



## THE MAORI IN THE LABOUR FORCE

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### Abstract

*This paper reports on a study commissioned by Te Puni Kokiri, based on a larger data base mainly from the 1991 Population Census. As well as demonstrating and extending the standard conclusion that Maori are in markedly inferior positions in the labour force compared to the non-Maori, the paper reports an econometric study which suggests that this is primarily due to some 'Maoriness' factor. An example would be that since social networks are the main means by which people obtain jobs, the individual Maori is disadvantaged by her or his network being more jobless. The study goes on to develop the relevance of dual labour market theory to an understanding of Maori labour force performance, and proposes a more elaborate model of the labour market than that which is usually used. The main findings are reported below, and suggested future research directions complete the paper.*

Earlier this year I was commissioned by Te Puni Kokiri (The Ministry of Maori Development) to write a report on Maori in the labour force,<sup>1</sup> using the 1991 population census from Statistics New Zealand (Te Tari Tatau).<sup>2</sup> This paper, which is a summary of that report,<sup>3</sup> uses the Maori experience to discuss some more general issues of labour force structure, especially that summarized in the notion of the dual labour market.

I decided at an early stage that it would be little point reporting that the Maori was an inferior position in the labour force in New Zealand. This fact has been known for many years. It would be a waste of a new data base to simply confirm an old story. The report tries to say some new things, especially by locating the Maori in the mainly secondary labour market of the economy.

### Main findings

The main source of the data used in the report was an extensive set of tabulations commissioned by Te Puni Kokiri which describe the state of the Maori in the early 1990s. The largest set came from the 1991 Population Census, but these were supplemented by data from the 1991 and 1993 Labour Force Surveys. Unless otherwise stated, all definitions used in this report are those of the Census (and Survey).

1. The Maori is in an inferior position in the labour force compared to the non-Maori.
2. The Maori are more likely to be Not-in-the-Labour Force and more likely to be unemployed.
3. When these two effects are combined together the Maori unemployment rate is not the 2.7 times the non-Maori rate that the official definitions showed in 1991, but 3.9 for males and 4.5 times for females.
4. The analysis confirms that when the Maori is employed, they are more likely to be in the secondary part of the labour market, that is with low quality jobs in terms of remuneration, working conditions, career opportunities, and job security.
5. Crucial for understanding the labour market is the flux between the unemployed, those not-in-the-labour market, and those in secondary employment. This churning means there is a dynamic process going on.
6. Because of the higher incidence of not-in-the-labour force, and in secondary employment it is unwise to focus on Maori unemployment. At issue is the high proportion of the Maori in the secondary labour market in comparison with the non-Maori. Some policies merely shift people between the different parts of the secondary labour market.
7. Econometric work suggests that only one third of the difference between Maori and non-Maori employment participation can be explained by the personal characteristics measured in the population census.
8. The report acknowledges there may be other personal characteristics not measured, which also have an influence.
9. However it seems likely that the most important deter-

minants of the differences are social variables, summarized in the concept of 'maoriness'. A possible practical example is that it is known that the most important source of job recruitment involves family and friends. The Maori is handicapped in doing this because of their lower employment rates, but also possibly because the Maori network is not as geared as the non-Maori family to carry out this task.

### Maori unemployment and the dynamics of the labour market

According to the 1991 Population Census, the Maori male labour force was 87,519, of whom 66,726, had either a full time or part time job and 20,796 did not, being unemployed and actively seeking work. The ratio of unemployment to the total labour force (i.e. 20796/87519) gives a Maori male unemployment rate of 23.8 percent. Compared to the non-Maori the unemployment rate is 2.7 times higher for males and females. However this figure does not compare like with like, for the populations have different demographic characteristics.

Suppose we assume that the Maori actually had the same age specific participation labour force participation rates as the non-Maori. This is to have the effect of treating the depression in Maori participation rates as a result of there being Maori who were unemployed but did not report their state as such. Adding them to the total unemployment, we obtain unemployment rates for the Maori of 33.9 percent for males, and 41.4 percent for females. If the Maori had the age-specific labour force participation rates of the non-Maori, their unemployment rate would be 3.9 and 4.5 times the non-Maori rates respectively.

The employment and unemployment debate is usually in terms of jobs, with little consideration of the quality of the employment or unemployment. This is partly because the data is usually collected on a headcount basis, as is almost inevitable for a population census. In effect there are three qualities of 'work' identified: being employed, not being employed but actively seeking work, and not seeking work and so not in the labour force.

The notion of the 'quality' of unemployment is not an attempt to make unemployment appear more onerous than it is. Undoubtedly for many unemployment is extremely onerous. There is good evidence to show that unemployment correlates with morbidity and mortality (especially suicide) both for the unemployed and the unemployed's family.<sup>4</sup>

However that is not true for all unemployed, and it was probably not as true in the 1950s and 1960s when the unemployed had a reasonable chance of obtaining work not long after they required it. Certainly there might be the trauma of redundancy, and some anxiety about obtaining the next job, but such psychological pressures were much less than today for the averaged unemployed.

Today there are still workers who become unemployed

and yet do not suffer severe trauma. Typically they are well skilled with prospects of a good job if they search conscientiously, and with adequate finances (perhaps out of their savings and redundancy payments or with the support of a spouse). They may even enjoy the enforced holiday as they diligently and confidently seek alternative employment.

That this occurs for some but not others has profound implications for the meaning of a full employment economy. In the future, as in recent years, there will be redundancy as firms respond to technological change, demand shifts, and external market movements. Some of the redundant will be temporarily unemployed. In a dynamic growing economy full employment is literally impossible, since there will always be some workers between jobs. Yet we may be well satisfied if the unemployment which comes from such redeployment is of a high quality in the sense that the unemployed and their families are not under psychological or economic stress, and if their morbidity and mortality are not elevated as a result.

That ideal stated, there are the unemployed who are under severe stress today. We would like to divide out according to some measure of quality of their state of their unemployment, but that is not easy with the current data bases. One attempt is to separate out the long term unemployed, usually defined as those who have been unemployed for more than six months.

However there are at least two major omissions with this definition, both of which involve a more dynamic labour force than a casual view at the snapshot implies. First there are the unemployed who have not yet been unemployed for six months, but ultimately will be. They may already be under similar stress to the long term unemployed. Second there are those who experience frequent bouts of unemployment, even though they may never have been unemployed for, say, six months at one time.

Not only are there different levels of quality in the unemployment experience, but there are different levels in quality of the employment experience. Economists conventionally divide the employed labour force into two - the 'primary' and 'secondary' markets, adding the unemployed to the secondary market, which consists of the low quality jobs and the unemployed. Those in the primary labour market have good pay, working conditions (including job security), and good career prospects. On the other hand those in the secondary labour market experience poor pay, poor working conditions, poor career prospects, job insecurity, and frequent unemployment. This is distinction is the underlying notion in the theory of the dual labour market.<sup>5</sup>

The characteristic experience of those in the secondary market is in a flux, a continual churning from employment to unemployment and back. Being employed may be better than being unemployed, but not that much better. In any case such employed may soon be unemployed again.

The Maori appear relatively more frequently among the unemployed, but we shall see they are also relatively more involved in the poor quality jobs in the secondary labour market, and that they experience more labour market churning. Of course this hypothesis does not deny that there are non-Maori who are also in the secondary labour market.

The existence of a secondary labour market has policy, as well as empirical, implications. We might ask to what extent is employment policy merely about shifting the unemployed into employment in the secondary market with the prospect of reverting to being unemployed, speeding up the churning rather than offering the unemployed prospects in the primary labour market. This may be better than doing nothing, but is it the best we can do?

Or to put the same point more positively, we might ask can employment policy be reoriented to enable those who go into employment in the secondary market, the opportunity to shift themselves into the primary market, thus breaking out of the loop of churning from unemployment to secondary employment and back.

### **The theory of the dual labour market**

Dual labour market theory argues the labour market can be segmented into (at least) two parts, flows between which are seriously impeded. It is not difficult to see a job quality spectrum in the work force with at one end a set of 'good' jobs and at the other end of 'bad' jobs. At the top end working conditions are characterised by high pay, promotion prospects, good security, quality working conditions, and attractive fringe benefits. At the other end the workers have jobs which are poorly paid, with little prospect of advancement, poor working conditions, and insecure tenure. Such work is often intermittent and its workers can be frequently unemployed.

At issue is what happens in the middle of this spectrum. As Robert Bowie has pointed out, the distribution of the jobs along the quality spectrum could be unimodal, suggesting a considerable connection within the work force, or it could be bimodal suggesting a segmentation of the labour force into primary and secondary labour markets. Which is in practice most true is an empirical question which cannot readily be resolved (Bowie, 1983).

An alternative approach is to investigate the extent to which the labour force is interconnected. It is idle to assume that an unemployed teenager in Kaitia is a ready substitute for a senior Treasury official in Wellington, but we might ask how the change in either's work situation influences the work situation of the other. Any answer involves a time dimension. We would not expect an immediate response at the lower quality end of the labour market to a change at the higher quality end, but we could envisage that the changes percolate through over time. That raises the empirical question as how far they do, and how long it takes.

If changes transmit quickly, the labour market may be treated as reasonably homogeneous - as is implicitly assumed in much economic discourse. If the time involved is years or even generations, then practically the labour market may be treated as heterogeneous and segmented.

A worker's place on the quality spectrum can change over time. Many adolescents in low quality jobs in the retail and fast food firms are tertiary students in training for quality professional positions. But it is also possible that work experiences and on the job training enable workers to upgrade their position, moving steadily up the work quality ladder.

What systematic evidence do we have of the degree of segmentation in the New Zealand labour market? Using existing statistics Bowie provides circumstantial evidence that there is a group whose working conditions were analogous to those in a secondary labour market. He noted that women and ethnic minorities, including the Maori, appear more likely to be among that group.

Sociologist Susan Shipley surveyed 750 households in Palmerston North, mainly from the perspective of women in the labour force. She found that part time workers were more predominantly female and that gender segmentation was more marked in the full-time labour force, and argued that this pointed to labour market duality.

The evidence that women and men have different occupational profiles and that it was taking such a long time to break those differences down, suggests that there was not a great deal of mobility in the labour market, except slowly through time. A dual labour market would be the minimum segmentation required to explain this gender differentiation.

Two statisticians at the Department of Statistics used income tax data to identify income profiles over time.<sup>6</sup> They found that the 81.6 per cent of the salary and wage earners who were in the highest income quintile in the 1980 tax year were still in the top quintile in 1981. Seven years later 55.9 per cent were still in the top quintile. After various adjustments that suggests a relegation of top-income employees into lower income brackets of less than 3 per cent a year.

The picture for those lower in the income stakes is of greater instability, but there is no great expectation for advancement. Suppose an employee was in the middle quintile in 1980. Then the chances of being in the top quintile seven years later was 9.5 per cent. That probability includes young professional workers starting out on a career and quickly increasing their income.

The income statistics, which include the unemployment benefit, do not capture well the churning between employment and unemployment. A report prepared by the Department of Labour provides further insights, using the data from the registered unemployed.<sup>7</sup> Over the period from

October 1988 to June 1993, 754,312 enrolled on the New Zealand Employment Service register. To give some idea of this magnitude the average size of the labour force was about 1,612,000 people, so this number represents about 47 percent of that total, or around 10 percent of the labour force each year, over a period in which the average rate of unemployment at any point in time was 8.7 percent.

In fact more than 1,612,000 people were involved, because of inflows from school leaving, returning to work and immigration, and outflows from retirement, temporarily leaving the labour force, and emigration. On the other hand there were people who became redundant, but did not register with the New Zealand Employment Service. Whatever the true figure, it is a very large proportion of the labour force.

Those that enrolled more than once, are counted but once in the above total. It would seem that at least 21 percent of the labour force experienced repeated unemployment in less than five years period, and 1 percent experienced it on five or more occasions. The average number of enrolments was 1.78 times for non-Maori, and 2.18 times for the Maori. The average cumulative duration on the register was 59.2 weeks, the Maori averaged 68.8. weeks. The register does not pick up all the churning, but the available data is indicative that it was substantial in recent years, moreso among the Maori.

The main report has an entire chapter which compares the characteristics of the employed Maori and the non-Maori in regard to their occupation, industry, training, and employment status. The conclusion from the data is that the Maori is in an inferior position in employment compared to the non-Maori, despite there being proportionally fewer Maori employed.

Thus the Maori are more common in those occupations which are unskilled, and for which there is a larger demand among the unemployed. Similarly the Maori have fewer occupational skills - fewer than the non-Maori who are a generation older. And the Maori are less likely to be in the top part of the labour force, as employers, self-employed,

managers, and professionals - the people who directly make employment decisions about who is to be employed, and whose wider compass of the labour market enables them to assist their relative and friends - those in their own social networks - to find positions.

### Personal characteristics and Maori employment: An econometric study

Defining the employment participation ratio (EPR) as the proportion of a population (or subgroup) who are employed, then the Maori has a low EPR. One of the reasons the Maori experiences a lower EPR than the non-Maori is because they are worse off, in regard to a number of key personal characteristics important to acquiring work. Proportionally more Maori are among the young, who are less attractive to employers and fewer have high educational qualifications which are associated with better job prospects.

Thus low employment might not be merely associated with 'maoriness' per se, but because the Maori is more likely to have characteristics which are associated with not being employed. Insofar as this is true there is a tendency to overstate the severity of Maori unemployment, by confusing it with the severity of unemployment among the youth, the unskilled, those in the most marginal regions, and so on. On the other hand there may be a 'maoriness' factor.

Standard statistical techniques enable the separation out of the effect of these other variables from the effect of 'maoriness' on the likelihood of being employed.<sup>8</sup> The main report provides a layperson's guide to the underlying ideas. Here we report the conclusions.

By comparing the actual personal characteristics of the Maori and the non-Maori, and their effect on employment using the econometric equation's coefficients, we can divide the total difference between the Maori and non-Maori EPRs up as shown in Table 1.

A main identified effect is that the Maori has inferior

**Table 1. Differences between employment participation rates (EPR) of Maori and non-Maori, 1991**

	Percentage Points	Percent of Difference
Non-Maori Employment Participation Ratio	51.2	
Effect of		
Maori being younger	-.7	3.9%
Gender proportions	-.1	0.3%
Maori being less qualified	-2.4	13.0%
Maori in less favourable family situation	-3.0	15.7%
Regional and location differences	+.1	-0.5%
Other, including "maoriness"	-12.7	66.6%
Maori Employment Participation Ratio	32.4	

Source: 1991 Census, Special tabulation, Statistics New Zealand

qualifications, costing them about 2.4 percentage points in unemployment. Slightly larger, amounting to 3.0 percentage points, is that the Maori tends to be in family situations associated with lower level employment. Inspection shows the Maori is more likely to be a sole parent, which generates a difference of almost 18 percentage points by itself. The remaining effects are all small.

But as interesting as are these differences, or lack of them, the important point is that they explain only a third of the total. The rest is a residual, including other factors (which correlate with being a Maori, such as poor health), and 'maoriness'.

Thus there is not (so much) a Maori unemployment problem, but a Maori employment problem. It has two components:

- \* The Maori young have less appropriate personal characteristics, which reduces their employment participation ratio by around 6 percentage points compared to the non-Maori in the same age group; in addition
- \* There is a further reduction which at this stage is attributable to a 'maoriness' factor, not covered by the census identified personal characteristics which reduces the age group's employment participation further.

### Statistical models of Maori employment

This report has tried to use a new extensive data base to say new things about the Maori in and out of the labour force. This has involved thinking about employment issues in different ways from the conventional wisdom. That is especially important because thus far the existing approach has proved unable to provide a framework which has contributed to improving Maori in the labour force relative to the better performing non-Maori. So here we summarize the theoretical development.

When we usually think about the prospects of employment we typically use a model which divides the population with which we are concerned into two groups:

**MODEL I:** The relevant population consists of

EMPLOYED + UNEMPLOYED.

An important feature of this approach is that it ignores those not in the labour force. If it had to be more specific it might be that it is assuming that decisions to be not-in-the-labour-force (NILF) are independent of the state of the labour market. In practice many of the NILF are there because they do not think it is worth pursuing employment, even if they would like work.

In the wider context, this means that changes in the state of the labour market, will affect the size of the NILF. For instance an improvement in opportunities for work may encourage some previously NILF to seek jobs, and join the

unemployed. Employment growth may not be associated with comparable unemployment reductions. This does not mean that additional employment is not a solution to the nation's unemployment problems. Rather it says that the standard definition of unemployment - set by international conventions and useful for international comparisons - may not be the best measure when thinking about unemployment in other contexts.

For the Maori the issue of definition is even more acute. We saw that there were relatively more Maori NILF, than non-Maori. When personal characteristics were the same, the likelihood of the Maori in the 15 to 24 age group of being NILF was 7 percentage points greater than the non-Maori.

Whatever the justification for retaining Model I for general labour force analysis, when Maori issues are being considered in relation to the non-Maori a better approach might be to divide the total relevant population into two, rather than just dividing the labour force as in Model II.

**MODEL II:** The relevant population consists of

EMPLOYED + NOT-IN-EMPLOYMENT,  
or  
EMPLOYED + (UNEMPLOYED and the NOT-IN-THE-LABOUR FORCE)

The report used the MODEL II approach, especially in a dynamic context where there is considerable interchange between not-in-employment (NIE) and being employed. This interchange applies only to some people for there are those who are almost permanently in employment, except by choice (e.g. retirement), and there are those who are in an ongoing flux interchange between being employed and not being employed.

We know only a little about the size of this flux, although the scattered evidence suggests it is not insignificant for many workers. The higher flux is usually associated with poorer quality jobs, where the workers experience poor remuneration, few fringe benefits, poor working conditions, and poor career opportunities, as well as job insecurity.

In effect Model II is being extended. Its central notion that a wider group of the population than just those in the labour force (i.e. Model I) is retained. But now the division is not the static one of whether at an instant in time the person is employed or not. Rather it is the dynamic one of whether the person is experiencing high quality employment with a reasonable degree of job security and other favourable characteristics through time, or whether they are in the remainder of the employed labour force or not in employment.

Those in quality employment are in 'primary employment', and those otherwise employed as being in 'secondary employment'. As noted above, there is no agreed

expression for the grouping of those in secondary employment and unemployed or NIE, and we do not propose one here. Perhaps it is right that the Model III should be expressed a little more clumsily, reflecting its greater complexity.

**MODEL III:** The relevant population consists of

**PRIMARY EMPLOYMENT + (SECONDARY  
EMPLOYMENT or NOT-IN-  
-EMPLOYMENT).**

We now hesitantly explore the proportions of each who might be said to be in primary employment. Our approach is going to have to use income as a proxy for quality of work experience, choosing a line somewhere along the income spectrum which divides the employed into the primary and secondary sectors. Inevitably the division is going to be arbitrary, but we try to minimize the subjective choice by offering a systematic way of deriving it.

Most people would expect that the majority of those whose occupations are classified as 'elementary' to be in secondary employment. There will be exceptions - most obviously those employed in the public sector might have better working conditions than their remuneration might indicate, while others will work long hours obtaining high pay despite poor working conditions.

In 1991, 71,442 residents reported themselves as gainfully employed in the full-time labour force in jobs whose descriptions were summarized as 'elementary occupations, including general labourers and associated occupations'. As it happens half the males (and 80 percent of the females) classified in elementary occupations had an income of \$20,000 a year or less. This figure is equivalent to 61.5 percent of the average weekly wage for the year to March 1991. We use this income level as a crude cutoff between secondary and primary employment. For these purposes the exact line does not matter, because the concern is a comparison between Maori and non-Maori. We would be less confident of the robustness of the line for other purposes.

Application of the line to the all employed (full time and part time, male and female) shows that 42 percent of the non-Maori and 52 percent of the Maori had an income of

\$20,000 a year. As percentages of working age population (15 to 60) the breakdown for the two groups are shown in table 2.

What is evident enough is that the Maori has proportionally fewer of its working age population in primary employment. Using the \$20,000 cut-off, the difference is 11 percentage points. Ironically the proportions in the secondary employment and NILF are much the same. Arithmetically the greater proportion of non-Maori in primary employment is offset by a similar magnitude difference of Maori who are unemployed.

There are a couple of caveats to this conclusion, both of which downgrade the Maori experience further. First, the ratio of unemployed to secondary employment is higher for the Maori than the non-Maori. Given the churning between the two states, Maori secondary employment is probably inferior to the non-Maori one.

Second, many people who are eventually in primary employment go through secondary employment experiences when they are young. The most common experience is when they are acquiring their qualifications, and work (part-time or part-year) in quite low grade jobs to supplement income. Typically this is not a career path, insofar as the secondary jobs do not lead to better quality primary jobs. More likely, on graduation they give up the work and enter the primary labour market for the rest of their life. It seems that a higher proportion of the young non-Maori are in the secondary workforce as a temporary stage of their life employment cycle. Conversely proportionally more of the Maori are condemned to it for an entire lifetime, except when they are unemployed.

We saw there seemed to be a 'maoriness' factor in labour force performance insofar as only a third of the difference between the employment participation of the young Maori and non-Maori could be explained by differences in recorded personal characteristics. It is possible that some significant unrecorded personal characteristics could be omitted. Health is an obvious candidate. But they seem unlikely to explain the remaining two thirds of the gap. The main report also considers, and rejects as likely to be unimportant genetic predisposition, attitude differences, and also considers briefly employer discrimination.

**Table 2. Labour market categories by Maori and non-Maori**

	Maori	Non-Maori	Difference
1. Primary Employment	29.1	40.1	+11.0
2. Secondary Employment	31.5	28.7	- 2.8
3. In Employment (=1+2)	60.6	68.8	+ 8.2
4. Unemployed	15.6	7.0	- 8.6
5. Not-in-the-Labour Force	23.8	24.2	+ .4
6. Not-in-Primary Employment (=2+4+5)	70.9	59.9	-11.0

The explanation suggested below has two major differences from a standard economic analysis, which underpins much of the conventional wisdom's labour market thinking;

First social, and not just personal, characteristics are involved. As Mark Granovetter argues, economists assume the social context in which they carry out their analysis.<sup>9</sup> This is a sensible research strategy, until the issue becomes one of comparing two different social contexts, such as between Maori and non-Maori. At that point it is necessary to focus on the social context more directly.

It is difficult to obtain good quality measures of critical social variables at a national level. For instance it may argue that what is crucial for the Maori is the whanau or hapu, rather than the household in which they live. It is not, however, easy for a national census to obtain such information. Ethnicity is perhaps the only social characteristic easily recorded. What the research is reporting then, is that the one available social variable explains around two thirds of the difference in employment between the two groups (table 1).

The second difference arises out of the first. The analysis must be historical. While it is possible to explain personal differences in terms of an instant in time, social characteristics evolve through real time. How from this perspective, might we explain the 'maoriness' factor?

A crucial issue in obtaining work may be the process by which it is obtained. For instance very often the critical step in acquiring employment is a network of people typically employed themselves who are informed about the local (or relevant) labour market.<sup>10</sup> Thus if one's family (or whanau) and social groups are unemployed, have poor quality positions, or are not-in-the-labour-force the individual has less information about job prospects and likely to remain unemployed. Insofar as this vicious circle is important, and the Maori as a group has lower rates of employment then each individual Maori dependent upon a Maori network has lower chances of obtaining work in comparison to a non-Maori in a better connected social network. That the Maori as a social group are unemployed reduces the chances of each Maori in the group being employed.

This network theory of obtaining employment is a scientific hypothesis insofar as one can envision systematic empirical investigations which may reject or support the hypothesis. What we can say however is that the evidence in this report is consistent with an account that unemployment in a social group feeds upon itself. That even older Maori are more likely to be not-in-employment, reduces the effectiveness of parents finding work for their children. The effect is probably compounded by the lower participation in primary employment, where job opportunities for family and friends may be more easily observed. Why have the Maori got into this situation in a way that the majority of the non-Maori have not? The simple notion is

"cumulative causation".

The destruction of classical and post-classical Maori society in the nineteenth century, left the Maori as a rural, poor, landless, and marginalized people. From the mid twentieth century the Maori began to move to the cities, drawn there in part by the favourable labour markets. However they were not there long enough to bed in before unemployment began to rise to serious levels in the 1970s. Thus they were trapped with a labour market configuration based on rural experiences migrating into a tight employment labour market, when the labour market deteriorated and no longer needed those workers. If job discrimination had been important in the past that would have set back even further the adaption to urban market conditions.

I suggest, hesitantly, that despite its strengths the Maori network based on hapu, iwi, and broader groupings of Maoridom, may not be as well organized as the non-Maori family to find work for its children and family. The strength of a Maori network is impressive for some occasions, such as the tangi and hui, which evolved as a response to fundamental events which occur in non-market societies too. But the network never had the chance to evolve into a job finding agency for its people, something which is specific to a market society.

### Future research

No research study is complete. A good one resolves some questions, and poses or sharpens other. Here are some research issues which come out of this study.

1. How do people obtain jobs? How much does success depend upon a social network, and how much on institutions such as advertisements and employment agencies.
2. A survey of employers might complement the previous study. How do they recruit? How important are advertisements and agencies, especially for low skilled labour?
3. Can we better characterize the dual (segmented) labour market, giving the hypothesis a richer empirical foundation, and using it to more comprehensively describe the employment experiences of people?
4. A complementary study would be to investigate churning in the labour market.
5. There still is the question of whether the gap between Maori and non-Maori is narrowing in employment terms.
6. At a very desegregated level it might be possible to identify those large occupational groups in which the Maori do poorly in employment terms. This could lead on to ask whether any causes of such a situation can be identified.

7. The econometric work at Statistics New Zealand could be extended. Of particular interest would be to treat education as a part of the dependent employment variable.
8. There is a potentially interesting investigation to assess to what extent the historical experience of each *iwi* (as reported in the 1991 Population Census) is reflected in economic performance.

Policy implications are discussed in the main report.

## Notes

1. Throughout the report, unless otherwise stated, "Maori" refers to those who describe their ethnicity as whole or part Maori.
2. Neither agency is responsible for the views (or errors) in this report.
3. Easton, 1994.
4. Easton, 1990.
5. The most important New Zealand studies include:  
Bowie, 1983 The peripheral labour force : 49-70  
Bowie, 1983 The dual labour market : 71-94  
Easton, 1991  
Shiple, 1982 : 141-144
6. Smith & Templeton, 1990
7. Department of Labour, 1994
8. The econometric work was carried out by Diane Craig at Statistics New Zealand. She is not responsible for the interpretation I give to her work.
9. Granovetter, 1992 : 233-264
10. Granovetter, 1974

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