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*Te Kaunihera Whakakaupapa
Mo Aotearoa*

Implications for Maori Development
Economic and Sectoral Trends to 1997

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1. Introduction

This paper is designed to be a companion to the New Zealand Planning Council publication *Prospects: Economic and Sectoral Trends to 1997*. It will attempt to highlight and analyse findings from that report which may have particular relevance to Maori people. The paper concentrates on Chapters Five and Six of *Prospects*, which analyse possible developments in the economy as a whole, and sectoral patterns of development. It is therefore recommended that *Prospects* be read in conjunction with this paper, particularly by those people wishing to assess the methodology/assumptions used in producing the forecasts.

2. Background

In the base period from which our projections are made (the three years ended March 1987), the New Zealand economy, in terms of Gross Domestic Product measurement, was growing quite strongly but faced major problems in terms of inflation, the balance of payments, the accumulated level of overseas debt, and the level of unemployment. Although the problems of debt, the balance of payments and inflation ultimately cause problems throughout the community, it is unemployment that is causing the most direct and visible problems for the Maori community.

As noted by the Royal Commission on Social Policy, and reaffirmed by the Planning Council in *For Richer or Poorer*

Access to paid work is one of the most important determinants of the income level of individuals. Paid work, which is full-time and continuous, not only protects the earner from poverty, but also allows the accumulation of savings and credit worthiness which can be used to acquire wealth.²

Preliminary data from the Department of Statistics' Household Labour Force Survey indicates that wages or salaries, rather than earnings from being an employer or owning investments, form a greater part of total income for Maori than for non-Maori.

Although holdings of income producing wealth have the potential to increase significantly as Maori land/resource claims are resolved, in the time span of the forecasts earnings from employment are likely to remain the most important determinant of Maori income/wealth. For this reason particular emphasis is placed on analysing employment prospects in this paper.

3. Growth in Exports and Output

In the modelling exercise growth in employment depends on sustainable growth in the economy, which in turn substantially depends on steady growth in export earnings. To obtain estimates of possible export growth a wide range of industry representatives were consulted. These growth rates are shown in aggregate in Infogram 1. (A full sector breakdown can be found in Table 1, Appendix One.)

Infogram 1

FORECAST EXPORT VOLUME GROWTH % change per annum

	1987-92	1992-97
Traditional	-1.0	0.5
Non-traditional	5.7	3.8
Services	5.6	5.5
Total exports	3.5	3.3

In broad terms the forecasts indicate a continuing, slow decline in the area of traditional exports through to 1992, with more rapid growth in the non-traditional areas and services, especially tourism. Over the next five years the traditional sector stabilises, growth slows in the non-traditional sector, while services continues its rapid expansion. There are, however, very different growth rates in individual sectors, for example in the traditional export area, although export volumes of meat and wool are forecast to decline and dairy exports are forecast to grow. These differences can be taken to a more detailed level. The forecasts are presented in terms of sectoral averages and in every case these averages will embody a wide range of outcomes for different enterprises. As always, but arguably to a greater extent in the new policy environment, success or failure depends at least as much on the efficiency of an enterprise as on the general fortunes of the sector within which it works. Thus a meat and wool farm, with good management and innovative ways of processing and marketing the product, is likely to out-perform a poorly-managed tourist venture.

In a number of the resource-based sectors, particularly forestry, fishing, and mining, there was considerable uncertainty about expected growth rates and processing options. This partly reflects uncertainty about future ownership of these resources. (Maori claims form only part of this uncertainty.) In the forestry industry a number of large-scale ownership changes have recently occurred — for example, the Elders takeover of New Zealand Forest Products, the Carter Holt purchase of Caxton, and the corporatisation of the New Zealand Forest Service. The proposed privatisation of the Forestry Corporation will continue this process. In the fishing industry the system of Individual Transferable Quotas (ITQs) is still relatively new and has seen rapid changes in ownership. In the goldmining industry there is still some uncertainty about the role and attitude of the Department of Conservation which controls significant areas of land with mining potential.

Although the potential changes in ownership of resources are not analysed in detail in *Prospects*, such changes are a major part of the restructuring of the New Zealand economy, and are in fact likely to influence future levels of exports. This is particularly evident in finance, airlines, and communications for example, where capital intensity, high technology content, economies of scale, and the breakdown of international trading barriers point to a need for stronger international links which would probably include substantial foreign ownership. In the physical resources such

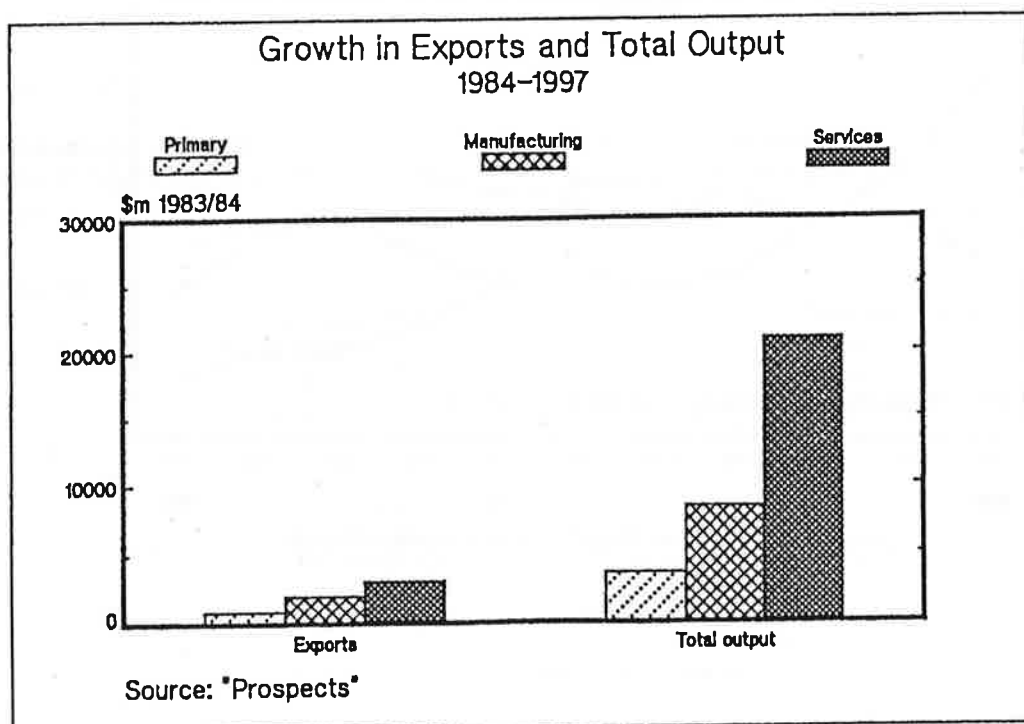
as land, forests and minerals, the debate about Maori/non-Maori, state versus private sector, and New Zealand versus foreign ownership of these resources, is more complex, and rapid change is likely to be resisted.

Also of interest from the export forecasts is that while there is relative slowing of growth in the traditional land-based sectors of meat, wool and dairy, rapid growth is predicted in non-traditional land-based activities such as horticulture, forestry, mining, and even tourism. Thus the land base remains a key element in the generation of income, but in many areas new investment and skills are required to transform its traditional uses. This is a major challenge for Maori people as much of the remaining Maori-owned land is used for traditional agriculture, with the added problem that 80% of Maori live in urban settings, often far away from their land holdings. This is discussed further in section 8.

While export growth rates are seen as driving growth in the economy, ultimately employment depends on both exports and on domestic demand. In 1984 exports represented 14.1% of total output, with this predicted to rise slightly to 15.7% in 1992, and then drop to 15.3% in 1997. Different industries, however, have quite varying direct dependence on exports as a destination for output. The sector with the highest dependency is food/beverages/tobacco which covers dairy companies and freezing works, and which in 1984 exported nearly 55% of output. This is also a sector with a large Maori workforce.

At the other end of the spectrum are industries such as private services and finance/insurance/real estate/business which directly export 1.8% and 2.5% respectively of their output. Indirectly of course they will export substantially more. A full breakdown of growth by exports and output for 1984-92 is set out in Table 2, Appendix One. A broad breakdown of growth in exports and output by sector is shown in Infogram 2.

Infogram 2

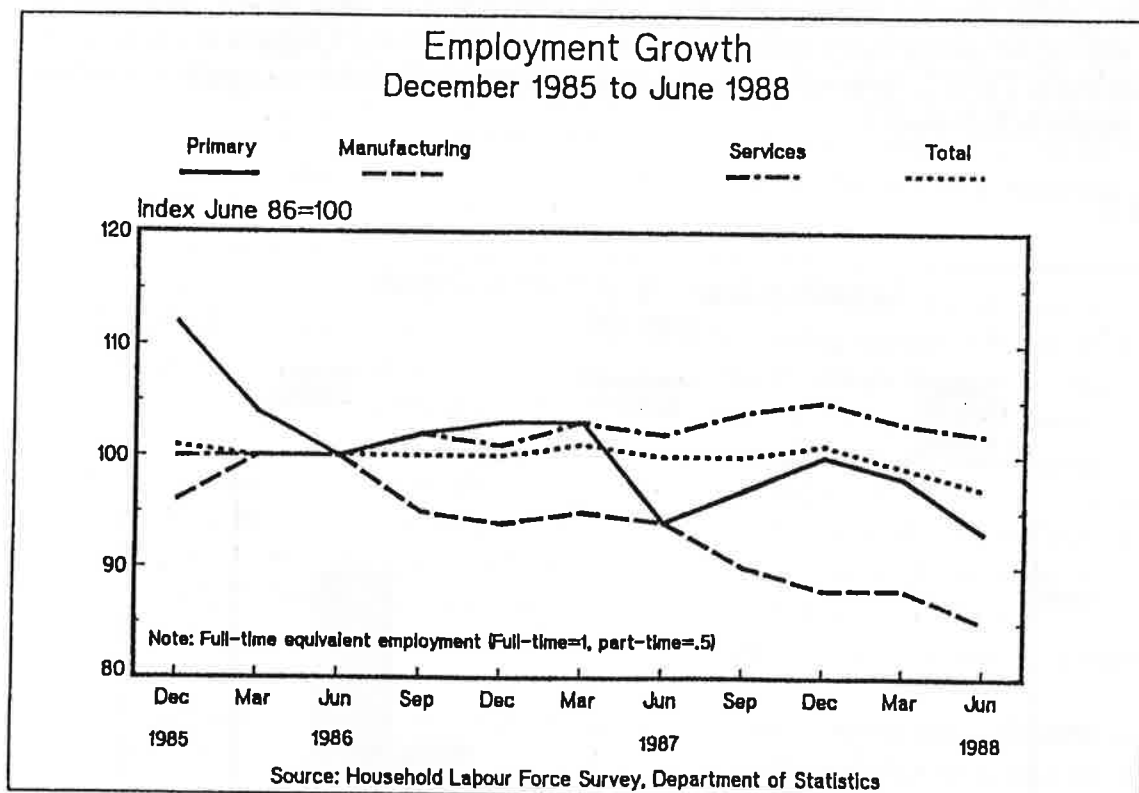


4. Productivity

Growth in employment, however, not only depends on changes in levels of exports, but is also linked closely to changes in productivity of industries, and in particular to changes in labour productivity. This issue is discussed in some detail in Chapter Four of *Prospects*. Further analysis is carried out in a paper by Bryan Philpott: "Productivity Analysis in a General Equilibrium Setting".³ It is clear from this research that increases in productivity are essential to improve the competitiveness of the New Zealand economy, and to ultimately increase the nation's total income, but it also seems that the costs and benefits in the short to medium term are not evenly spread across different ethnic groups.

In an endeavour to improve productivity there has been major restructuring across most areas of the economy. Labour shedding has been most evident in the primary and manufacturing sectors, and in some of the government-owned activities in the services sector (see Infogram 3). Despite a small net increase of 2900 job equivalents created in the services sector in the three years to December 1988, total employment declined by nearly 63,000 people in this period. While this labour shedding has affected most groups within society, Maori employment has tended to be concentrated in the areas of highest labour shedding.

Infogram 3



Labour shedding is a relatively simple way of increasing Total Factor Productivity (TFP), a measure designed to analyse changes in both capital and labour productivity. In the 1984-88 period the fastest growth in TFP was in mining, followed by forestry, construction and communications. In all these sectors, but in particular forestry — that is, logging and harvesting — Maori represented a significant proportion of the workforce as at March 1986.

Tables 3 and 4 in Appendix One set out both the productivity increases and the Maori workforce representation in the various industry sectors. Infogram 4 combines and re-analyses them to indicate that in the 1984-88 period Maori have been over-represented in industries which have had higher-than-average productivity gains.

Infogram 4

PRODUCTIVITY AND MAORI REPRESENTATION 1984-1988

**Higher-than-average productivity
Lower-than-average Maori
representation**

Agriculture	% of employment in these sectors
Other manufacturing	
	Maori 7.8
	Total 10.0

**Higher-than-average productivity
Higher-than-average Maori
representation**

Forestry	% of employment in these sectors	
Mining		
Textiles		
Paper		
Metals		Maori 37.0
Machinery		Total 29.1
Electricity, gas, water		
Construction		
Transport		
Communications		

**Lower-than-average productivity
Lower-than-average Maori
representation**

Trade, restaurants hotels	% of employment in these sectors
Finance, insurance, real estate, business	
Other services	
	Maori 32.0
	Total 46.0

**Lower-than-average productivity
Higher-than-average Maori
representation**

Other food, beverages	% of employment in these sectors	
Wood		
Chemicals		Maori 21.0
Government services		Total 14.0

Note: 1. All industries above the horizontal line have higher-than-average productivity, all those to the right of the vertical line have higher-than-average Maori representation
Note: 2. Fishing and ceramics are excluded due to unavailability of data — the employment figures therefore do not add to 100%

Source: Department of Statistics and "Prospects"

The higher-than-average productivity in the industries in the top right quadrant of Infogram 4 comes about for a variety of reasons.

In the forestry, mining, communications, and transport sectors there has been a high level of government involvement/ownership, through the New Zealand Forest Service, State Coal, the communications arm of the New Zealand Post Office, New Zealand Railways, and the Electricity Division of the Ministry of Energy. The commercial functions of these organisations were often in conflict with the social objective which was to create employment, particularly in the regions. Many of these jobs were also low skill/low technology positions, and thus provided opportunities for Maori with few skills. A need to reduce government spending, plus a recognition of the need to make the business operations more internationally competitive saw the formation of the Forestry Corporation, Coalcorp, Telecom, the Railways Corporation and Electricorp, with a corresponding shedding of labour.

In addition private sector firms also saw a need to increase productivity in these sectors, to meet both the increasing international and the new government-owned competition, again with the productivity usually coming through staff layoffs and the introduction of new technology. Increased competition or the threat of further deregulation in these sectors continues to place pressure on them to increase productivity.

In many of the manufacturing sectors the opening-up of the economy to international competition has placed pressure on industries to increase productivity. Sectors such as textiles, paper, metals and machinery responded to this pressure in the period 1984-88, but this again created difficulties for Maori as they tend to be over-represented in these industries. These industries also tended to be ones involving much unskilled labour, which is increasingly being replaced by capital intensive, high technology processes.

The food, beverages and tobacco sector includes meat processing — an area which has tended to resist restructuring and upgrading of technology. If this sector is to expand significantly, higher levels of productivity are needed, and this must have a negative medium-term impact on Maori employment. A continuing commitment to opening up the economy to international competition keeps pressure on industries to increase productivity.

On the other hand, sectors such as finance/insurance/real estate/business services, trade/restaurants/hotels and other services (community, social and personal) tend to have lower-than-average productivity growth, and a lower-than-average Maori representation. Finance in particular has also shown remarkable growth, linked closely to its key position in the process of restructuring the economy, and has been one of the few areas to provide jobs in the period since 1984.

Many of the operations within these sectors have, for a considerable time, faced competition and tend to involve a higher level of skill than many of the other service and non-service sectors. These factors have tended to reduce the opportunities for large one-off gains in productivity. The reasons for lower Maori representation in these sectors are complex, but in part reflect lower skills, including skills of operating small businesses in areas such as trade/restaurants/hotels. Maori representation in particular industries is discussed further in section 7.

5. Labour Force Projections

The total labour-force projections give some initial indication of the problems faced in reducing unemployment in the medium term. Over the forecast period — 1987 to 1997 — there is expected to be very strong growth of the total labour force, even though the rate of growth decreases in the latter period. A total of 145,000 new work positions, whether they be part-time or full-time jobs, will be required in the period 1987-92, with a further 87,000 required in the five years to 1997. This is, of course, in addition to the jobs that need to be created for those currently unemployed if unemployment rates are to be reduced. Most of the increase comes from an expanded working-age population, but also partly from an assumption that participation in the workforce increases.

To gain some idea of relative growth potential of the Maori labour force relative to the total labour force, some additional projections have been made. To simplify comparisons, increased participation in each age-specific group is initially not assumed.

Infogram 5

MAORI LABOUR FORCE PROJECTIONS

Actual numbers (000s)

	Age groups				Total
	15-24	25-44	45-64	64+	
1986	69.3	81.7	28.3	0.7	180.0
1991	71.1	103.2	33.5	1.0	208.8
1996	72.3	124.0	40.5	1.3	238.1

Growth rates Maori labour force (% per annum)

	15-24	25-44	45-64	64+	Total
1986-1991	0.5	4.8	3.4	7.4	3.0
1991-1996	0.3	3.7	3.9	5.4	2.7

Growth rates total labour force (% per annum)

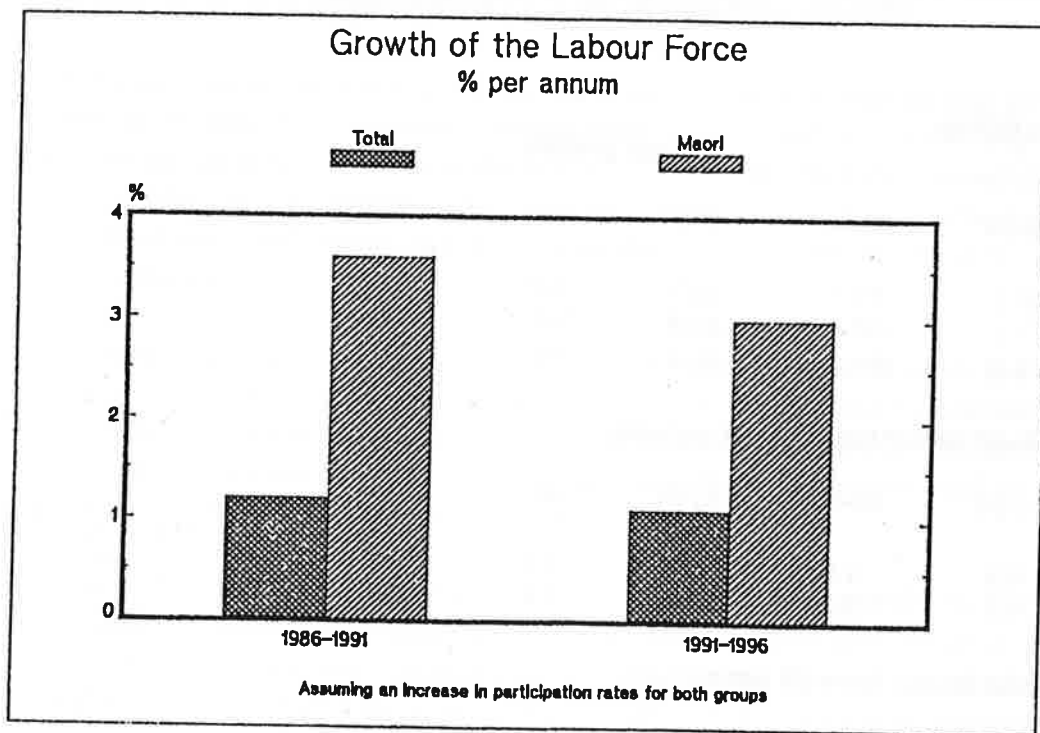
1986-1991	1.2
1991-1996	0.8

Source: Department of Statistics, and Ian Pool and Nicholas Pole
 "Maori Population to 2011:
 Demographic Change and its Implications",
 Technical Paper 1, December 1987

The infogram indicates that the Maori labour force is likely to grow at a considerably faster rate than the non-Maori labour force in the period 1986 through to 1996. In absolute numbers the fastest growth in the period to 1991 will be in the 24-44 age group, with many of these people currently entering the workforce and already facing difficulties in obtaining paid employment.

If in fact the forecasts are reworked using the Department of Statistics' assumption of increased participation in the total workforce, from 64.4% of the working-age population in 1986 to 67.3% in 1991, then both the Maori and total labour-force growth rates increase substantially. The Maori labour-force growth rate increases from 3% to 3.6% per annum in the period 1986-91, while the total workforce growth rate increases from 1.2% to 1.8% per annum. In the next five years the Maori growth rate increases from 2.7% to 3%, and the total from 0.8% to 1.1%. At these higher levels of growth an additional 68,000 jobs for Maori need to be created in the period 1986 to 1996, on top of the jobs needed currently to reduce Maori unemployment. The differences in per annum growth rates are clearly shown in Infogram 6.

Infogram 6



6. Model Forecasts — Developments in the Economy as a Whole

Detailed forecasts are presented in Chapter Five of *Prospects*. However, some points are worth exploring further. The forecasts reach forward to 1997, from a base period set at the three years ended March 1987. All variables are expressed as three-year moving averages and are intended to portray the broad trend of developments rather than give precise forecasts for particular variables or of turning points in the economy.

In the base period the New Zealand economy was in the midst of far-reaching economic reform. Financial-sector reform was associated with devaluation and then floating of the New Zealand dollar. Monetary and fiscal policy were focused on medium- rather than short-term objectives, with a primary emphasis on reducing inflation. Programmes of industry-assistance reform were accelerated and broadened.

These changes occurred in an economy characterised, during the three years ended March 1987, by:

- GDP growth at a rate of 3% per annum, which is above the long-term average (2.7% per annum 1960-85)
- an inflation rate several times that of our trading partners
- an external balance of payments deficit in excess of 6% of GDP
- accumulated overseas debt equivalent to 66% of GDP
- continuing unemployment at a rate of about 4% on a full-time equivalent basis (as measured by the Household Labour Force survey classifications, and using full-time plus half part-time as full-time equivalents).

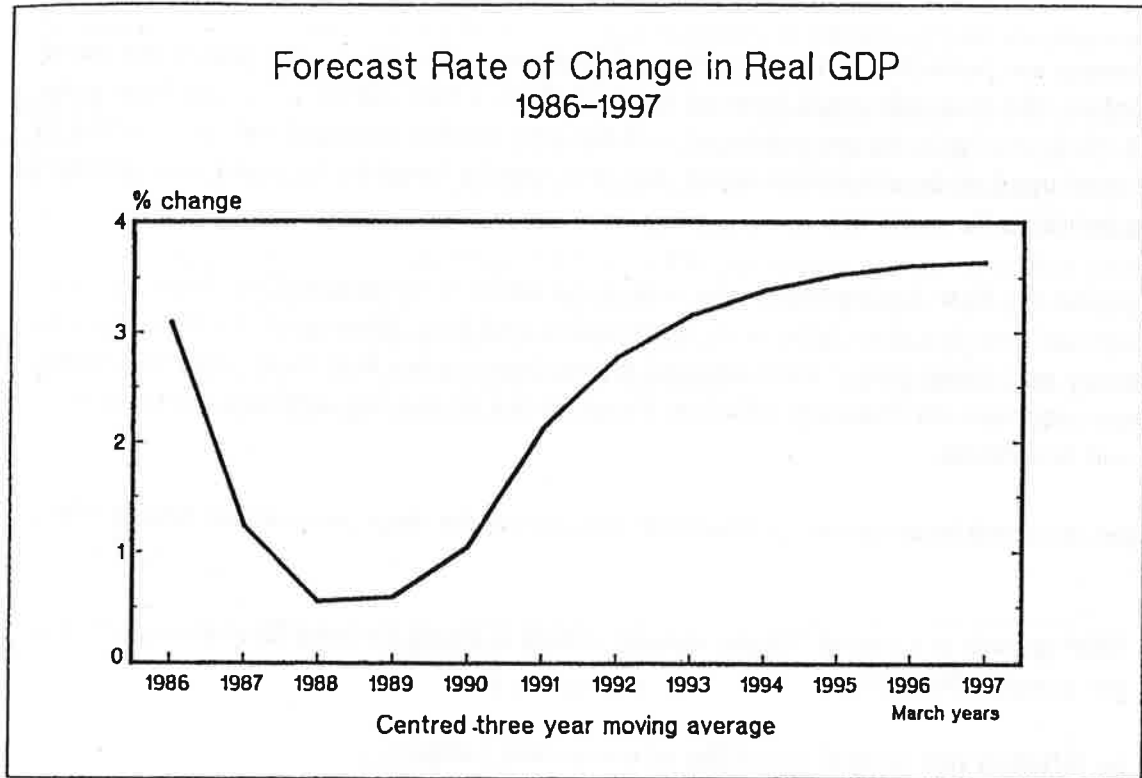
High inflation, substantial overseas debt, and the prospect that continuing balance-of-payments deficits would add to the debt burden all pointed to a slowing in economic activity. This could be expected to follow either as a result of deliberate policy choice or from market responses to clearly unsustainable imbalances.

Against these pressures stood the cost of foregoing the consumption and other benefits which might otherwise flow from higher levels of output, and the prospect that reduced activity would add to the problem of unemployment.

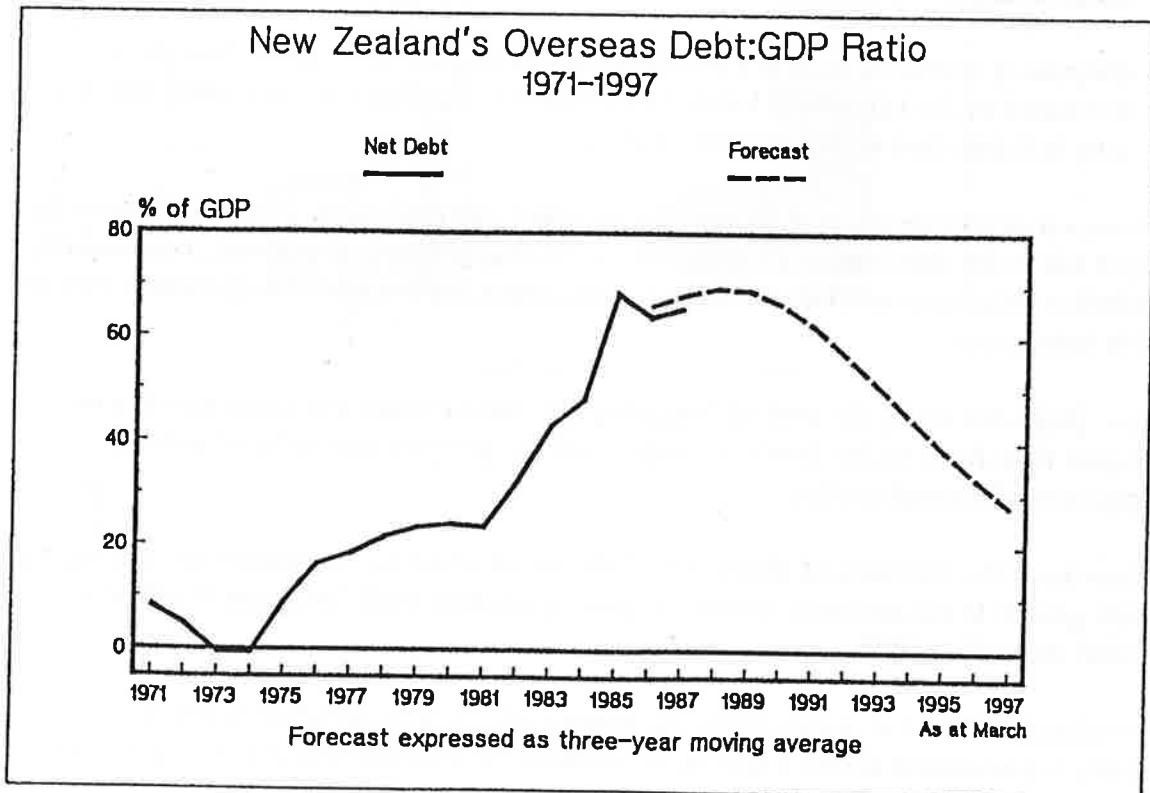
In the medium term the forecasts of almost all of the major economic indicators are reasonably positive, with growth in the economy starting to pick up towards 1990. Infogram 7 indicates real growth in GDP through to 1997.

In addition inflation reduces to world levels, the balance of payments situation improves significantly, and this improvement allows a start to be made on the repayment of overseas debt. Infogram 8 shows projected overseas debt repayment.

Infogram 7



Infogram 8



Recently published statistics tend to support the predicted directions of these changes.

On a more negative note our forecasts imply a prolonged period during which total final expenditures per head of population remain static. This will be consistent with a rise in per-capita private consumption if capital formation and government consumption rise as slowly as suggested.

The near-static level of per-capita final expenditure occurs during a period of profound economic adjustment and reallocation, and sharpens differences between the winners and losers in the system. Such differences always exist but are more easily moderated and accommodated in a period when total real expenditure is expanding. In a time of low growth, the pressures and stress of economic and social adjustment are heightened.

The major concern, however, arising from our modelling process is New Zealand's inability to bring down unemployment. While this is of concern to all New Zealanders, the impact of unemployment is being felt particularly by the Maori community. In terms of our most likely scenario, the unemployment rate (which relates to Household Labour Force Survey measures for full- and part-time workers expressed as full-time equivalents, rather than to the number of registered unemployed) rises steadily from a 1986 level of 4% of the labour force, to a peak level of 6.5% in 1992, reducing again to 4.6% by 1997. In the most pessimistic scenario, one that assumes a downturn in the world economy, unemployment is even higher throughout the forecast period with a reduction in 1997 to only 5%.

This increase in the number of unemployed needs to be viewed against a forecast that total employment will have increased quite substantially, by some 69,000 full-time equivalents, between 1986 and 1992. Rising unemployment in company with expanding employment reflects the fact that the total labour force is forecast to be rising quite strongly and, as indicated in section 5, it is likely that the Maori labour force will be growing considerably faster than the non-Maori labour force. Over the period 1986-92, the total labour force (in full-time equivalents) is forecast to increase by 140,000 full-time workers.

In addition the forecast overall increase in employment between 1986 and 1992 actually contrasts with the fall in employment as already shown in Infogram 3. Thus our forecasts imply quite rapid growth in employment in the latter part of the 1986-92 period. The issue of who will potentially fill these new jobs and, conversely, who will face the possibility of long-term unemployment is examined in the sectoral forecasts.

7. Model Forecasts — the Sectoral Pattern

Forecasts of export volumes obtained through the process of consultation are re-analysed in Chapter Six of *Prospects* to take account of price and productivity forecasts. This can raise or lower the consultation forecasts. The modelling exercise then goes on to project output and employment by sector, with an ability also to examine potential trends in sector capital investment. Much of this material presented in Chapter Six will be of interest to both Maori and non-Maori communities, but again it is the area of employment which is most likely to be of immediate interest.

The model's sensitivity to price forecasts directly affects the sectoral employment forecasts. This can be clearly seen in the meat industry, where a continuing fall in meat prices relative to manufactured goods over the forecast period, significantly pulls back the meat export forecasts given by the industry. Although the meat industry was already gloomy in predicting a 2.5% per annum decline in the volume of meat exports from 1987-92, the model increases this decline to 7.1% per annum in the same period.

The meat industry depends heavily on the food, beverages and tobacco sector (for the meat industry this is basically the freezing works), which is overall a major employer, is regionally based, and has a very high representation of Maori within it. This would indicate that the Maori community have a very strong interest in ensuring meat is marketed in the most profitable manner. However, the meat industry provides a good example of how it is both price and productivity of not only the sector itself, but also of the connected sectors which influence the level of exports and output, with productivity gains in areas such as transport and finance strongly influencing the competitiveness of the industry.

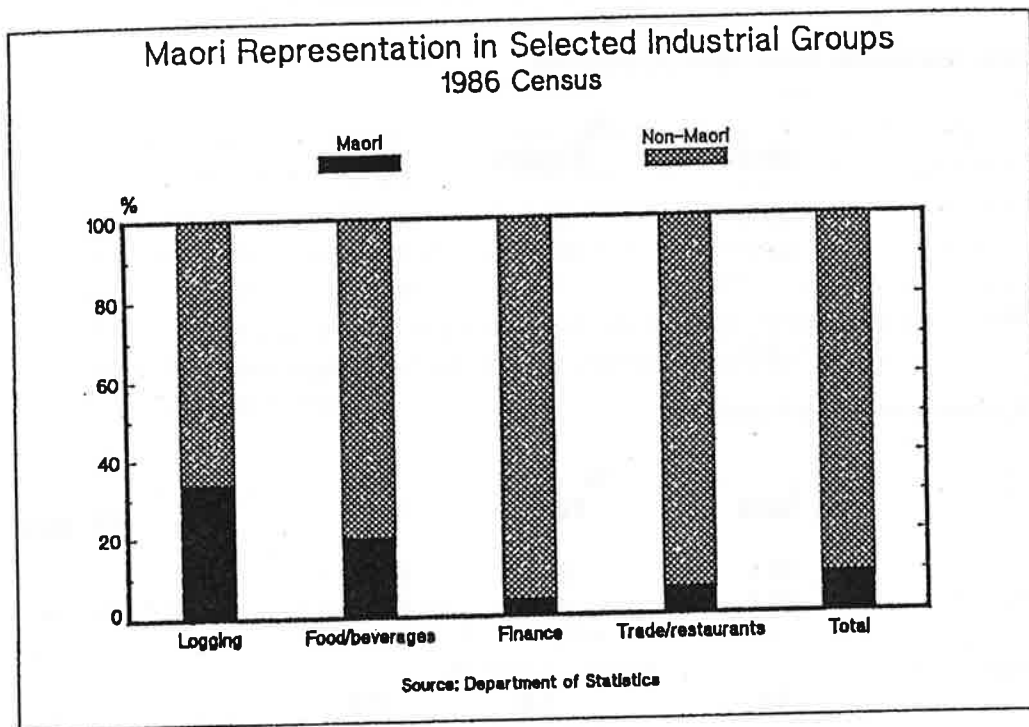
In the short to medium term, the need to increase productivity creates a dilemma for those employed in the industry, as an obvious route is through labour shedding. This is where the meat industry currently stands, with a need to drastically improve both price and productivity to ensure an adequate return to the industry, its workers and its farmer suppliers. The forecasts presented in *Prospects* assume a relatively high level of productivity, but not enough to prevent a sizeable decline in the industry. Considerably higher levels of productivity would be needed to stabilise or increase output, with the potential to significantly reduce employment prospects. Some more directly positive aspects of productivity growth for Maori are discussed later in this section.

In order to gain some initial idea of possible Maori employment patterns over the next decade, the overall employment forecasts reported in Chapter Six of *Prospects* can be reclassified into Maori/non-Maori components, using 1986 Census data to set the 1984 base, and initially *assuming no change in the patterns of Maori employment in each industry grouping*. The limitations of this approach should be noted, particularly as the model is not a refined labour-forecasting tool, but general trend analysis is useful.

In *Prospects* Maori employment by sector was presented on the basis of 'solely by Maori origin'. However, it is considered more appropriate to use the category 'Maori by origin or descent'. Table 4 in Appendix One sets out Maori representation on this basis, but still includes the previous definition for comparison purposes.

As at March 1986 Maori formed a very high proportion of the labour force of some industries — in particular logging/harvesting, food/beverages/tobacco, mining and the wood-processing industries. In general, compared with their average representation across all industries, Maori appear to be over-represented in most of the manufacturing industries, but under-represented in many of the service industries. In two of the largest employing sections of the economy — trade/restaurants/hotels and finance/insurance/real estate/business — Maori form a particularly low proportion of the workforce.

Infogram 9



At an even finer level of analysis, variations in sector-participation rates appear more extreme. Although Maori as a group are under-represented, in both the finance/insurance/real estate/business services and wholesale/retail trade/restaurants/hotels sectors, it is males in particular who are low in numbers. For both sectors in the non-Maori population, males marginally outnumber females, but the opposite occurs for Maori (see Infogram 10).

Without an even much finer breakdown of industries it is difficult to explain these differences.

Restructuring since 1986 will have altered some of these ratios, for example, forestry participation may be lower due to the formation of the Forestry Corporation, but the participation in finance/insurance/real estate/business services is likely to be higher going on historical trends. However, insufficient data is available to accurately readjust them.

Infogram 11 sets out forecasted employment for the major sectors using the 1986 ratios. A full breakdown, by industry, is set out in Table 5, Appendix One.

Infogram 10

MAORI REPRESENTATION BY GENDER

Finance, insurance, real estate and business services

	Male	% Female	Total
Maori	43.3	56.6	100.0
Non-Maori	50.7	49.3	100.0
Maori representation in sector	3.5	4.6	4.1

Wholesale, retail, restaurants and hotels

	Male	% Female	Total
Maori	45.8	54.2	100.0
Non-Maori	53.8	46.2	100.0
Maori representation in sector	5.6	7.6	6.6

Source: Department of Statistics

Infogram 11

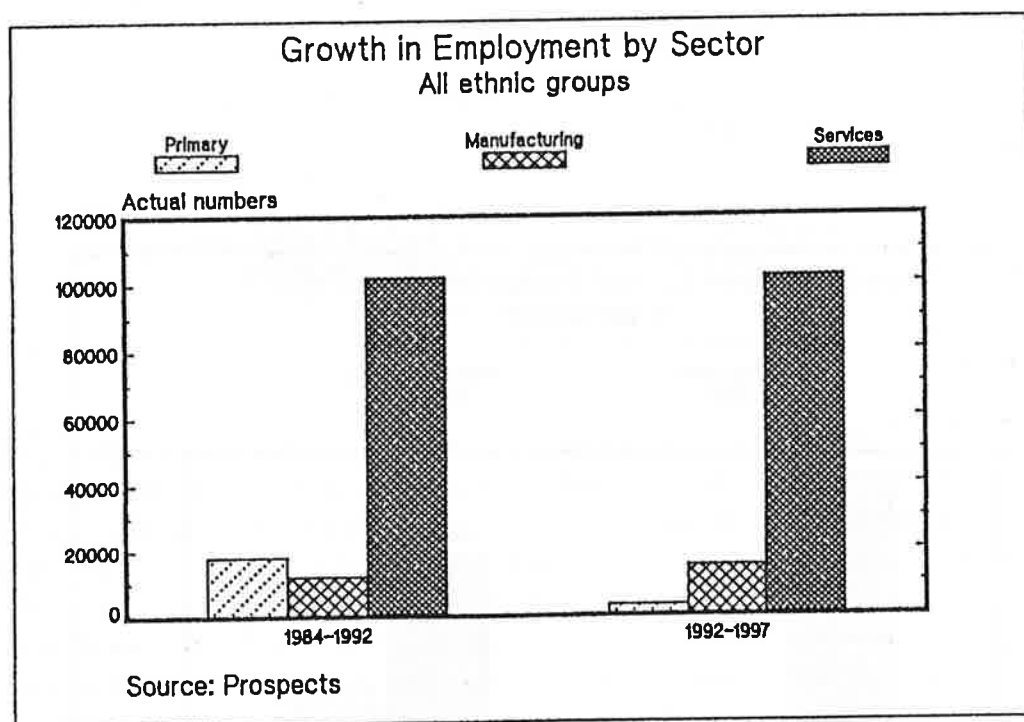
EMPLOYMENT FORECASTS (000s)

	1984		1992		1997	
	Maori	Non-Maori	Maori	Non-Maori	Maori	Non-Maori
Total primary	14.7	133.9	16.8	150.0	17.4	152.5
Total manufacturing	40.9	261.5	42.0	272.1	43.2	285.8
Total services	72.1	769.9	79.7	864.6	87.6	958.4
Total employment	127.7	1165.2	138.3	1286.7	148.2	1396.8
Growth in employment per annum %			1.0	1.3	1.4	1.7

As reported in *Prospects*, in aggregate the primary sector has the highest growth rate in the 1984-92 period, but it is the services sector which is the major supplier of new jobs in terms of absolute numbers. In some areas this reflects growing demand for personal services which are essentially labour intensive. In other areas (for example, communications and banking) it reflects an increase in sales made possible by the price reductions resulting from rapid improvements in productivity.

For the 1984-92 period it is forecast that an extra 102,000 positions will be created in service industries — around 77% of all new jobs. This is further accentuated in the latter period, when the services are forecast to provide over 85% of new positions. In 1992-97 the growth of primary-sector employment has slowed markedly, with only 3000 extra jobs forecast to be created over the five years. Growth in manufacturing is slow over the whole forecast period. The relative growth of the three major sectors of the economy between 1984 and 1997 can be seen quite clearly in Infogram 12. For a further graphical representation of the high-growth sectors of the economy relative to Maori participation and, conversely, the forecast growth of the sectors with high Maori representation see Appendix Two.

Infogram 12

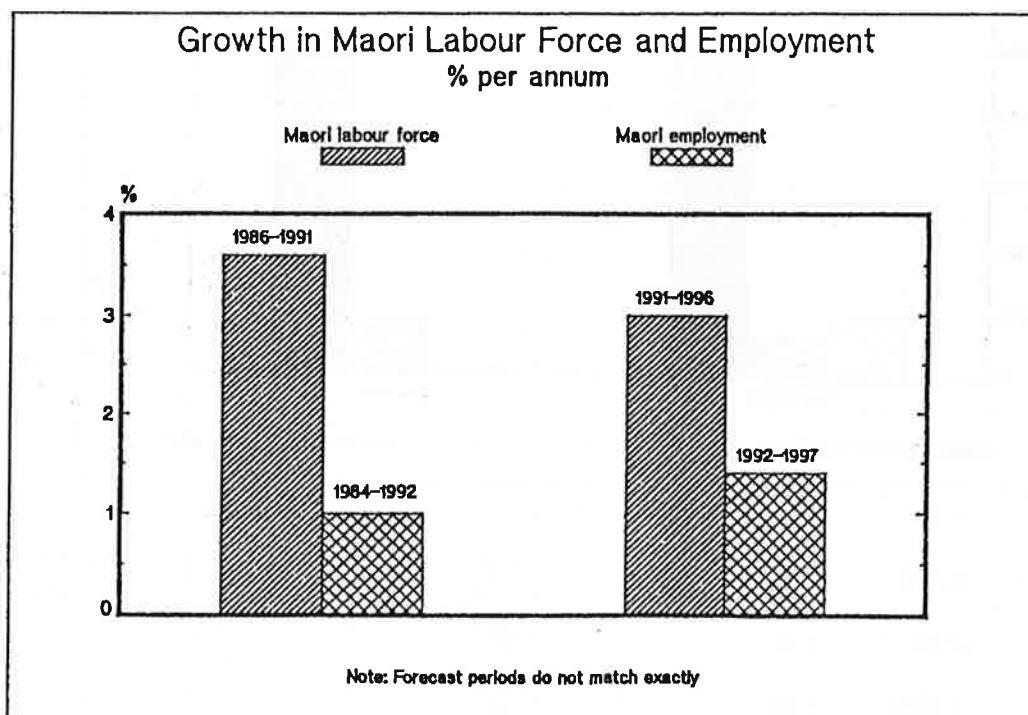


As at March 1986 Maori represented 8.5% of the total services workforce — only 6.6% of trade/restaurants and 4.1% of finance, two of the larger services sector employers — as against 9.7% of the total workforce. This under-representation within the services sector, implies that with current skill and employment patterns, Maori employment will grow at a slower rate than non-Maori employment. Infogram 11 indicates that in 1984-92 Maori employment could grow at 1.0% per annum, while non-Maori employment could grow at a faster rate of 1.3%. The growth differential is more marked in the period 1992-97 with Maori employment forecast to grow at 1.4% per annum, against the non-Maori rate of 1.7% per annum. The lower growth in employment is compounded by the projection that the Maori labour force will be growing at a considerably faster rate than the non-Maori workforce. The potential problem is clearly illustrated in Infogram 13. (The figures for this infogram are shown in Table 6, Appendix One.)

The outcome, if the relationships in this simple model were to hold, would be a significantly increasing absolute and relative level of Maori unemployment.

A number of factors can and will, of course, alter these predictions. One factor is that differing rates of productivity may actually eventuate. In additional modelling work, Bryan Philpott has tested a variety of productivity scenarios. Only two are outlined in this paper, with both assuming that employment in the model is fixed but can be reallocated between sectors. Infogram 14 shows differences in 1992 in the sector groups.

Infogram 13



Infogram 14

POTENTIAL EFFECTS OF PRODUCTIVITY CHANGES OF MAORI EMPLOYMENT 1984-1992

	"Prospects"	Improvement in total factor productivity across all sectors	Improvement in labour productivity in other services, finance and trade
Increase in Maori employment			
(000s)			
Primary	2.1	1.2	2.5
Manufacturing	1.0	-0.9	2.3
Services	7.6	9.1	7.2
Total	10.7	9.3	11.9
Growth (% per annum)			
Maori	1.0	0.9	1.1
Non-Maori	1.3	1.3	1.2

Note: Details of the modelling changes can be found in the publication
"Productivity Analysis in a General Equilibrium Setting",
Project on Economic Planning, Occasional Paper 95,
Victoria University 1988

The infogram indicates that in the short term Maori may have little to gain directly in employment terms from across-the-board productivity changes, but that labour productivity improvements in key industries such as trade and finance can boost employment. The improvements in these industries greatly assist in making industries such as forestry and food/beverages more competitive and thus able to expand output and employment. In the longer term, productivity across the whole of industry is likely to help boost the economy, and eventually create more jobs. However, if there are particular groups, such as Maori, who seem to bear the costs of such changes in the medium term, these groups are less likely to favour the changes.

Within this relatively simple model perhaps a more useful alternative is that through a combination of training, re-training, and perhaps changes in attitudes of predominantly non-Maori employers, Maori will further increase their representation in the industries with strong employment growth. Infogram 15 examines potential changes in total employment if participation in three key growth sectors is increased.

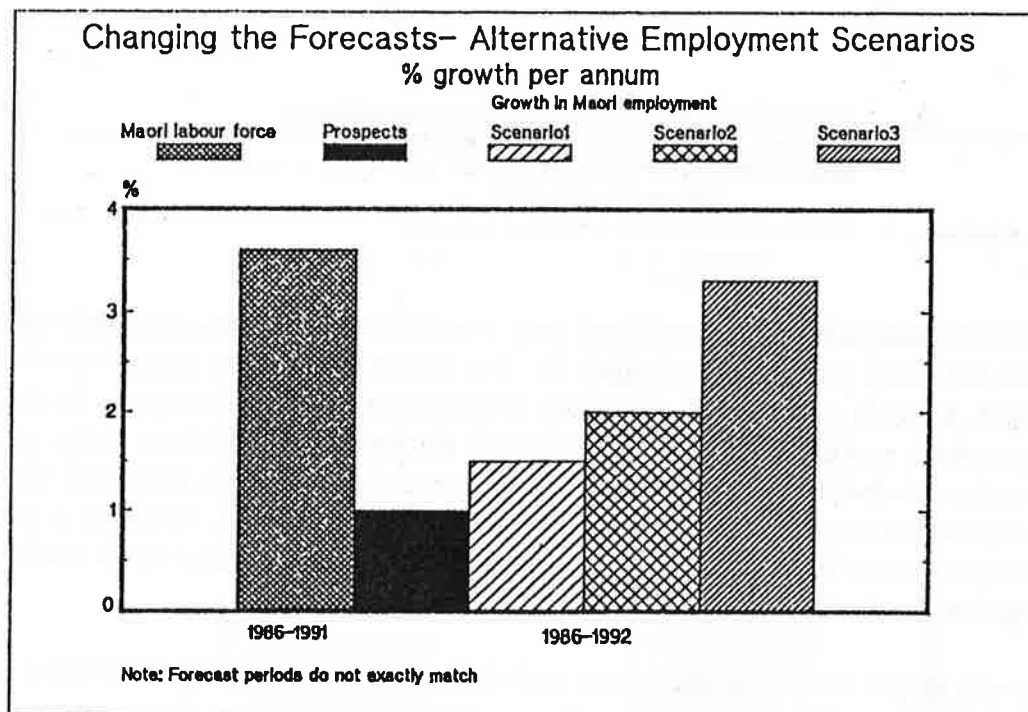
Scenario 1 assumes that Maori participation/representation in each of the key sectors of trade/restaurants/hotels, finance/insurance/real estate/business services and community/social/personal

services has a one-off increase of 10%. This means the trade-sector Maori participation increases from 6.6% of the workforce in 1984 to 7.3% in 1992, finance increases from 4.1% to 4.5%, and the community sector from 9.1% to 10%. In addition it is assumed that participation rates in the other sectors are not altered downwards to compensate, therefore the gain in employment is absolute and is not a relative shift. For Scenario 2 the increase in each sector is 20%, and Scenario 3 assumes a 50% increase.

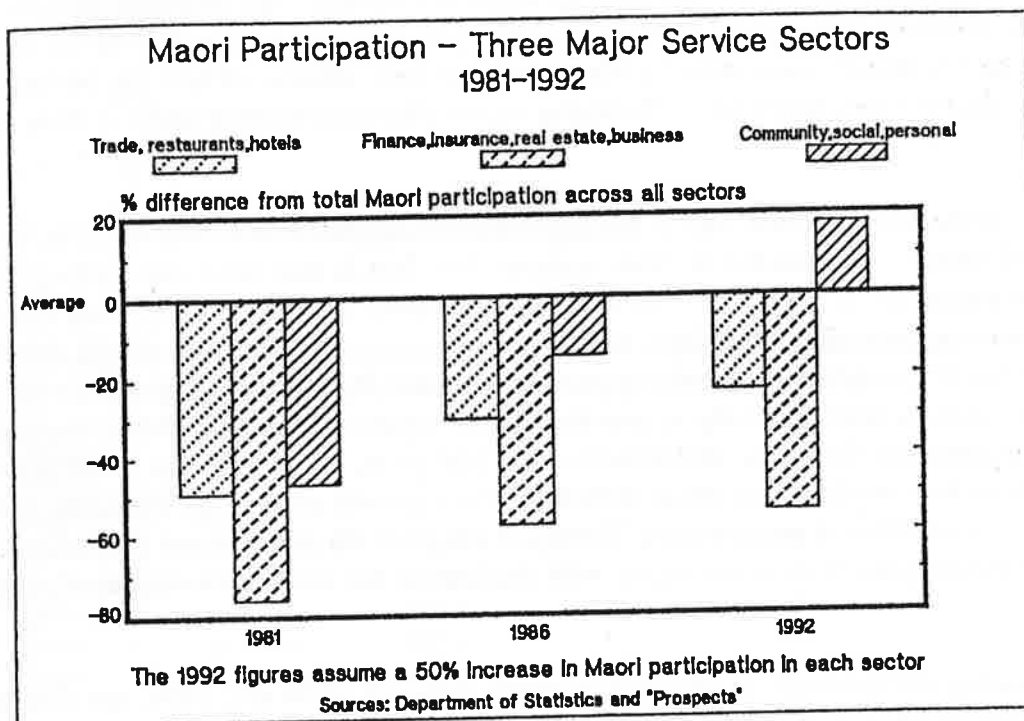
The 'realism' of the various changes set out in Infogram 15 can be partly tested by examining past changes in industry participation rates. Infogram 16 shows Maori participation rates in the same three growth sectors measured in terms of the percentage *difference* from average participation across all industries. A negative difference implies under-representation, a positive one higher-than-average representation.

Infogram 16 indicates that there has been a large increase in Maori participation rates in these three sectors of the economy between 1981 and 1986. It also shows Scenario 3 in 1992 as indicating, at least visually, that changes of such magnitude as outlined in the scenario may be possible in some of the sectors.

Infogram 15



Infogram 16



If Maori people are to be better able to assess if such large changes can be made, some idea of the types of businesses operating in these sectors is useful, along with the types of occupational skills needed. Tables 7 and 8 in Appendix One give a breakdown by business and occupation respectively. Infogram 17 indicates the proportion in each sector, and the economy as a whole, of the occupational group that is probably the slowest for Maori to move into — professional, technical and related workers.

Infogram 17

**PROFESSIONAL, TECHNICAL AND RELATED WORKERS
AS A PROPORTION OF EMPLOYMENT
all ethnic groups, full-time, 1986 Census
%**

Wholesale/retail trade/restaurants/ hotels	Finance/insurance/ real estate/ business	Community/social/ personal services	Total
4.1	24.8	42.3	14.9

Source: Department of Statistics

The major professional groups in the finance area are architects, engineers, accountants and lawyers, while the major groups in the community areas are doctors, veterinarians, dentists and teachers. While lower-skilled clerical workers, for example, represent nearly 50% of the finance area, and may be a relatively easy area for Maori to move into, movement into the professional areas should be the preferred target due to the higher income/decision-making status of these occupations.

Movement into professions, particularly in the finance/insurance/real estate/business area, should be the preferred target for a number of other reasons. The first is that these occupations in the overall finance sector act as a support role for other businesses in the economy. Any business setting itself up, or in day-to-day operations, needs bank managers, lawyers, accountants, and from time to time engineers, architects, advertising professionals etc. If Maori fill a significant proportion of these professions they are likely to provide a better support network for Maori businesses than the current situation. Secondly, and linked to the first point, the professions in the services sector are likely to have skills which are in demand in most growth areas of the economy, giving both flexibility and stability to employment. Thirdly, it has been the professional type of occupations that have shown growth in recent years, with declines in the more manual type of occupations.

The fastest growing occupations, in percentage terms, between 1976 and 1986, are shown in Infogram 18. These tend, however, not to be occupations with high Maori representation.

Infogram 18

FASTEST GROWING OCCUPATIONS 1976-1986 all ethnic groups

Occupation	% increase
Statisticians, systems analysts	125
Professional, technical (not elsewhere classified)	108
Economists	106
Government administrators	104
Broadcasting	91
Managers	78
Clerical supervisors	76
Working proprietors	67
Jurists (lawyers)	55
All occupations	10

Note: Full-time and part-time workers have been combined

Source: 1976 and 1986 Census

As a contrast Infogram 19 shows the growth of occupations with the highest Maori representation.

Infogram 19

MAORI WORKERS 1986 most common occupations

Occupation	Number of Maori employed ¹	% change in occupation 1976-1986 ² (all ethnic groups)
Labourers ³	9795	-13
Food processors	8415	0
Material and freight handlers	7917	-5
Transport operators	7251	-9
Agricultural workers	6657	+12
Brickies and carpenters	4014	-15
Fitters	3828	-2
All occupations		+10

1. Full-time workers

2. Full-time and part-time workers combined

3. Not elsewhere classified

Source: 1976 and 1986 Census

When the industry and occupation analysis for Maori is combined it shows that Maori workers tend to be more clustered in manual jobs in the primary and manufacturing industries than in non-manual jobs in the services sector. The opposite situation exists for non-Maori and the strongest growth is predicted in the non-manual service areas. This is explored in more detail with other issues of Maori income, unemployment, and education in a forthcoming Planning Council publication — an overview of employment.⁵

Finally, some idea of the geographic location of future jobs is useful in assessing Maori employment opportunities. Although the forecasts in *Prospects* are not on a regional or an urban/rural basis it is likely that new jobs in agriculture, horticulture, forestry (including processing), mining, and much of the food-processing industry will be located outside major urban centres. A significant proportion of the additional manufacturing jobs, and most of the employment in the services sector is likely to be based in major urban areas, although much of the tourist-related employment could be in smaller urban centres such as Rotorua and Queenstown. The *Prospects* forecast that nearly 80% of new jobs in the period 1984-92 will be in the services sector would therefore indicate that most new jobs will be in urban areas. This is of particular importance to the Maori population, with 80% living in urban areas. In addition nearly 90% of the Maori labour force resides in the North Island, with over a quarter in the Auckland region, indicating that, on the assumption that most people do not wish to move, it is preferable that most new jobs are created in these areas.

8. Case Studies

The simplicity of this type of model analysis, however, becomes more evident when individual sectors are examined in more detail. We have chosen two growth sectors for further analysis — forestry and tourism. Although tourism is not actually a sector in itself, it has become a major individual export item, drawing on a range of other sectors — particularly transport, and the trade/restaurants/hotels sectors. It is also a mixed urban/rural based industry — for example, in 1988 over 45% of overseas travellers' nights were spent in the four major centres of Auckland, Wellington, Christchurch and Dunedin. This rises to nearly 55% if Rotorua and Queenstown are included.

In our forecasts tourism is the fastest growing export area of the economy. Overall it is very labour intensive, but currently has a relatively low Maori involvement. Forestry covers logging through to manufacturing, both in the pulp and paper areas, and wood products, is increasingly capital intensive, but currently has a high Maori involvement. It is substantially a non-urban based industry, although it would draw much of its labour from smaller urban centres. It is difficult to quantify the number of jobs tourism currently provides for Maori, but as at March 1988 it is estimated that tourism directly provided just under 4% of employment for all ethnic groups.⁴ As a comparison, at March 1986, forestry provided just over 5% of all jobs, and around 8% of Maori employment. Therefore, while forestry and tourism are focused on it should be noted that directly they currently represent only perhaps 10% of Maori employment, and while both have growth potential their direct contribution to Maori employment should not be over-emphasised.

Forestry

Forestry has been frequently singled out as a potential major supplier of new jobs, with some estimates of up to 30,000 permanent positions being created by 2015.* These sorts of forecasts are based on the increasing volumes of wood becoming available for harvesting, with the amount nearly doubling before 2000, and expected to increase even more significantly before 2015. The forecasts in *Prospects* are on a shorter time frame but, while pointing to large increases in output and exports, appear to be a little more conservative in forecasting job increases. Table 9 in Appendix One sets out total employment forecasts in the forestry sector.

The *Prospects* forecasts indicate that just over 5000 jobs could be created in the period 1984 to 1992, with a further 5500 created in the five years to 1997, a total of just over 10,000 new jobs. The high productivity forecast for the sector is tending to make the industry more capital intensive, with the extra jobs representing only a 15% increase in employment despite a 56% increase in output. If productivity gains continue at the same sort of rate through to 2015, the forecast 30,000 extra jobs may therefore be a little optimistic, but it is still clear that the forestry sector in the longer term has the potential to create a significant number of jobs. It should be noted, however, that even by 1997 forestry is likely to only provide just under 5% of all jobs, whereas retail/wholesale trade/restaurants/hotels will provide around 20%.

*"The Compact - A Ripple of Hope" Speech to the Canterbury Chamber of Commerce, Christchurch, November 1988, Mike Moore.

Infogram 20 shows Maori employment ratios as at March 1986 applied to the total forestry employment forecasts.

Infogram 20

MAORI EMPLOYMENT IN THE FORESTRY SECTOR (000s)

	1984	1992	1997
Logging/harvesting	3.5	4.0	4.4
Wood	3.6	3.7	4.0
Paper	3.6	4.0	4.2
Total forestry	10.7	11.7	12.6

The figures indicate that *using March 1986 ratios* only about 1000 extra Maori would be employed in the forestry sector by 1992, with a further 900 jobs provided by 1997. Although changes in skill patterns and access to jobs could alter this ratio up or down, regional changes could also have an important impact on the industry. Infogram 21 shows estimated yearly harvest figures through to 2000 for exotic timber. This gives some guide to where the future employment could be, but it should be noted that raw materials will flow between regions, for example, Thames Valley timber could be processed in the Bay of Plenty.

Infogram 21 indicates that despite continued growth, the dominance of the Bay of Plenty/Taupo area declines over the forecast period, from providing around 70% of output in 1985-86 down to 50% near 2000. An increasing proportion of production comes from the South Island, in particular the Nelson area which provided just over 5% of the harvest in 1985-86 but which is forecast to provide nearly 10% by the turn of the century. These regional differences, and especially the growth in the South Island, make Maori forestry employment more difficult to predict.

Infogram 21

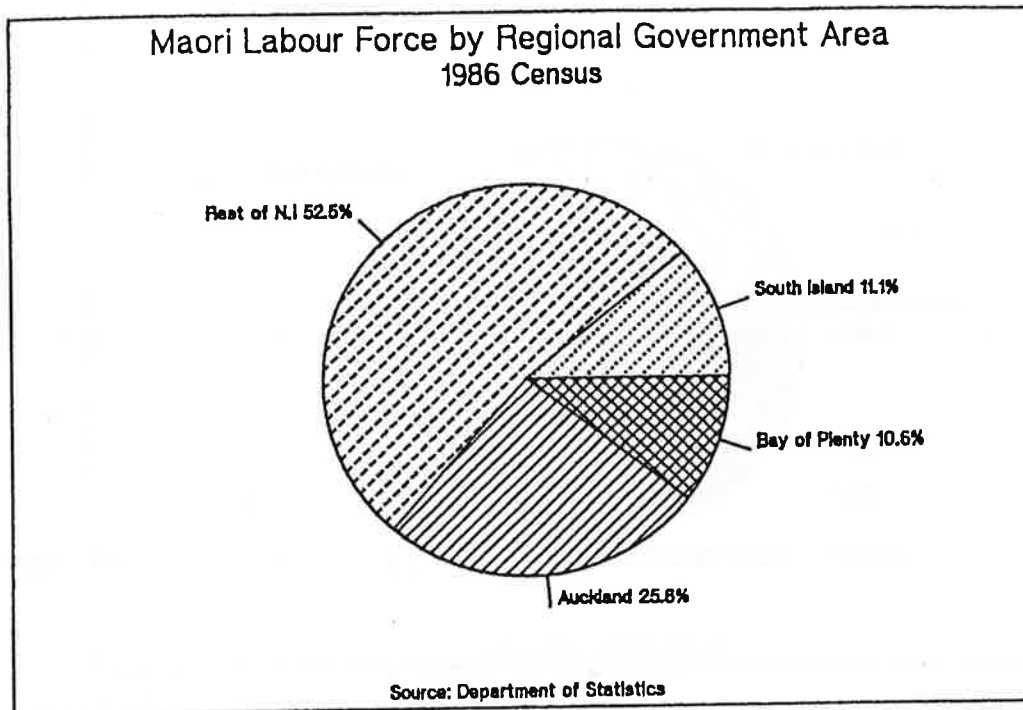
ESTIMATED AND PREDICTED HARVEST OF EXOTIC FORESTS (000 cubic metre per annum)

Planning region	Estimated harvest		Predicted harvest			
	1985/1986	%	1991/1995	%	1996/2000	%
Northland	225		435		555	
Auckland	310		345		415	
Thames Valley	245		240		430	
Te Kuiti	20		85		165	
Bay of Plenty	6,320		6,550		7,160	
Taupo-East Cape	Insignificant		110		335	
Hawke's Bay	195		420		745	
Taranaki	35		55		80	
Waimarino	205		200		120	
Wanganui-Manawatu	40		180		210	
Wairarapa-Wellington	110		470		560	
North Island	7,705	83.9	9,090	79.8	10,775	75.9
Nelson	490		815		1,350	
Marlborough	45		135		320	
West Coast	15		100		180	
Canterbury	295		355		385	
Aorangi	140		155		140	
Coastal Otago	265		475		675	
Central Otago	40		50		45	
Southland	190		210		330	
South Island	1,480	16.1	2,295		3,425	24.1
Total N.Z.	9,185	100.0	11,385	100.0	14,200	100.0

Source: Ministry of Forestry

Infogram 22 shows the location of the Maori labour force as at March 1986, with Auckland and Bay of Plenty isolated. Auckland is shown separately, as over one-quarter of the Maori labour force are located in this area, and Bay of Plenty as it is New Zealand's major forestry centre. As a comparison the predicted harvest in 1996-2000 is shown by the same breakdown.

Infogram 22



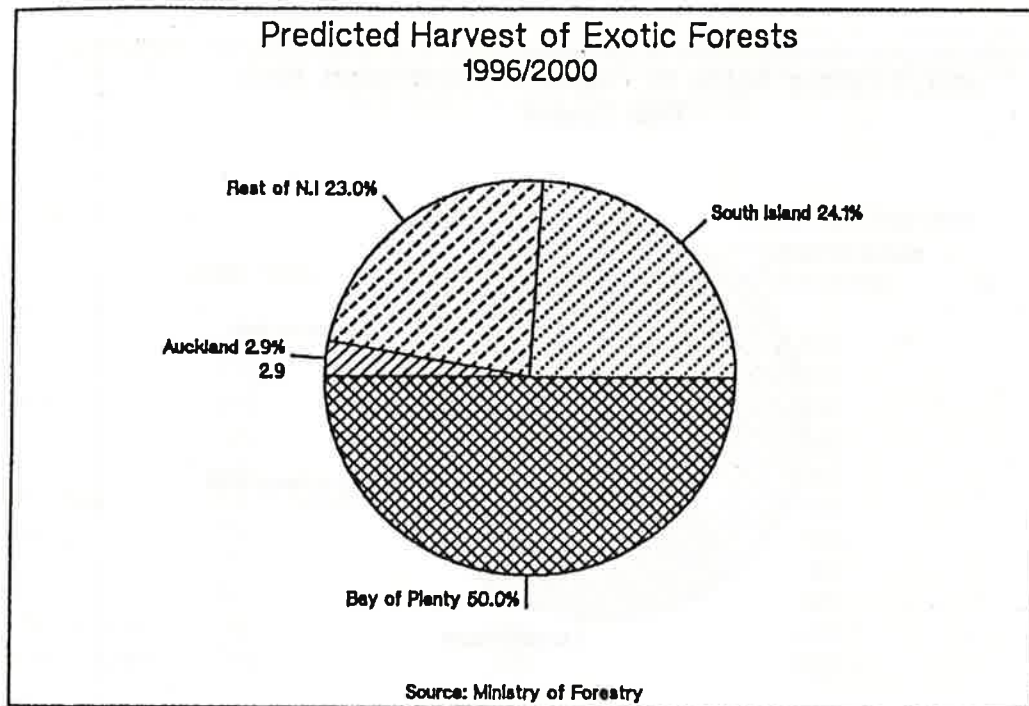
Infogram 22 indicates that the majority of the Maori labour force is located in the North Island, with over one-third in the combined Auckland/Bay of Plenty regions. The concentration of the Maori labour force in the North Island is significantly greater than for non-Maori, with nearly 90% of Maori in the North as against just over 70% for non-Maori. Infogram 23, however, indicates that nearly one-quarter of the forestry jobs could be in the South Island by the late 1990s.

In areas with a large Maori labour force, such as Northland, growth in forestry output is almost certain to be of direct benefit to Maori people. In this region already Elders and Shell have announced a plan to build a pulp mill employing 300 people if the Crown's Northland forestry assets are sold to them. In many other areas, particularly South Island districts such as Nelson, Marlborough and Coastal Otago, Maori form a significantly smaller proportion of the total local workforce so are less likely in the future to have the same participation rates in forestry as the 1986 Census would suggest. Potentially this indicates that forestry overall may not be the growth area for Maori employment as commonly thought, unless Maori participation can be substantially raised.

However, if Maori wish to retain the high participation rate in the forestry sector, a number of strategies may be necessary.

First, training in forestry skills will be needed in the areas of potential growth. This includes upgrading of skills in existing areas of production as newer high productivity techniques are introduced, and new training in developing areas. This training could usefully include contracting

Infogram 23



skills, as much of the harvesting/logging sector consists of small businesses. Much of this new training will need to be in non-manual skills as production processes and organisational structures change.

Secondly, those who are unemployed but have forestry skills will need to move to new growth areas. This is one area of labour-market flexibility which may be as important as the more commonly discussed issues of wage rates, voluntary unionism etc. Maori have already shown their ability to undertake mass migration, such as the dramatic rural to urban shift in the 1950s.

The third strategy could be to increase the number of businesses owned and operated by Maori. In the logging/harvesting area there appears to be a lot of scope for small business operations, although in the wood-processing industries there are various factors such as economies of scale which appear to favour ownership and operation by large international companies. This scope has increased with the corporatisation of the New Zealand Forest Service, with some of its former wage and salary employees already working as contractors. These include both Maori and non-Maori, and are likely to significantly increase the self-employment ratios as at March 1986. This move to contracting is also occurring in the major private forestry companies. As at March 1986, however, Maori were under-represented in the self-employed category of all the forestry sectors, and it is possible that despite an overall increase since 1988 in the proportion of self-employed Maori could still be under-represented. (See Infogram 24.) To develop small businesses requires capital and new expertise, but groups such as the Maori Development Corporation are assisting in these areas.

Infogram 24

EMPLOYMENT/SELF-EMPLOYMENT IN ALL FORESTRY SECTORS 1986 Census

	Maori			Non-Maori		
	Self-employed	Total (000s)	Self-employed as a % of total	Self-employed	Total (000s)	Self-employed as a % of total
Logging/ harvesting	327	3759	8.7	1274	7409	17.2
Wood	147	4176	3.5	3698	21861	16.9
Paper	81	3515	2.3	2048	29826	6.9
Total forestry	555	11450	2.3	7020	59096	11.9

Source: Department of Statistics

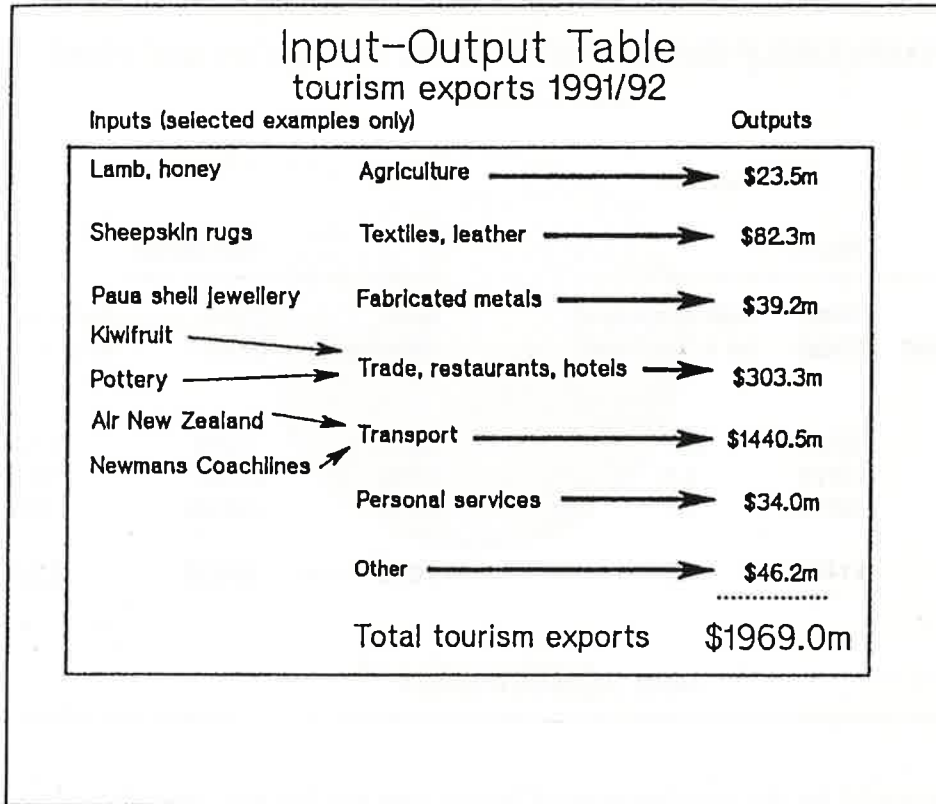
The fourth strategy could be the development of Maori land for forestry operations. Already a number of Maori forest development schemes are operating successfully — some of these, such as Tarawera Forest Ltd. near Rotorua, are already at the harvesting stage. Potentially more land will become available for such development, with the possibility of high Maori participation.

Underlying all these options, however, is that in order to compete successfully with overseas operations, our productivity levels need to be as high, if not higher, which will require access to new technology and capital. The paradox is that in the short term, labour expansion appears to be restrained by the productivity increases.

Tourism

According to the forecasts in *Prospects*, tourism will provide 46% of new export income in the period 1987-92, and 31% in the period 1992-97. Over the whole forecast timespan tourism increases from providing around 10% of total export income to over 16%. Although tourism is categorised as an export sector in *Prospects*, it is really the combination of a number of other sectors (see Infogram 25).

Infogram 25



The infogram shows that the major contributors to tourism earnings are ticket sales to overseas tourists by Air New Zealand or domestic transport operations such as Newmans Coachlines, and the hotel and restaurant bills which tourists pay while they are in New Zealand. But tourists will also buy substantial quantities of agricultural goods such as carry-packs of lamb chops and jars of specialty honey — as well as sheepskin rugs from the textile sector, jewellery from fabricated metals, and haircuts from personal services. The hotels and restaurants which serve tourists will buy kiwifruit for their desserts and pottery to serve them on. Across all sectors of the economy it has been estimated that tourism — both domestic and international — directly and indirectly provided over 80,000 jobs. By 1992/93 this has been estimated to increase to somewhere between 105,000 and 110,000 jobs.⁶ A large proportion of these jobs will be in the trade/restaurants/hotels sector.

The trade/restaurants/hotels sector covers both wholesale and retail trade — including eating houses from snackbars to licensed restaurants, and accommodation from camping grounds through to luxury international hotels. Overall in operation it is a very labour intensive sector, yet in its development stages large amounts of capital can be involved, especially to build large hotel complexes.

The employment forecasts in *Prospects* show that in the period 1984-92 the transport and trade/restaurants/hotels sectors are expected to provide an extra 60,000 jobs — just under half the total jobs created in the economy during this period. In the five years from 1992 to 1997, these sectors

are expected to provide a further 48,000 jobs — 40% of all new positions. A significant part of this increase can be directly related to the forecast growth in tourism. As with the forestry industry, forecasts of Maori employment in these key sectors can be made using the employment ratios of 1986 (see Infogram 26).

Infogram 26

MAORI EMPLOYMENT IN TOURISM RELATED SECTORS (000s)

	1984	1992	1997
Trade, restaurants, hotels	14.5	17.7	20.2
Transport	7.8	9.1	10.3

Both these sectors potentially provide useful increases in jobs, but the full potential will only be realised if Maori representation in the trade sector can be significantly increased. As previously indicated a 20% increase in participation in this sector could mean an additional 3600 jobs by 1992, while a 50% lift would see an additional 9000 Maori positions.

The type of job created in the tourism sector reflects both the service nature of the sector, and the generally changing pattern of work within the whole economy. Overall, women are increasingly participating in the paid workforce, more people are facing the prospect of shift work or work outside the usual Monday to Friday pattern, and there is an increasing demand for part-time work. This is particularly well illustrated by the eating/accommodation industries, which are likely to grow as a result of an increase in international tourism and more leisure time.

Infogram 27

WORK PATTERNS IN EATING PLACES AND ACCOMMODATION INDUSTRIES 1986 Census, all ethnic groups

	Male		Female	
	Full-time	Part-time	Full-time	Part-time
Actual numbers	17,232	2,904	22,275	17,397
%	28.8	4.9	37.2	29.1

Source: Department of Statistics

Not shown in the infogram is the seasonal nature of tourism — a potentially negative feature of many of New Zealand's resource-based industries — but it does, however, indicate the potential flexibility of work patterns within the tourist industry.

The tourist industry is similar to forestry in that changes in different regions' growth can alter the forecast patterns — for example, development in Rotorua is more likely to create Maori employment than development in Queenstown. It is also similar to forestry in that the majority of jobs directly provided by tourism are currently located in the North Island, with a high proportion in the Auckland region. As at March 1988, it is estimated that 32% of total jobs directly created by international tourism and 13% by domestic tourism were located in the Auckland region. Sixty six percent of international tourism-related jobs and 69% of domestic tourism jobs are found in the North Island.⁷ This concentration is likely to increase over the next couple of years, with the 1990 Commonwealth Games, and possibly the America's Cup yachting series, being based in Auckland.

Since the forecasts in *Prospects* were finalised, the New Zealand Tourist and Publicity Department have published a study "The Implications of Tourism Growth in New Zealand".⁸ The study provides three main scenarios for growth in New Zealand, each with a potentially different impact on Maori employment. In this analysis the 'base' forecast is focused on, but the 'concentration' and 'dispersal' scenarios are also drawn upon. The analysis in the paper also only focuses on international tourism. Infogram 28 shows forecasts of both visits and nights stayed by international travellers in different locations throughout New Zealand. It should be noted that some locations, particularly Auckland as an arrival and departure zone, may be visited more than once.

Infogram 28

MOVEMENTS OF INTERNATIONAL TOURISTS (base scenario — selected locations)

Location	Visits			Nights stayed		
	(000s)		Growth	(000s)		Growth
	1988	1993	% p.a.	1988	1993	% p.a.
Bay of Islands	125	179	7.4	366	504	6.6
Auckland	897	1347	8.5	4958	7179	7.7
Whitianga	11	16	7.8	25	34	6.3
Rotorua	353	531	8.5	770	1075	6.9
Taupo-Wairaki	127	193	8.7	296	422	7.4
Gisborne	20	31	9.2	85	118	6.8
Christchurch	484	728	8.5	1600	2202	6.6
Hokitika	19	28	8.1	57	86	8.6
Dunedin	140	204	7.5	573	772	6.1
Queenstown	282	426	8.6	730	1020	6.9
Wanaka	56	84	8.4	129	176	6.4
Te Anau	155	228	8.0	251	339	6.2
New Zealand	855	1265	8.1	18345	26158	7.4

Source: New Zealand Tourist and Publicity Department

The base scenario works on the assumption that existing demand patterns within each group of tourists do not change. For example, each Japanese or American visitor in 1993 will exhibit the same demand for transport, accommodation, places visited etc, as shown in 1987 by the International Visitors Survey. However, the mix of tourists is expected to change following expansion of the Japanese and West German leisure markets, slowing of tourism growth from the United States, and very slow growth in the number of tourists from Australia.

This scenario provides for similar growth in high Maori population areas such as Rotorua and Gisborne, and low Maori population areas such as Queenstown and Hokitika. The concentration scenario, as the term implies, portrays a future where international visitor demand becomes increasingly concentrated on the traditional major tourist areas, and on the formal components of tourism superstructure, especially hotels, motels, coach travel and organised entertainment and activities. Under this scenario areas such as Rotorua and Queenstown grow significantly faster than areas such as Gisborne. The third scenario is a dispersal one, in which both a changing arrival mix and different visitor tastes see more emphasis on visits away from main tourist destinations, and more use of independent travel and informal accommodation facilities. The changes in visitor numbers, and mode of travel can be illustrated by looking at a minor destination Gisborne.

Infogram 29

INTERNATIONAL TOURISTS IN GISBORNE

Groups of travellers using:	1988	Base	1993 Concentration	Dispersal
Rental cars	2600	3900	3600	4500
Campervans	870	1260	1140	1490
Visitor nights (000s)	85	118	104	130

Note: Rental and campervan average group sizes range from 1.1 - 1.9 depending on market segment

Source: New Zealand Tourist and Publicity Department

It is not immediately obvious which scenario would be of the greatest benefit to Maori as a whole, although it is clear that the benefits of tourism would be more widely spread geographically under the dispersal scenario. To a large extent the ownership of the major elements of the infrastructure, in particular the airlines, tour companies and travel agents, will influence which overseas markets are focused on and thus which scenario eventuates. If the ownership of airlines, major hotel chains and tour operators is concentrated in the corporate sector, perhaps with a high level of overseas ownership, then a concentration scenario is likely to be favoured as the marketers will wish to capture the majority of the benefits.

If the ownership is less concentrated, and there is a high level of New Zealand participation in decision-making, then an overall industry strategy towards the dispersal scenario is more likely. In turn the dispersal scenario is likely to favour investment in small tourist enterprises, with levels of

investment required within the reach of individual or small groups of entrepreneurs. The type of facility required in the dispersal scenario includes regionally-based hostels, small hotels, possibly marae accommodation, horse treks, jet boats, petrol stations, snackbars, etc. It is interesting to note that the Maori Tourism Task Force Report had, amongst its strategies, the need "to gain access to and acquire a measure of control over marketing and distribution channels".⁹

The trade, restaurants and hotels sector, which covers many of the above activities, has traditionally been dominated by small businesses. According to a Planning Council study, *Self-employment and Small Business*,¹⁰ over 40% of the businesses in this sector employ fewer than 10 people, and nearly 60% employ less than 20 people. As a contrast over 60% of manufacturing enterprises employ more than 50 people. This is also indicated by the 1986 Census which split employment into self-employed (including those employing others) and employees.

Infogram 30

EMPLOYMENT STATUS 1986 Census

Sector	Maori			Non-Maori		
	Self-employed ¹	Total	Self-employed as % of total	Self-employed ¹	Total	Self-employed as % of total
Primary	3,041	15,484	19.6	81,092	140,478	57.7
Manufacturing	852	40,493	2.1	23,659	261,334	9.1
Services	5,732	76,750	7.5	141,734	852,334	16.6
Trade, restaurants, hotels	1,586	17,178	9.2	49,400	244,490	20.2

1. Self-employed covers owner operators, employers of others and unpaid family workers

Source: Department of Statistics

The infogram indicates that in order to gain the maximum benefits from a growth in the trade, restaurants and hotels sector, Maori may increasingly need to set up their own business operations. The issues surrounding this are discussed in some length in the Maori Tourism Task Force Report. Growth in Maori-owned and operated enterprises is likely to be assisted under the dispersal scenario, which in turn indicates that Maori need further influence in areas such as airline and tour operations.

9. Changing the Forecasts: Conclusions

The forecasts in *Prospects* show the New Zealand economy in a state of rapid structural change. Much of this change has been inevitable, but as a result New Zealand has been forced into a prolonged period of slow economic growth. The forecasts, however, suggest that for most major economic indicators there are positive trends emerging, but that the growth is far below that required to reduce the current high levels of unemployment.

The effects of unemployment have been particularly felt by Maori. Maori employment forecasts, based on current patterns of participation in the various sectors of the economy, and against a backdrop of a rapidly increasing labour force, point to the potential for a worsening employment situation — in both absolute and comparative terms. This is largely due to the model view that the majority of new jobs will be created in the services sector which is an area of the economy with low Maori participation rates.

It also appears that there are no simple solutions to this problem. John Dyal, of the Maori Development Corporation, recognises the attempts to change, the difficulties encountered, and he points to areas of potential change.

In discussing the shortfalls of Maori economic development, it is often a tendency to overlook the fact that many Maori people have been successful. The problem is not lack of progress but an insufficient pace of progress to begin closing the gap with the rest of the population.

Faster economic development can be regarded as having two major facets:

- (i) greater advance by Maori people who are employed or self employed in general business or Government institutions in New Zealand;
- (ii) a better economic performance by specifically Maori institutions, notably the 1000 or so communally owned Maori economic enterprises and their potential offshoots.

... while identifiable Maori commercial enterprises are heavily involved in the agricultural sector, they are poorly represented in the manufacturing and service sectors of the economy. A major constraint to an increase in the wealth of Maori people is that they are urbanised but a significant proportion of their assets are held in rural land locked into poor financially performing traditional activities.¹¹

Better education and training can, over time, increase participation in the growth sectors and thus improve overall employment levels. Increased productivity in some key sectors can have a similar effect. Some of these types of changes have been explored in this paper and they show that while significant changes can be made, progress has to be extremely rapid if job creation is to keep ahead of the increase in the labour force. These changes are summarised in Infogram 31.

Infogram 31

EMPLOYMENT SENSITIVITY 1984-1992

Employment actual increase (000s) 1984-92	Base case	Increased Maori participation in trade, finance and other services			Increased labour productivity in trade, finance and other services
		Scenario 1	Scenario 2	Scenario 3	
Maori	10.7	15.9	21.4	37.5	11.9
Total	132.2	132.2	132.2	132.2	132.2
Employment growth % p.a. 1984-92					
Maori	1.0	1.5	2.0	3.3	1.1
Total	1.2	1.2	1.2	1.2	1.2
Growth in labour force % p.a. 1986-91					
	No increase in labour-force participation		Increased labour- force participation		
Maori	3.0		3.6		
Total labour force	1.2		1.8		

Note: The employment increase and employment growth are in terms of full-time equivalents, the growth in the labour force measures actual numbers of people

Source: Infograms 13, 14 and 15

This analysis, however, simply shows various ways of dividing up the cake. Although this is necessary if Maori are to achieve lower levels of unemployment within the constraints of our forecasts, ultimately what is needed is considerably faster growth in total employment than that forecast in *Prospects*. The route to such a high-growth economy is the subject of intense debate. What is certain, however, is that considerable creative thinking, co-operation, and innovation will be needed on both the part of Maori and of non-Maori to ensure that the gains from restructuring flow out to the whole community.

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Appendix One

Table 1

FORECAST EXPORT VOLUME GROWTH (ALL SECTORS)
% change per annum

	1987-92	1992-97
Wool	-1.5	0.0
Dairy	1.5	1.5
Meat	-2.5	0.0
Fishing	3.0	5.0
Horticulture	12.0	3.0
Food	3.9	3.9
Textiles	2.3	2.3
Wood	4.0	9.0
Paper	3.0	7.0
Chemicals	1.5	1.5
Energy	13.0	12.0
Mining	44.5	3.5
Ceramics	-0.8	-0.8
Basic metals	4.8	0.3
Machinery	7.1	5.0
Other manufactured goods	3.0	3.0
Total goods	2.9	2.6
Tourism	9.0	8.0
Other services	3.0	3.0
Total exports	3.5	3.3

Source: "Prospects"

Table 2**CHANGES IN EXPORTS AND TOTAL OUTPUT
1984-1992**

	Direct exports \$1983/84m			Total output \$1983/84m		
	Base 1984	Change actual	1984/92 % p.a.	Base 1984	Change actual	1984/92 % p.a.
Agriculture	928	368	4.3	6233	896	1.7
Fishing	105	79	7.2	311	115	4.0
Logging	33	6	2.0	769	152	2.3
Mining	43	172	22.4	972	883	8.4
Food, beverages, tobacco	4036	-119	-0.4	7395	300	0.5
Textiles	1121	283	2.9	3050	556	2.1
Wood	165	24	1.7	1382	152	1.3
Paper	443	157	3.9	2370	495	2.4
Chemicals	285	119	4.5	3421	591	2.0
Ceramics	48	-8	-2.2	690	60	1.1
Base metals	469	225	5.0	1134	319	3.2
Machinery	438	281	6.4	5216	563	1.3
Other manufacturing	61	27	4.8	232	53	2.6
Electricity, gas, water	7	17	16.8	2021	493	2.8
Construction	3	0.5	1.7	6271	310	0.6
Trade, restaurants, hotels	1335	70	0.6	12481	3175	2.9
Transport	1068	1490	11.5	4023	993	2.8
Communications	63	13	2.3	1170	53	0.6
Finance, insurance, real estate, business	168	71	4.5	6029	1315	2.5
Owner dwellings	-	-	-	1982	563	3.2
Private services	56	41	7.1	3198	733	2.6
Public services	-	-	-	6538	499	1.2
Total	10875	3316	3.4	76885	13419	2.0

Source: Non-published "Prospects" tables

Table 3**PRODUCTIVITY AND INDUSTRY REPRESENTATION**

	% increase in productivity per annum	
	1984-88¹	1987-92²
Agriculture	2.7	1.5
Fishing	N/A	1.0
Forestry	7.2	2.0
Mining	17.2	6.0
Food	0.9	3.0
Textiles	4.1	2.5
Wood	-1.4	3.0
Paper	4.7	3.0
Chemicals	-1.4	1.0
Ceramics	N/A	1.0
Metals	}	2.5
Machinery	}	2.0
Other manufacturing	1.7*	2.5
Electricity, gas, water	1.3	2.3
Construction	5.0	2.0
Trade, restaurants, hotels	-2.8	0.5
Transport	3.1	2.3
Communications	5.0	5.5
Finance, insurance, real estate, business	0.0	1.5
Government	-0.9	1.0
Other services	-0.9	1.0
Other	-	-
Total	1.1	1.66

* Average of three sectors

1. PEP estimates
2. NZPC forecasts

Table 4

MAORI EMPLOYMENT BY SECTOR
1986 Census

	Full-time equivalents				
	Total employment	Maori employment		% of sector	
		1	2	1	2
Agriculture	133752	7938	10145	5.9	7.6
Forestry	11168	3242	3759	29.1	33.7
Fishing	5142	368	564	7.2	11.0
Mining	5898	854	1016	14.5	17.2
Food, beverages	69132	11322	13530	16.4	19.6
Textiles	42479	4442	5588	10.5	13.2
Wood	26037	3441	4176	13.2	16.0
Paper	33341	2735	3515	8.2	10.5
Chemicals	25695	2181	2753	8.5	10.7
Ceramics	10251	1137	1395	11.1	13.6
Base metals	7296	782	974	10.7	13.3
Machinery	82943	6429	8220	7.8	9.9
Other manufacturing	4634	266	342	5.7	7.4
Electricity, gas, water	15537	1649	2024	10.6	13.0
Construction	98307	9722	12033	9.9	12.2
Trade and restaurants	261668	11949	17178	4.6	6.6
Transport	68222	6284	7806	9.2	11.4
Communications	38694	3516	4716	9.1	12.2
Finance, insurance, real estate, business	115604	2801	4698	2.4	4.1
Government	75968	6288	8433	8.3	11.1
Private services	244412	14669	19763	6.0	8.1
Other	12695	1818	2123	14.3	16.7
Total	1388875	103833	134732	7.5	9.7

1. By solely Maori origin
2. Maori by origin or descent

Source: Department of Statistics

Table 5**EMPLOYMENT FORECASTS**
(000s)

	1984		1992		1997	
	Maori	Non-Maori	Maori	Non-Maori	Maori	Non-Maori
Agriculture	9.7	117.9	10.6	128.9	10.7	129.8
Fishing	0.6	4.8	0.8	6.4	0.9	7.4
Forestry	3.5	6.9	4.0	7.8	4.4	8.8
Mining	0.9	4.2	1.4	6.9	1.4	6.5
Total primary	14.7	133.9	16.8	150.0	17.4	152.5
Food, beverages	14.5	59.8	13.7	56.2	12.8	52.8
Textiles	5.8	38.2	6.4	42.0	6.3	41.9
Wood	3.6	19.0	3.7	19.1	4.0	21.0
Paper	3.6	30.6	4.0	33.7	4.2	35.4
Chemicals	2.8	23.3	2.9	24.1	3.3	27.5
Ceramics	1.5	9.2	1.5	9.7	1.8	11.3
Base metals	1.2	7.8	1.4	9.0	1.4	9.1
Machinery	7.5	67.8	7.9	71.7	8.8	80.3
Other manufacturing	0.5	5.7	0.5	6.5	0.5	6.6
Total manufacturing	40.9	261.5	42.0	272.1	43.2	285.8
Electricity, gas, water	2.1	13.7	2.4	16.1	2.5	16.8
Construction	10.7	78.0	10.6	76.3	12.0	86.3
Trade and restaurants	14.5	206.4	17.7	252.1	20.2	287.6
Transport	7.8	60.4	9.1	70.6	10.3	79.9
Communications	4.3	30.7	4.1	29.6	3.6	25.6
Finance, insurance, real estate, business	4.0	95.3	4.7	110.6	5.4	126.8
Other services	28.7	286.5	31.0	309.3	33.6	335.5
Total services	72.1	769.9	79.7	864.6	87.6	958.4
Total employment	127.7	1165.2	138.3	1286.7	148.2	1396.8
Growth in employment per annum %			1.0	1.3	1.4	1.7

Table 6

MAORI LABOUR FORCE AND EMPLOYMENT GROWTH COMPARISONS

	% increase p.a. Assuming no increase in participation	% increase p.a. Assuming an increase in participation
Labour-force projections		
1986-1991	3.0	3.6
1991-1996	2.7	3.0
Growth in Maori employment		
1984-1992	1.0	
1992-1997	1.4	

Note: Labour-force projections represent actual numbers while
employment growth is measured in job equivalents

Table 7

EMPLOYMENT BY INDUSTRY
1986 Census, all ethnic groups

(Actual numbers)	Full-time	Part-time
Finance, insurance, real estate, and business services		
Finance	34,257	3,411
Insurance	13,035	1,422
Real estate	9,345	1,362
Legal services	10,089	1,587
Accountancy	10,974	1,641
Data processing	5,805	699
Engineering, architectural	9,645	1,179
Advertising, market research	4,917	1,134
Business services (security, typing, management consultancy)	8,727	2,154
Machinery rental	<u>1,455</u>	<u>147</u>
Sector total	108,249	14,703
Whole trade, retail trade, restaurants and hotels		
Wholesale trade	78,579	6,954
Retail trade	113,100	33,690
Restaurants, eating places	22,125	12,108
Hotels, motels, guest houses	<u>17,382</u>	<u>8,193</u>
Sector total	231,186	60,945

	Full-time	Part-time
Community, social and personal services		
Public administration + defence	73,815	4,302
Sanitary + similar services (includes cleaning services)	7,020	4,806
Education	59,115	22,467
Research + science	6,060	444
Medical, health and veterinary	61,926	21,864
Welfare institutions (rest homes etc)	9,618	5,700
Business, professional and labour associations	2,529	381
Religious organisations and other community services	7,671	1,641
Recreational and cultural services	20,337	6,147
Repair services	19,755	2,490
Laundries, domestic services	4,512	2,109
Other personal services	<u>10,035</u>	<u>2,304</u>
Sector total	283,035	74,655

Source: Department of Statistics

Table 8

EMPLOYMENT BY OCCUPATION
1986 Census, all ethnic groups, full-time

	Wholesale/retail trade/restaurants/ hotels	Finance/insurance/ real estate/ business	Community/ social/ personal services
Professional, technical and related workers	9,408	26,925	119,769
Administrative and managerial workers	19,314	9,963	8,349
Clerical and related workers	34,263	52,737	52,038
Sales workers	91,422	11,913	3,636
Service workers	33,357	1,968	55,326
Agricultural workers	1,512	297	8,019
Production, transport, equipment operators and labourers	41,055	4,215	35,013
Not adequately defined	852	228	3,675
Total	231,186	108,243	283,035

Source: Department of Statistics

Table 9

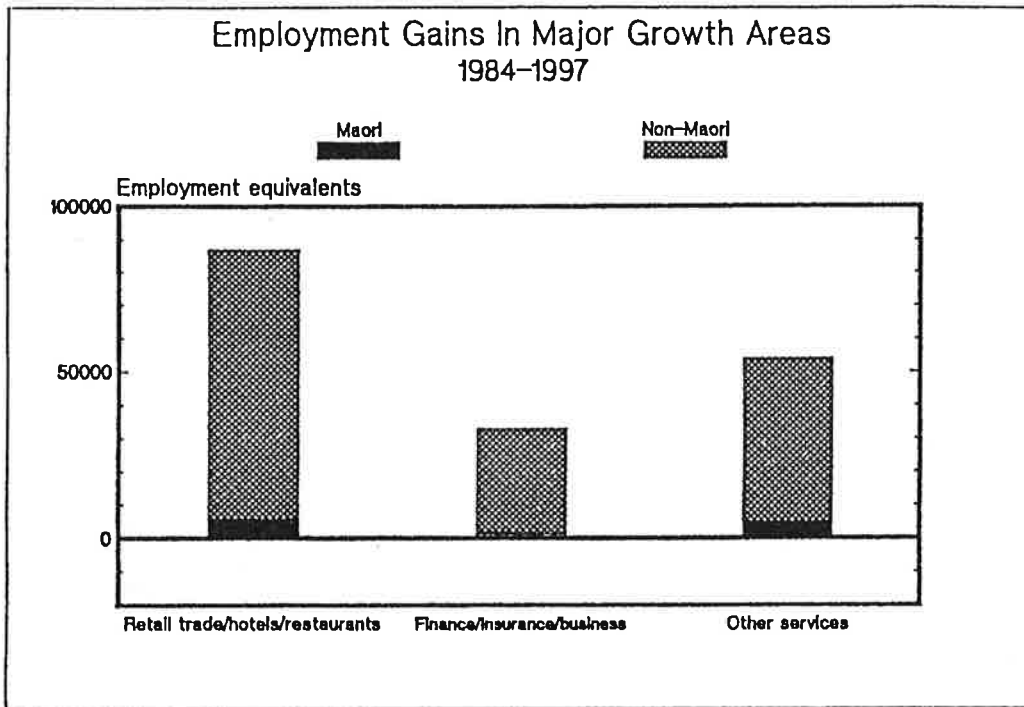
EMPLOYMENT IN THE FORESTRY SECTOR

	1984 (000s)	Annual growth rates		1992 (000s)	1997 (000s)
		1984-92	1992-97		
Logging/ harvesting	10.4	1.6	2.3	11.8	13.2
Wood	22.6	0.1	1.9	22.8	25.1
Paper	34.2	1.2	0.9	37.7	39.5
Total forestry	67.2	0.9	1.5	72.3	77.8

Source: "Prospects"

Appendix Two

Infogram 1



Infogram 2

