm size scale in Business Demography Statistics from Statistics New Zealand which show (see the table above) that between February 2009 and February 2010 (quarterly values are not available), the largest percentage fall in firm numbers was in firms of 100 employees or more, which fell by 3.3 percent. The next category down, size 50-99 employees, reduced by only 0.4 percent. The category after

[3] See for example "National focuses on jobs and growth with Package", 4 February 2009, http://www.beehive.govt.nz/release/national-focuses-jobs-and-growth-package.
[4] "Fast-tracked public projects give $500m boost", 11 February 2009, http://www.beehive.govt.nz/release/fast-tracked-public-projects-give-500m-boost.

that, 20-49 employees, had the next largest fall of 2.6 percent and the one below that, the first of the small firm categories with 10-19 employees, reduced by only 0.2 percent. But the other two small firm categories, 6-9 employees and 1-5 employees reduced by the higher 2.5 percent and 2.3 percent respectively. It could well be that some 100+ size firms were “falling down” into the 50-99 category, and that some 20-49 size firms were falling down into the 10-19 size (small firm) category reducing the fall in size of those lower categories.

Looking at the Linked Employer-Employee Data (LEED) in more detail than in NZIER’s paper, as the figure below shows, there was not a great difference between the proportional change in hirings between 2008 and 2009 in the larger 50-99 firm size category and the small firm 6-9 and 10-19 size categories (6, 5 and 3 percentage points respectively). Quarter 2 changes were much less marked than Quarter 3. So the contrast between small and large firms is not as great as painted by NZIER – and some of the effects shown in their paper and here may be simply an artefact of how firm categories change as firms shrink during recession, and how NZIER grouped the firm sizes for analysis.



Source: LEED quarterly Accessions and Separations by Size of Firm to September 2009, Statistics New Zealand

Dismissals

Another problem with NZIER’s report is that in analysing dismissals, they consider only “separations”. Separations measure both voluntary and involuntary departures. A rise in involuntary separations (dismissals) might signal a problem with the 90-day trial whereas a rise in voluntary separations is less likely to be connected (indeed it could reduce voluntary separations if employees are reluctant to undergo a 90-day trial by changing to a new position). In a difficult job market we would expect voluntary departures to reduce because employees will have increased difficulty in finding other jobs and will put a higher value on the security of an existing position. If the pattern of separations was not significantly changed, as NZIER found, it is likely that the proportion of dismissals had increased, as predicted by the international literature cited by the Department of Labour. However a quarterly analysis will not necessarily give an accurate picture: given the 90 day length of the trial, many dismissals from one quarter will occur in the following one. NZIER’s analysis of just two quarters, and looking at each quarter in isolation from the previous or next one, is likely to suffer from this problem.

The above statistical artefact could also reduce apparent separations if the newly shrunk firms joining the small firm categories had reached their lowest point. They would cease laying off staff and at some point could resume hiring, or hire staff to new positions created in a restructuring.

Conclusions

These are not necessarily the only possible alternative explanations of NZIER's results. We simply don't know without a more careful exploration than NZIER carried out. However, it is clear that NZIER's conclusion is not supportable by the evidence presented. To use their concluding words, their analysis *does not* "suggest that the [90-day trial] policy has been a success to date, demonstrating the value of flexible labour markets to employers and employees alike." It is far from safe to conclude that "This success is likely to continue when the trial period policy is extended to all firms in the New Zealand economy."

To investigate rigorously, the behaviour of individual firms would need to be followed during the period, and other possible causes controlled for. We would need to know whether each firm was using the 90-day trial policy (we know that only half of the employers surveyed by the Department of Labour for their evaluation were using the 90-day trials, and some of them had used trials, possibly illegally, before the law came into effect, further muddying NZIER's results). It is possible to follow firms using unit data from the LEED surveys that NZIER used in aggregate, but it would not be possible to identify whether they were using the 90-day trials for individual appointments. A random sample methodology similar to the Department of Labour's evaluation, in which information can be gathered from individual employers, is probably necessary.

The NZIER paper deviates from accepted standards for reporting research findings. It fails to clearly describe the data it uses, specify the model it uses or provide its statistical results in full. While it acknowledges that there may be other factors causing the apparent change in hiring behaviour, there is no attempt to specify them clearly, let alone control for them. There is not even a token review of relevant research literature other than a dismissive reference to the Department of Labour study. It is evident that more attention to the literature would have enabled a better specified model and methodology.

The NZIER does perform a public service in providing brief reports on items of interest. However brevity and topicality should not be allowed to outrank good scientific method.

This is a major and contentious issue because it impinges on important internationally recognised work rights of New Zealand employees, and the availability of not only jobs, but of work under conditions of dignity. It deserves serious and soundly based scrutiny.

As it stands, the findings reported by NZIER lack validity. There is no basis for NZIER and the Minister of Labour to present these findings as evidence that the 90-day trial period policy has resulted in the creation of jobs.