

88

x2

# What Creates New Jobs?

NEW ZEALAND  
**Planning  
Council**

*Te Kaunihera Whakakaupapa  
Mo Aotearoa*

NZPC October 1989

What Creates New Jobs?

By: Paul Callister

# What Creates New Jobs?

Paul Callister

New Zealand Planning Council  
PO Box 5066  
Wellington  
October 1989

ISBN 0-908601-65-4

“ Ka patai koutou ki au, he aha te mea nui? Ka ki atu ahau ki a koutou.  
He tangata, he tangata, he tangata!

You ask me, what is the greatest thing? I say to you, it is people,  
it is people, it is people! ”

## Introduction

Since 1984, much of the discussion on the creation of new, sustainable, private sector employment opportunities has focused around issues over which central government appears to exert some considerable control — interest costs, inflation, tax regimes, the exchange rate, and the level of government expenditure. Often this discussion has concentrated on a narrow range of factors, such as the Reserve Bank’s focus on the rate of inflation or the Manufacturers’ Federation targeting of interest rates and exchange rates. Although each of these factors — either in isolation or acting together — are obviously crucial elements in determining the growth of employment, they only go part of the way towards explaining incentives or impediments to the job creation process.

In more recent times, as interest rates, exchange rates and inflation have fallen, but growth has remained static, there has been a move to examine the wider range of impediments and incentives for economic expansion, particularly at an enterprise level. This has spawned a range of government and academic studies of enterprises,<sup>1</sup> but has also rekindled the debate about ‘freeing up’ the labour market. At one end of the political spectrum there are groups such as Federated Farmers, elements of the National Party and the Labour Party, and the Business Roundtable who are calling for substantial ‘deregulation’ of the labour market as a prerequisite to reducing impediments to growth. At the other end of the spectrum, there are those who see deregulation as a step towards driving wages and working conditions down, primarily for the benefit of international capital. Within this debate, and also within the existing industrial relations legislation, there are some unions, industrial commentators, and a number of firms who are actively exploring new concepts of worker protection, industrial democracy, and workplace restructuring to improve the position of both capital and labour.

This paper is an attempt to explore some of the wide-ranging elements in the job creation process. It does not focus on macroeconomic issues, but instead looks at some of the factors which are more difficult to measure, including culture and attitude. Where relevant, these factors are analysed within a framework of labour market flexibility. Where also relevant, reference is made to Australian initiatives in job creation/labour relations, as we have similar resource-based economies and our markets are slowly merging.

The paper is broadly divided into four sections. The first sets out a framework for labour market flexibility. The second section examines the reasons why businesses are established. The third section examines some of the reasons why businesses gain a competitive edge, enabling them to expand output and ultimately expand employment. The fourth section looks briefly at the role of education in providing skills and attitudes required for successful business creation and expansion.

## Why is there a need for a flexible workforce?

In very broad terms, there are two development paths for any industrialised economy. These views are summarised by American writer Robert Reich.

“In the new global economy, nearly everyone has access to Big Ideas and the machines and money to turn them into standardised products, at about the same time, and on roughly the same terms. The older industrial economies have two options: they can try to match the wages for which workers elsewhere are willing to labour; or they can compete on the basis of how quickly and well they can transform ideas into incrementally better products.

The first path — towards stable mass production — relies on cutting labour costs and leaping into wholly new product lines as old ones are played out. For managers this path has meant undertaking (or threatening) massive layoffs, moving (or threatening to move) to lower wage states and countries, parcelling out work to lower cost suppliers, automating to cut total employment, and diversifying into radically different goods and services. For workers this path has meant defending existing jobs and pay scales, grudgingly conceding lower wages and benefits, shifting burdens by accepting lower pay scales for newly hired workers, seeking protection from foreign competition and occasionally striking.

The second path .... involves increasing labour value. For managers this path means continuously retraining employees for more complex tasks, automating in ways that cut routine tasks and enhance worker flexibility and creativity, diffusing responsibility for innovation, taking seriously labour’s concern for job security and giving workers a stake in improved productivity via profit linked bonuses and stock plans. For this second path means accepting flexible job classifications and work rules, agreeing to wage rates linked to profits and productivity improvements, and generally taking greater responsibility for the soundness and efficiency of the enterprise.”<sup>2</sup>

(These two paths are shown in the Appendix to this paper.)

Although features of the first scenario are evident in New Zealand, it is not a route which will ultimately lead to a high income, high employment society. This view is also shared by Ken Douglas, President of the New Zealand Council of Trade Unions.

“The reality for the New Zealand economy is that we can not compete, in Taylorist terms, with low wage production line economies. Not, that is, unless of course we become one ourselves, and I think there is general agreement that we wish to avoid that.

New Zealand’s strength, in economic terms, therefore arises out of the relative quality of our education system and the possibilities of a highly skilled and flexible workforce that it creates. In other words, we can not prosper by trying to outdo low wage economies in an assembly line production approach which is based on breaking work down into simple tasks, and having it performed by unskilled or low skilled workers. What we can do is develop a highly skilled adaptable workforce which concentrates on quality (rather than

quantity) production, and innovation. To do this we need to harness the knowledge of workers about the production process, and develop methods of work organisation which allow all participants an input.”<sup>3</sup>

If we accept that New Zealand wishes to have a flexible, skill-intensive economy, what are the key areas of labour market flexibility to focus on, and how will movement in these areas ultimately lead to the creation of high income jobs?

## Types of labour market flexibility

In broad terms, there are two areas of labour market flexibility — internal and external. External flexibility concentrates on issues such as wage rates across a whole economy relative to other nations, geographic mobility (requiring a change of residence), job mobility (involving a change of employer), and occupational mobility (involving a change of skill undertaken outside the employing organisation). Much of the debate on labour market flexibility in New Zealand has concerned real wages. For example, the Reserve Bank has argued that the rise in real wages has been a major contributing factor to the recent growth in unemployment.<sup>4</sup> Issues of external labour market flexibility, while important, only partly explain why people set up businesses, go on to expand these businesses and ultimately create employment.

Of more relevance here are issues of internal labour market flexibility — that is, flexibility at the enterprise level. According to the OECD there are five main areas of internal labour market flexibility:<sup>5</sup>

- externalisation or ‘distancing’ (hiring temporary staff, putting work out, on-site subcontracting, conversion of dependent employees to self-employed status, etc)
- functional flexibility (multi-skilled workforce, job mobility, semi-autonomous groups, rotation, etc)
- wage flexibility (setting wages individually and linking part of earnings to performance)
- external numerical flexibility (more flexible redundancy procedures, temporary work, fixed-term contracts or short-term contracts, job sharing, etc)
- internal numerical flexibility (variation of working hours, increase in shift work, weekend shifts, etc).

The relevance and/or importance of each of these areas of labour market flexibility to the job creation process can be looked at in two steps — the creation of businesses and the expansion of employment in these enterprises.

## Why people set up businesses

In terms of job creation, there has been much debate in the past about the relative importance of the setting up of small businesses or the expansion of larger enterprises. Ultimately, however, the existence of all business operations can be traced back to small beginnings. So why do people set up businesses?

In his book, *Small Business in New Zealand*, Alan Bollard suggests that part of the motivation of the entrepreneur is to be found deep within their personality, and part lies in the business culture of the country, and how it encourages or discourages the entrepreneur to act.<sup>6</sup> He goes on to suggest that in Britain small business operations have low status and that most who move into this area are immigrants or

“the person with practical skills who was often poorly educated, something of a misfit in society, spurning authority and not fitting easily into wage employment”.

At the other end of the spectrum Bollard cites the United States as having a more positive attitude towards entrepreneurs and small business people, where small business is considered the very cornerstone of the capitalist system, and high profits are seen as the fair reward for effort and enterprise. He also suggests that Americans are more prepared to accept the risk of failure.

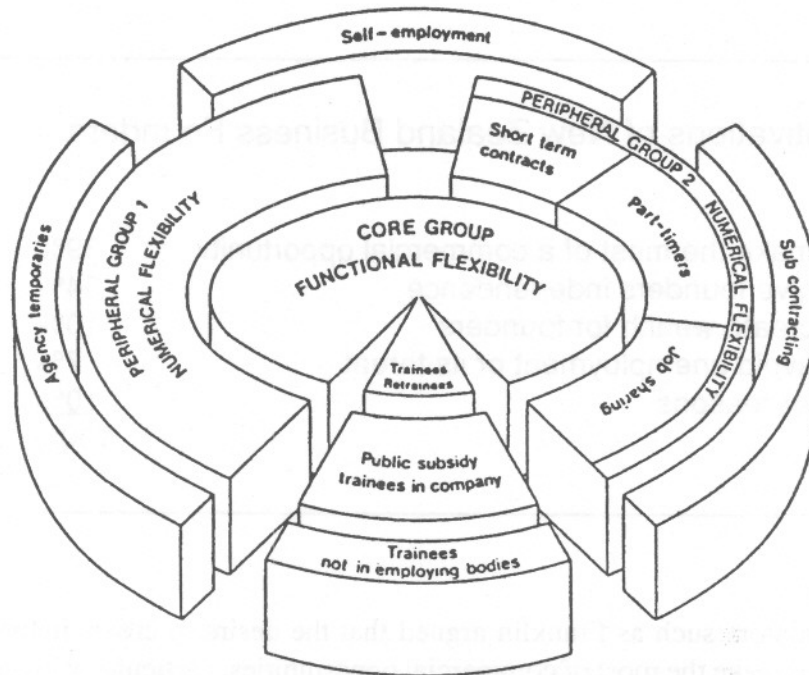
“If you start a company and fail you are seen as innovative, a great guy. So what if you failed — you tried, and learned a lot in the process.”

Bollard suggests that New Zealand lies somewhere between the British and the American models. Levett argues that the British model has been adopted by New Zealand through inheriting British 19th century education patterns which undervalued commerce.<sup>7</sup> In addition, Levett argues that when New Zealand was effectively Britain's farm, local entrepreneurs who were internationally oriented had little scope for development. Harvey Franklin, in *Cul de Sac*, takes a more negative view and suggests that New Zealand culture has not been particularly supportive of people who develop innovative new enterprises, and instead supports conformity and dependency.<sup>8</sup> He links this to the expansion of the welfare state and adherence to beliefs in egalitarian principles.

Bollard goes on to question the motives of people who set up businesses, and identifies two major catalysts as being ‘push factors’ or ‘pull factors’. The push factor occurs when someone loses their job or needs to earn more money. The loss of jobs could include moves towards externalisation or distancing by existing firms, and may result in the person being re-employed on a contract basis, or supplying the original firm on a self-employed basis. In a period of recession this rearrangement of work patterns is less likely. Bollard goes on to note that in times of recession general demand is low and new start-ups not so easy, and he adds that unemployed people are not generally skilled in business management. This latter point may, however, be changing as restructuring is now displacing many more senior experienced people, both in the public and the private sectors. With high levels of capital, through savings and possibly redundancy payments, and business experience, these people represent a new potential source of entrepreneurs.

The concept of externalisation has often been used to explain the recent, very rapid growth of small business in almost all Western economies.

This model of a 'flexible firm', developed by the British Institute of Manpower Studies,<sup>9</sup> provides a good example.



The use of this model implies a two-tier labour market. At its centre there are stable established businesses, with both core and peripheral workers. Outside are the more dependent, vulnerable self-employed and small businesses. This model is, however, static and rather limited, and does not take into account that small businesses may not necessarily depend on a central business for work but may, in fact, directly service consumers both domestically and overseas, or service other small businesses. It also implies that the central business holds most of the power in the relationship, with periphery workers/businesses having less power. In the example of Japanese car manufacturers, with their many weak subcontractors, this may be true but alternative models exist. The computer industry, with its many skilled subcontractors, the advertising industry, with highly skilled film and video subcontractors, market researchers and graphic artists, and almost all firms with their highly paid accountants, financial advisors, lawyers and engineers, indicate a different model can operate.

Externalisation or 'distancing' can, therefore, be viewed either positively or negatively according to how a particular industry is analysed, or according to a particular group's viewpoint. From a large manufacturer's point of view it may represent an opportunity to cut costs and pass risk out to another party, but for a highly skilled entrepreneur it might represent the opportunity to develop a specialist niche market. From a management point of view it would generally be seen as a positive aspect of economic restructuring; from a union point of view it would represent either a loss or a scattering of members across smaller organisations. The attraction of moving into self-employment/small business therefore needs to be analysed as much as the push factors.

Bollard identifies the pull factors as the lure of self-organisation, power, initiative, risk-taking and wealth, and he suggests that a combination of these factors has been the dominant force in small business start-ups in the United States. These pull factors are not easily examined in the context of labour market flexibility. In a survey of 900 founders of New Zealand business, Hamilton (1986) found that pull factors predominated.<sup>10</sup>

---

### Motivations of New Zealand Business Founders

To make the most of a commercial opportunity	39%
To give founders independence	34%
To create wealth for founders	10%
To avoid unemployment or its threat	7%
Other reasons	<u>10%</u>
	100%

---

Before 1984, commentators such as Franklin argued that the desire to create individual wealth, seek independence, and make the most of commercial opportunities, particularly in the unsheltered export sector, was subdued by the growth of the welfare state.

An additional factor operating against small business/new venture development has been the prevalence of the 'big solution' attitude to economic development, which culminated in the government-led 'think-big' projects. The notion of development via a large number of small enterprises, targeting niche markets, has been in the past a more difficult model to convey to the public.

Since 1984, but before the October 1987 sharemarket crash, there appeared to be a dramatic change of attitude towards the setting up of new business enterprises. There were many seemingly innovative ideas, including non-traditional livestock farming of goats, deer, rabbits, bloodstock and llamas; waste recycling; export of water; firewood growing; plus the usual property development; tourism ventures; and financial operations. State-owned enterprises were also developing a new business enterprise culture, and were beginning to test the marketplace with new ventures.

Private sector development was primarily assisted by a strongly advancing sharemarket, which brought quick monetary reward to those setting up businesses in terms of capital gain, well before any real income was forthcoming. New manufacturing ventures were, however, notably absent.

This growth in new businesses is reflected in Census data which show a strong increase in self-employment between 1981 and 1986, after a long-term decline since the 1920s.



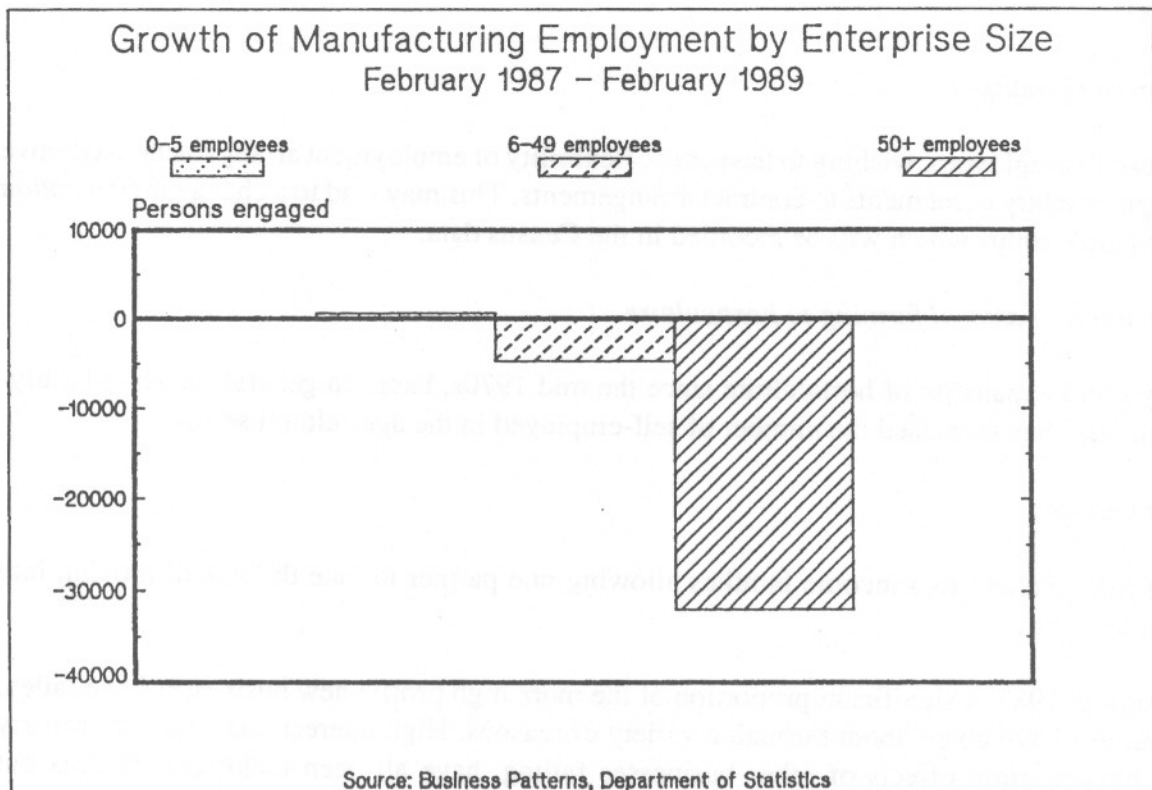
### Self-employed as a Proportion of the Labour Force

% of labour force <sup>1</sup>	1926	1936	1945	1956	1966	1971	1976	1981	1986
Self-employed with employees	9.5	9.1	9.4	7.5	7.2	6.1	6.6	5.9	7.3
Self-employed without employees	12.8	11.4	9.6	9.8	6.8	6.5	7.2	7.0	9.3
All self-employed	22.3	20.5	17.9	18.7	14.0	12.5	13.8	12.9	16.6

1. Total full-time labour force includes unemployed, and for all time periods represents those working 20 or more hours per week

In the past, a significant proportion of self-employed people in New Zealand were in the rural sector, with farmers representing the largest single group of self-employed.

In more recent times, the increase in self-employment appears to be spread across virtually all industry types. Perhaps the most surprising trend is a small net increase in manufacturing jobs within small businesses between 1987 and 1989. This increase is, of course, swamped by the very large loss of manufacturing jobs in the larger-sized enterprises in this period.



It is difficult to isolate the effects of changes in attitude, structural change in the economy, and change related to labour market flexibility in this trend. Up until the mid 1970s much of the decline in the proportion of self-employed can be linked to the decline of employment in the primary sector where the proportion of self-employed is high, and also to the rise of manufacturing where self-employment is relatively low. Some of the more recent changes reflect a range of other factors.

### *Technological change*

Over the last few decades there has been considerable focus on economies of scale, particularly in manufacturing, but also in areas such as banking, transport and communications, forestry and fishing. This has also been associated with the growth of multi-national firms, where the economies of scale can be on a worldwide basis. In certain areas, this trend towards large enterprises is likely to continue. However, new technology, particularly in the area of micro-electronics, is also enhancing the competitiveness of small scale customised production, giving rise to new opportunities for self-employment.

### *Institutional change*

Corporatisation, devolution, and freeing-up entry barriers for new firms all potentially contribute to growth in self-employment. Two examples of where there have been major changes are the corporatisation of the New Zealand Forest Service and the Post Office, particularly telecommunications. In forestry some of the former wage and salary earners are now contractors, while in communications a wide range of new companies have been set up to install and sell telephones, put in wiring, lease PABX, etc. With devolution there is also more potential for subcontractors at a local level.

### *Labour market changes*

Employers, or employees, wishing to have more flexibility of employment arrangement may move from wage or salary agreements to contract arrangements. This may lead to a change in *perception* of employment status which will be recorded in the Census data.

### *The switch from pastoral farming to horticulture*

The very rapid expansion of horticulture since the mid 1970s, based in general on small family-sized holdings, has increased the number of self-employed in the agricultural sector.

### *Lifestyle changes*

Changes may include two-income families allowing one partner to take the risk of moving into self-employment.

Since October 1987, a significant proportion of the more high profile new businesses have failed. These failures have come about through a variety of reasons. High interest rates, falling property prices, chain-reaction effects of other businesses failing, have all been major contributors but

business naivety and, in some cases, lack of substance have also been factors. The business naivety may reflect a lack of business tradition, experience and training among entrepreneurs. The failures have resulted in a considerable number of New Zealanders having to face the negative side of innovation and risk taking, potentially reinforcing the 'risk-aversion' attitudes already learnt in the past few decades.

However, despite these business failures, there still appears to be growth in self-employment. The Department of Statistics' Business Patterns Survey indicates that the percentage of those gainfully employed in the category 'individual ownership' rose from 7% in 1987 to 7.2% in 1988, and those in partnerships rose from 8.6% to 8.8%. If a significant proportion of these new businesses can thrive and grow, this will set a wider potential employment base for expansion.

The potential for a small business to expand is analysed in more detail in the next section. Theoretically, small businesses should have a high degree of internal labour market flexibility, so should be well placed to respond to change. In terms of *functional flexibility* it is likely there will be multi-tasking within a firm, particularly for self-employed sole operators. With *wage flexibility* the situation may be more complex. In very contestable markets, such as farming or operating a corner dairy, wage or, more accurately, income flexibility will be substantial. In relatively non-contestable markets, such as general practitioners or electricians, wage flexibility may not be high.

Finally, in looking at the creation of small businesses, Bollard attempts to identify the characteristics of New Zealand entrepreneurs. He notes that

“the small amount of data available suggests that the self-employed in New Zealand tend to have relatively less formal education (both university and trade qualifications) than do wage and salary earners. This reflects the fact that many farmers, shopkeepers and service people have no formal training, although that may not prevent them from being very good at their jobs. In contrast to the self-employed, those who own slightly larger firms and employ labour tend to have more university qualifications (although not a high degree of technical training) in relation to wage and salary earners”.

Earlier Planning Council research has attempted to identify business owners by country of origin.

### Business People by Birthplace 1981 Census %

	New Zealand				
	All NZ born	Maori	Asia	British Isles	Pacific Islands
Self-employed as an employer	6.5	1.8	7.6	4.1	1.4
Self-employed on own	7.6	2.4	8.5	6.4	1.2

Source: "Self-employment and Small Business", New Zealand Planning Council 1985

Just over 14% of the New Zealand-born labour force were self-employed in 1981; 21.7% of continental Europeans and 16.1% of Asians were also in this category. In contrast, only 2.6% of Pacific Islanders and 4.2 percent of New Zealand Maori were categorised as self-employed in this period. Such diversity reflects the culture of the particular ethnic group, whether the group are predominantly migrants, and the opportunities that existed at the time of migration. The culture will also change under different circumstances, as indicated by the strong entrepreneurial nature of Maori society in the first couple of decades after the signing of the Treaty of Waitangi.

## Why businesses expand

The next step from finding out why people set up businesses is to determine the factors that lead to the expansion of output from these business enterprises. As mentioned earlier exchange rates, inflation, aggregate demand, interest rates, and tax regimes are all an integral part of the production equation. So too are factors such as availability of venture capital and the compliency costs of PAYE, income, company and fringe benefit tax, GST, ACC and land tax requirements.

But these factors do not entirely explain why some businesses succeed and others fail. In looking only at these factors it is difficult to explain why, for example, Japanese exports increase when the value of the yen soars, whereas in a similar situation in other countries, exports would suffer.

Natural comparative advantage and strength of markets can be also seen as factors in the success of industries and individual firms. Some industries in New Zealand — such as farming, forestry and fishing — start with some easily defined, natural comparative advantage which can be built upon. Others — such as education services or tourism — appear to be areas where there is a strong international demand to tap into. These sectors or industries are, however, not directly addressed in this analysis. Instead, two relatively basic manufacturing industries are examined — the machinery and textile sectors.

Both of these sectors have been established in a protected environment, and both appear to have no natural comparative advantage in New Zealand. Machinery and textiles are being progressively opened up to overseas competition and both have, until recently, been declining in output and employment terms in the current restructuring process. Yet according to the Planning Council's modelling exercise (*Prospects: Economic and Sectoral Trends to 1997*, 1988) both are forecast to expand exports, total output and employment in the period from 1984 to 1997.

Without protection, without subsidies, without rapidly expanding marketplaces, and without natural comparative advantages, firms have to rely substantially on their own initiatives to be competitive. Many of these initiatives fall within the context of labour market flexibility.

## The machinery sector

The machinery sector covers a wide range of industries, from car manufacturing to yacht building in transport equipment, electric fences and milking machines in agricultural equipment, lawnmowers, washing machines and stoves in domestic appliances, as well as a range of both domestic and industrial electronic equipment.

The electronics area is of particular interest as it has been hard hit by the closing down of production lines involved in television and audio manufacturing, yet overseas experience would indicate that this can be a major growth industry. A recent report by the Department of Scientific and Industrial Research indicates that a number of electronics manufacturing firms have shown real growth in production, exports and employment, during the difficult climate that has existed for this industry over the last few years.<sup>11</sup> The report's projection of the likely output of these dynamic firms over the next few years indicates that total industry output should now begin to slowly expand. An analysis of the factors that these firms consider to be most important for future growth identifies research and development, developing better marketing capabilities, improving the quality of products, prevailing interest rates, productivity, and inflation.

### *Research and development*

Research and development (R & D), better marketing capabilities, improved quality and higher productivity are often discussed in isolation, but in reality they are closely linked. The low level of R & D in New Zealand has often been criticised, yet it is generally recognised that a high level of R & D will be needed if New Zealand is to sell its products on innovation rather than only on price. A possible side effect of the dependency mentality identified by Franklin is that the bulk of formal R & D has been traditionally left to government, with the effect that overall R & D as a percentage of GDP is low relative to other growth economies. The following table shows aggregate levels of expenditure on R & D in 1985.

### Gross Domestic Expenditure on Research and Development 1985 selected countries

	% of GDP	% financed by industry
Japan	2.81	68.9
US	2.77	47.9
Germany	2.67	61.8
UK	2.32	46.1
NZ	1.01	19.2*

Note: \* 1983

Source: Data base of the OECD Scientific, Technology and Industrial Indicators Division

In comparison with New Zealand, only seven out of 25 OECD countries surveyed had lower R & D expenditure as a percentage of GDP — those being Greece, Ireland, Iceland, Portugal, Spain, Turkey and Yugoslavia.<sup>12</sup> (It is interesting to note that New Zealand is placed in a similar ranked position when GDP per capita and post compulsory levels of education and training are examined.)<sup>13</sup> Of the total R & D expenditure, New Zealand also ranked the lowest of all surveyed countries in terms of the proportion financed by industry.

A New Zealand Manufacturers' Federation survey of New Zealand manufacturing spending on R & D (undertaken in mid 1988) indicates that, in real terms, industry R & D has declined by 50% in the period 1983-88.<sup>14</sup> In some overseas countries, in particular the United States, military R & D will form a significant part of the total research budget. In addition, countries such as Japan, with its dependence on high-tech manufacturing, need to have a high level of formal, and thus easily measurable, R & D. Japan, however, also appears to have a high level of formal R & D in non high-tech industries, such as textiles, which further increases its R & D expenditure.

Increasing formal R & D relies on a range of factors, including reducing government debt, increasing profitability of companies and, of major importance in the longer term, increasing levels of research skills within the economy. Formal R & D is, however, only part of the innovation process. Informal R & D is perhaps the area in which New Zealand businesses can make the most progress. In comparing Japanese car plants with those in the United States, it is clear that there are significantly different levels of informal R & D between nations.

“In the plants of Toyota, Honda, and Nissan, employees submit an average of 27 suggestions per person, per year. At Toyota alone, over 90% of suggestions made are adopted, 3,365 suggestions are implemented per day, savings are over 30 million dollars. Contrast this degree of involvement, participation and communication with the American yearly average of one suggestion per 37 auto employees, with an implementation rate of just over 20%.”<sup>15</sup>

The Japanese level of informal innovation requires flexible attitudes of both management and workers. Such flexibility includes a high level of functional flexibility with multi-skilled workforces and semi-autonomous groups, and wage flexibility giving some reward for innovation.

The level of R & D, and how it is utilised, are of course an integral part of increasing productivity.

### *Improving productivity and quality*

On a technical level, the OECD analyses the links between R & D and productivity. They suggest that countries with rapidly growing R & D stocks have faster total factor productivity growth (TFP), but add that the link between R & D growth and TFP growth is quite possibly linked with other factors.<sup>16</sup>

These other factors are of considerable interest. Measurements of total factor productivity are designed to include increases in the value of output from both capital and labour, but productivity is usually measured in terms of items of output per person. This tends to narrow many people's view of how to increase productivity. According to Gilmour:

“Within this context, technological innovation has often been directed towards producing the same product more cheaply. Quality, innovation and excellence are all contributors to increased productivity, in that they increase the value of the product or service. Value is added by making the most effective use of all the skills that are available.

If the notion of productivity is to be useful to us, we must see it as being about creating new products or services for identified niche markets, about image development and projection to segmented markets rather than mass marketing, and about a commitment to quality which is not about assembly-line inspections, but rather derives from a cultural attitude which is socially and educationally reinforced. So productivity becomes a social and cultural issue as much as an economic one."<sup>17</sup>

This line of argument takes the issue of productivity well beyond the workplace. It suggests that 'added value' comes increasingly from information and knowledge in its widest sense — such as design and not just laboratory-based R & D; that this information and knowledge requires a high level of 'creativity' throughout all areas of the economy; and that, ultimately, it is a nation's cultural identity that influences the level of creativity.

Tom Peters, in his video *Shape of the Winner*, supports and further extends this view. He suggests that all economic activity (including that undertaken in the machinery sector) should be seen as a 'service' sector activity, in that it is information and knowledge-based services, as an added value component of the physical product (design, market research, advertising, sales techniques, after sales backup, etc), which increasingly sells products and ultimately creates jobs.<sup>18</sup>

In a New Zealand context, writers such as Dordick support this view.

"New Zealand's economic future may very well rest upon its appreciation of the true meaning of the word 'information'. The nation's farmers and industrialists, bankers and retailers, scholars and students, must recognise that the information era is more than merely a world in which word processors replace typewriters and computers replace calculators. It is an era in which information is the raw material out of which value and wealth is created."<sup>19</sup>

In Australia this argument is taken further, by suggesting a need to break down artificial barriers if we are to create a high productivity society.

"Knowledge and information are now critical factors of production. It is the knowledge that is embedded in the product that gives it its critical advantage. This knowledge is a combination of creative insight both in terms of the production process and the initial dreaming up of the product itself. All this leads to a much greater emphasis to link separate spheres of knowledge, to crash through disciplinary boundaries."<sup>20</sup>

### *Breaking down artificial barriers*

Integrating the knowledge and information-based added value components — such as design, marketing, quality control — into the production process suggests a need for more flexible and co-operative relationships in both society and in the workplace. In design the relationships include those between artists, crafts people and manufacturers. In many New Zealand manufacturing industries such links do not appear to have been well developed, yet in some other countries and cultures these links are actively exploited. Designers, of course, see a need to develop the relationships.

“We believe design is the one unified thing you can use that you can promote across the board, where it doesn’t matter if you’re talking about primary products or hi-tech.

The most successful countries in the world are design-led, and it’s not impossible to inject design into everything this country does. Italy does it. Denmark did it. Here in New Zealand Fisher and Paykel’s entire marketing drive is based on design and it’s breaking into overseas markets with it.”<sup>21</sup>

Bringing different groups in society together can be encouraged by outside parties. An example in the design area is a “Creative Australia” project run jointly by the Australian Council and the Commission for the Future. This project is actively encouraging more contact between industry and the arts.<sup>22</sup>

To link all the information and knowledge-based service into the productive process at the workplace, other barriers also need to be broken down. The engineer/production worker/quality controller/salesperson hierarchies need to be broken down, and the management/worker relationship is another obvious target. This is the aspect of labour market flexibility defined as functional flexibility, and it is a central part of growth economies such as Sweden and Japan.<sup>23</sup> In engineering in New Zealand, the ‘Nissan Way’ and New Zealand Steel agreements attempt to go some distance towards this philosophy.

In the Nissan example, multi-skilled work teams move across traditional demarcation boundaries in undertaking a variety of tasks. These tasks include not only manual assembly work, but also an integration of quality control into the work process. To encourage a concern for quality and productivity, information on material costs, output and sales are provided for the shopfloor workers, and workers are then given more control as to how to improve work practices. This devolution of control includes the ability of teams to rearrange workers when there are staff shortages in particular areas, and a high degree of control in the hiring and firing process.

At New Zealand Steel traditional lines of demarcation are also being broken down in a multi-skilling/multi-tasking concept, with payment related to *what workers know* not *what they do*. This requires reorganising job descriptions/occupational classifications which, within a unionised workforce, will be set out in the relevant award.

Many industrial awards have become outdated, their classification structures and conditions no longer appropriate to modern economic, technological and industrial circumstances. The continuation of the fireman’s position on diesel trains is an example. Restructuring of awards in order to create flexibility in a workplace is likely to include:

- removal of obsolete classifications
- a reduction in the number of classifications
- the broadbanding of a range of jobs under appropriate single classifications
- the establishment of links between training skills and wages, which results in a career path to enable a worker under the award to progress to the highest job classification.



Such restructuring is designed to reward the gaining of appropriate skills, rather than relating payment to length of service, or some historical hierarchy. Thus, in a flexible enterprise there would be an increase in 'payment for knowledge'.

"The new paradigm is demanding a whole new set of skills — in particular we are moving from the mass worker to the 'Knowledge' worker, who is multi-skilled and who works in a team approach. Organisational paradigms are no longer about control, but about systemic learning."<sup>24</sup>

Franklin takes this payment for knowledge debate back out into the wider society, and argues that increased wage flexibility, ultimately leading to a greater divergence of wages, is needed to reward upskilling.<sup>25</sup> In New Zealand there has been much work on measuring wage movements between industries and occupations, but with little focus on relating these changes to shifting skill patterns.<sup>26</sup> In the truly flexible firm, payment is also likely to be tied to the performance of the individual and the enterprise as a whole.

Payment for knowledge, at the workplace, recognises the need to capture the creativity of all people in the workplace, not just the managers. Making full use of creativity at all levels of an organisation is likely to assist the competitiveness of the firm. This has been recognised by Nissan worldwide.

"Nissan New Zealand's view of better human resource management, is that it simply means providing a practical method for all employees in the organisation at all levels, to make their best contribution to the company objectives, by developing their potential to the fullest extent of their individual abilities — by way of not only their manual skills in the case of shopfloor workers, but also their brains, their enthusiasm, their energy and their ideas."<sup>27</sup>

At Nissan and at New Zealand Steel there has been an increase in "the meaningful participation of workers in decisions affecting their working lives". However, Boxall draws the distinction between *task-related* participation, as at Nissan and New Zealand Steel, and *policy-related* participation, such as profit sharing or worker co-operatives.<sup>28</sup>

This movement towards breaking down artificial barriers at both New Zealand Steel and Nissan has been achieved within existing legislation, but it has required major attitudinal changes by both unions and management. Whether these changes would have occurred at a faster rate, and would have been more far reaching in their impact in a more deregulated labour market, is open to debate.

Breaking down barriers can improve quality and innovation or cut operating costs. But these benefits need to be communicated to customers. Changes in work practices are therefore of little relevance unless marketing capabilities match improved production performance. In the case of Nissan, marketing capability seems to have matched productivity improvements, resulting in increased market share since the introduction of the Nissan Way, as well as increased employment and improved wages. Improved marketing capability, in the case of a car manufacturer, will mean effective advertising/sales campaigns, efficient transport and distribution networks, and high

quality after sales service. This requires good communication/co-operation from car designers, through the factory floor, to the mechanic who gives after sales service. Breaking down artificial barriers is therefore not just limited to the point of production.

*Unleashing creative potential — changing cultures*

In order to break down artificial barriers, and thus unleash the full productive potential of the workforce, Australian researchers suggest that concepts of labour market flexibility also need to take into account 'culturally' dependent ideas of experimentation and risk taking.

“[There is] a need for a working environment which encourages people to be resourceful and responsible and to feel free to make suggestions and put forward ideas. The evolution of such an attitude depends as much on the management as it does on the workers. Creative organisations are the ones which actively encourage experimentation, which means they willingly accept a high level of failure, in order to achieve the successes”.<sup>29</sup>

The encouragement of risk taking is put even more strongly by Soichiro Honda, founder of the Honda Motor Company.

“Many people dream of success. To me success can only be achieved through repeated failure and introspection. In fact, success represents the 1% of your work which results only from the 99% that is called failure.”<sup>30</sup>

Bollard, in his small business research, identifies risk taking, and an aversion to it, in relationship to the starting of small businesses. Gilmour suggests that in Australia the fear of risk taking is also strong within companies/organisations and this inhibits creativity/innovation.<sup>31</sup> This risk aversion, of course, includes management being unwilling to share some aspects of decision making with workers. Risk aversion is culturally reinforced, by the 'culture' of the nation or of the firm.

In the past, instead of there being debate about the culture of a nation or firm, there has tended to be debate about more easily measured relationships, such as the links between creativity/innovation characteristics of a business and its size. These arguments, in tandem with concepts of economies of scale, have been particularly strong in the machinery sector.

“With regard to product innovation, there are some suggestions that although most innovation comes from large firms, small firm expenditure on research and development is more efficient. OECD statistics suggest that nearly half of industrial research and development expenditure is accounted for by 40 large firms. A survey in the United States estimated that small and medium-sized firms (fewer than 1,000 employees) were responsible for more than 40 percent of the major innovations there in the 1970s and that they produced four times as many innovations per employee in research and development than did larger firms. Another study in the United States down-played this apparently important role of small and medium-sized firms by analysing the innovations, and concluding that the major ones were products of firms with more than 10,000 employees and that the role of small firms in innovation is dwindling. More recently, an OECD study

stresses the essential role of small firms in innovation, particularly in the diffusion of new processes and products, and a need for greater support to small and medium-sized firms to reach their potential.”<sup>32</sup>

While size of firm is obviously important in formal R & D, (and in efficiency if economies of scale are important in the production process), many management consultants would now argue that an equally important issue is the culture of the firm (and the cultural context in which it works), and the shape of internal management structures (such as flattened hierarchies). The reshaping of internal structures to make companies responsive to changes in the marketplace is yet another aspect of functional flexibility. In analysing companies such as Apple Computers, as against traditional American multi-nationals such as Pepsi, Apple’s general manager sees the emergence of ‘third-wave’ flexible enterprises.

“Third-wave companies are the emerging form, not only for high-tech companies, but for all institutions. Simply put, the source of their strength lies in change — in the ability to transform their products and organisation in response to changes in the economy, in social habits, in customer interests. By contrast, the source of strength in industrial-age companies is “stability”. Everything about them is general to establishing stability — including their emphasis on title and rank rather than on making a difference, on structure over flexibility, on putting the institution’s needs before the individual’s.”<sup>33</sup>  
(Emphasis added.)

The third-wave companies in the United States, particularly in the high-tech areas of the economy, would tend to be non-unionised with a highly educated workforce. However, there are also positive examples of flexibility within traditional United States machinery sector firms, where there is high union coverage, and educational levels are nearer to the norm.<sup>34</sup>

This perhaps indicates that simple measurements of union coverage or educational levels within a firm tell little about its competitive position. If the culture, the shape of internal structures, and responsiveness to clients is important in companies, it will be just as important in unions. Many would suggest that voluntary unionism is a prerequisite to such change. It is likely that increased contestability among unions for members would make them more responsive to members’ demands but, within the existing compulsory unionism legislation, there appear to be examples of flexible union attitudes. In the machinery sector the Engineers’ Union seems to have taken a positive attitude towards creating flexible enterprises, particularly at New Zealand Steel, Nissan and Toyota (the Thames plant). This process has, however, required a considerable level of co-operation and consultation by both the employees and the management,<sup>35</sup> but these attitudes do not appear to be widespread across other areas of the economy.

Attitudinal barriers within unions to the unleashing of creative potential are difficult to measure, but there is some support to the view that unionism, in itself, is not a major barrier to change, according to a recent survey of 200 firms across the whole economy.

“Although several firms believed that unions represented a barrier to quality and productivity, we were unable to find any overall relationship between unionisation rates and productivity performance.”<sup>36</sup>

The survey analysed obstacles inside the firm to quality and productivity improvement, and recorded both management and worker resistance to change as barriers to increasing competitiveness. The survey also indicated that resistance is expected to decrease in the future and that it may be management resistance to change which is the main barrier to creating flexible workplaces.<sup>37</sup>

As expected, the survey found that resistance to change varies between firms and sectors. Although we have some idea of the socio-economic and ethnic characteristics of the self-employed, we have little similar information on the characteristics of both union and management people who show more creative and flexible thinking.

As with analysing the extent of unionism in a firm, the absolute levels of education of those in a particular firm only partly indicate the competitive potential of that firm. Of more interest perhaps is how well these skills are used, how well informed the employees are, and how involved they feel in the enterprise.

In describing industrial reform in Australia the Government there states:

“Change is likely to be accepted more readily where employees are well informed and can participate in decision making. A lack of information can result in uncertainty and resistance.”<sup>38</sup>

So what encourages more participative workplaces?

#### *Increased workforce participation*

“Powerlessness corrupts. Absolute powerlessness corrupts absolutely.”<sup>39</sup>

According to many writers, first and foremost it is the attitudes of management which encourage or discourage increased workforce participation. The attitudes of people in management are, of course, shaped by the outside cultural context. Bamber suggests that industrial relations in Australia and New Zealand operate in an adversarial context, compared to Scandinavian countries, West Germany and Austria, for example, which take a more consensual approach.<sup>40</sup> However, the development of a high productivity ‘culture’ in a firm (or in society as a whole) is not just a ‘top down’ process. A well educated, highly skilled and creative workforce is not only likely to be more receptive to new ways of adding value, but will encourage their use, and will ultimately require increasing involvement in the firm’s decision making process. Describing New Zealand Steel’s drive for improved productivity in an increasingly competitive international environment, the industrial relations manager states:

“... I predict that industrial democracy and employee participation at New Zealand Steel will continue to grow and find new forms of expression. This is because we have learned that it is a more effective and efficient way to manage our business in the much more competitive environment .... the New Zealand Steel workforce of 2,200 individuals possesses between two and six times the proportion of vocational, trades or university

qualifications as the New Zealand labour force as a whole. There is no doubt that this highly educated, skilled and trained workforce will increasingly reject autocratic management and continue to push for new boundaries of participation in management."<sup>41</sup>

Increased employee participation may also be fostered by enterprise bargaining, which puts workers and employers in direct contact with each other. However, particularly in small firms, enterprise agreements could lead to a more autocratic style of management with less employee participation.

New forms of employee participation are likely to include Boxall's policy-related participation. There is as yet little evidence of this occurring in New Zealand but there are many examples overseas, such as the worker industrial co-operatives of Mondragon and share participation schemes in Britain. In Britain at least, forms of productivity bonuses through share participation schemes have been shown to represent positive aspects of both functional flexibility and wage flexibility for both employers and employees.<sup>42</sup>

#### *Other factors in creating a flexible enterprise*

The creation of more flexible and market responsive enterprises in the machinery sector has focused on the need for more functional flexibility — in terms of breaking down artificial barriers both in the workplace and in society as a whole, and wage flexibility — in terms of linking rewards to skill and performance. There is also a need for greater employee/management commitment to the well-being of a particular enterprise. This tends to run counter to the more extreme forms of externalisation, external numerical flexibility and internal numerical flexibility. According to the OECD:

“Voluntary co-operation and active participation by employees in the enterprises cannot be maintained in the face of collective redundancies, authoritarian changes in shift-work or working hours or ‘externalisation’”.<sup>43</sup>

Negotiated change in these areas is likely to assist enterprises become more flexible and competitive. In analysing labour market issues the 1989 Report of the Ministerial Task Force on International Competitiveness gives suggestions as to areas which require further attention:

- utilisation of temporary labour arrangements in seasonal industries
- utilisation of shift arrangements and penal rates and their impact on particular industries should be examined by relevant companies and unions as well as government
- threshold and unpredictability of redundancy liabilities and the special requirements for temporary, seasonal or short-term employment situations
- extent of the impact of taxation and benefits as a disincentive to undertaking low paid employment.

The first three areas come under the labour market headings of externalisation, internal numerical flexibility, and external numerical flexibility. While there will be businesses within the machinery sector which would like to see more movement in these areas, these issues take on much more relevance in other sectors. For example, where there are seasonal shifts in employment such as in the freezing industry and the fruit industry, varying demand patterns such as in retailing or hotels, or rapid shifts in markets such as in the textile industry. In general, the freezing industry — a key area of the economy — provides a complete contrast to the machinery sector in its lack of movement in most areas of labour market flexibility. The inevitable outcome has been declining output, profitability and employment. However, a brief analysis of another industry with close links to the primary sector — textiles — shows that flexibility of attitudes and work practices can keep a 'sunset' industry vibrant.

## The textile sector

First, a comment on the wool industry in Australia.

"Let us look briefly at the wool industry to see how we might generate more wealth for the country by adding value to the product before we export it. Australia produces a significant proportion of the world's finest wool. Most of our wool — 95% — is exported overseas in its raw state or in the very early stages of processing. Once overseas, value is added to it as it is scoured and cleaned, combed, spun, dyed and then woven into cloth. The cloth is then used for manufacturing clothing or furnishings. A minute percentage of our wool is processed here into yarn or cloth. If it is woven into cloth here, in most instances, both the design and the machinery are imported. Our clothing and fashion industry depends almost entirely on imported cloth and imported designs. Australian scientists have also contributed significantly to the development of processes such as shrink-proofing for wool. Like our wool, these have been sold to overseas enterprises for them to capitalise on in their processing of the wool."<sup>44</sup>

The following table shows a comparison of wool and carpet exports in New Zealand over the last four years.

---

	Export Earnings year ended June (\$m)	
	Wool	Carpets and other textile floor coverings
1985	1475.4	102.9
1986	1281.4	107.2
1987	1566.9	81.6
1988	1621.8	81.3

Source: Department of Statistics

---

The table indicates the small proportion of wool which has a full, added value treatment (highly processed). Over the last three years the value of carpet exports has gone down, primarily due to volume effects, and the value of wool exports has risen, mainly through increased prices. In volume terms, currently around 3000 tonnes of wool go into carpet manufacture in New Zealand, but over 940,000 tonnes are exported raw or semi-processed. Once overseas, this wool is made primarily into carpets, using overseas machinery, and overseas designs, creating overseas employment, and is sold predominantly into the Chinese, American and European markets. New Zealand manufactured carpets are sold locally and to Australia, with a relatively small amount going to the United States. If the raw wool can be made into carpets overseas, and be sold into alternative markets, there is an opportunity to increase New Zealand carpet exports, but perhaps it requires a whole new outlook. Bollard describes how the low-cost woollen industry in England has been decimated, and he illustrates the characteristics of one of its successful competitors.

“This competition did not come from developing countries but from Prato, a town in northern Italy. The whole organisation of the woollen industry there is completely different from that which has been shattered in the United Kingdom, France, Belgium and Germany: Prato production comes not from large long-established mills but from small dynamic firms. The region, a traditional wool processing area where cloth has been woven since medieval times, had its industry totally disrupted by World War II. After 1945, it was rebuilt with Marshall Plan aid, and this post-war industry was built around many small operators working their own family’s spinning frames and looms, often at home, putting in long hours and producing wherever they could get the best profit out of the low grade recycled woollen rags that they then used for their raw material.

Today, the industry has become much more modern in equipment and work style, but the philosophy and approach remain the same. Approximately 46,000 Pratese work in the industry. There are a few big mills, but most production takes place in tiny workshops where from two to ten workers specialise in different parts of the cloth production process. There are about 10,000 of these tiny, privately owned firms. Workers are often given a share in ownership in order to encourage them to stay with the firm rather than splitting away and setting up their own workshops. They operate with small-scale but very modern equipment, the product of an extremely healthy local machine manufacturing industry. There are about 1,200 engineering firms in the region, mostly small, which make or repair equipment.

The fashion industry requires considerable flexibility, short runs and specialised production. This is made possible by the small Pratese firms and their attitudes to change, which may be summarised thus: not knowing what they will be making next week — only that it will be different from what they have produced this week — and that it will be necessary to fill the order in half the time that British mills take. The structure of the firms is not rigid; at any one time some are going out of business while others are setting up. As soon as a machine operator discovers some improved product or method, he is likely to branch out on his own to exploit it. If one of the larger mills makes cut-backs, its workers buy up the machinery and take it home to produce their own fabrics.

The key to this system are the *impannatore*, the merchants who take orders, commission designers and then divide up the work among specialist workshops, guiding it through its stages. They are not just middlemen but rather entrepreneurs, aware of changes in fabric fashions, what this means for the designs and how the new cloth should be marketed. They take big orders to gain economies of scale and then divide them up into sizes suitable for smaller workshops. There the capo-machino, the small workshop manager, is free to concentrate on technical excellence.

The industry has not been without its problems — it was founded in the black economy ethic, with firms avoiding social security and labour legislation, and with a bad record of environmental pollution — yet despite these negative aspects, the industry remains vital and dynamic, an example of small is beautiful in operation.

There are further plans afoot in Prato. A pilot scheme has been set up, supported by the local unions, the local authority and banks, to provide small firms with television monitors carrying information about market opportunities, labour availability, raw materials, prices and designs in the industry. This may be developed further to arrange contracts, to work out delivery dates, to organise pick-up routes for lorries and to implement a new computer-aided design scheme for the preparation of samples for the fashion market.<sup>45</sup>

The Prato example indicates that creative and flexible attitudes, combined with flexible technology, can create market niches, and that a successful textile industry can also have major spin-offs in other sectors — such as the machinery industry. The model also indicates some of the negative aspects of wholesale deregulation.

Despite the problems, the Prato example indicates the type of response expected from freeing-up regulations. The description of the Prato environment would indicate a high level of both internal and external labour market flexibility, yet it appears there is still some union presence. Many existing New Zealand textile companies would, of course, welcome such a level of flexibility. In discussing their Riccarton carpet operation, Feltrax note that:

“It will reach its potential when exchange rates become more favourable and there is an acceptance of work practices more attuned to today’s competitive environment.”<sup>46</sup>

Cavalier Carpets are also critical of labour market inflexibility and they indicate that the Government has not played the game entirely fair, particularly in their handling of industrial relations.

“If they are so keen on the free market why don’t they apply it to everything?”<sup>47</sup>

Much of the local business concern has been over the issue of costs of redundancy payments, when operations are subject to rapidly changing market conditions.

It is likely, however, that to foster a similar vibrant ‘added value’ textile industry such as Prato, would require more than simple deregulation of the labour market. There would be a need for a ‘culture’ which welcomed and supported new opportunities, a high degree of entrepreneurial spirit (and the necessary business skills to support the spirit), an increased ability to utilise information



and knowledge, particularly in the design and marketing areas, and an increased adaptability of both management and workers. Of course, within existing regulations there are already vibrant textile companies, but if more value is to be added to our raw fibre, be it wool, cashmere, or mohair, then more movement in attitudes is needed.

## Other sectors

The relationship between information and knowledge-based added value, combined with flexibility of attitudes, and which leads to employment creation, can also be seen in other industries. Even in the very traditional, highly inflexible meat industry, a new small entrant — Fortex — is showing that flexible attitudes of employers and employees, combined with creative marketing, can produce high value specialist lamb cuts for wealthy ‘yuppies’ in Hollywood restaurants. The opportunities for added value are limitless — perhaps the lamb could be served on New Zealand pottery, and enjoyed with New Zealand boutique wine served in a hand-blown personalised bottle with its own designer label. Low interest rates, a ‘helpful’ exchange rate setting, and low inflation could obviously greatly assist in selling such added value products, but inflexible and uncreative attitudes, linked to low skill levels, appear to be the more important barrier to the creation and expansion of enterprises.

“How we respond to the economic problems will be determined by how we perceive reality.”<sup>48</sup>

So how are perceptions changed? Many groups and individuals have views on how attitudes are changed. The Business Roundtable, for example, argue that enforced collectivism and protection of monopoly positions encourages inflexible and uncreative attitudes. New Zealand is moving out of a relatively long period of ‘protectionism’, for many groups in the economy, and in the short term often dramatic exposure to market forces has been needed to encourage flexible and creative attitudes. Deregulation of the transport sector provides many examples, such as Air New Zealand’s response to the arrival of Ansett New Zealand. At the same time, however, movements in attitudes can be encouraged in other ways.

“For years social scientists have said that humans resist change — and so they do. But they resist only those changes they do not understand, are suspicious of, or consider to be against their interests. Humans embrace change that seems good for them or good for the world they live in or care about.

A new idea or a new expectation, in itself, will seldom bring about change. On the other hand, change can be very attractive if it is the product of a new idea or expectation that appears to be in the best interests of the people who are expected to adopt it, if it is accompanied by the means for its fulfillment, and if it results in recognition and approval. To improve an organisation, we must introduce good ideas, establish the means for making them work, and provide a visible payoff for the effort involved.”<sup>49</sup>

How people react to the removal of enforced monopolies or, alternatively, how they react when exposed to ideas which seem to bring personal benefits, how they view self-employment, or how they see their role as an employer or employee, will also depend heavily on attitudes moulded early in life. Therefore, a more long-term starting point in the job creation process may be to look at institutions in which attitudes/perceptions are formed. Parents represent one important source of influence, the education system is another.

## Education and the adaptive workforce

“An emphasis on increasing technical skills is not necessarily going to equip young people with the sorts of skills they will need for their working lives. What we need is an education which recognises that creative thinking is an integral part of all disciplines — it is in fact the fundamental thing that has to be taught. Our tertiary education system needs to address itself to the challenge of producing people who can respond creatively to situations, whether they are business managers, engineers, artists or economists.”<sup>50</sup>

Another Planning Council publication, *Tomorrow's Skills*, tries to develop the links between changes in the structure of the New Zealand economy, changes in employment patterns and, ultimately, the changes in skill requirements.<sup>51</sup> Much of the focus is on the move (both historically and predicted) from primary and manufacturing employment to employment in the service sector and, closely related to this, the move from manual to non-manual work. In a more simplified form, the change is towards jobs which depend increasingly on the creative use of information and knowledge. In the wider context, the OECD link this to the on-going process of education.

“[I]t is widely argued that many jobs involve more work with information than they used to. The manual craftsman is faced with a wider range of types of materials, and processes for using or transforming them than in the past. There is increasing use of computer numerical control in production processes. Stock control in retail and wholesale firms is increasingly automated. Other occupations appear to have become more “theoretical” or “scientific” and require a better grasp of theory and abstraction than when they relied more on practical know-how: this is the case in agriculture just as much as in some service occupations such as health care. To the extent that service jobs do involve direct contact with people, there is a greater emphasis on interpersonal and social skills; less authoritarian work structures in many occupations make human relationships more important than they were in the past. Conversely, however, work with things (objects, machines) seems to be less important both in terms of the overall shift from manufacturing to services, and also the changes within manufacturing processes, where individually-acquired craft skills (for example in maintenance work) are being supplanted by technologically-based production systems involving flexible work teams. Thus the traditional craft demarcations, strongest in occupations such as ship-building and other heavy industry, seem to be giving way to the need for a more flexible multi-skilled workforce. Production, innovation and learning all become intertwined.”<sup>52</sup>

This implies that a successful internationally competitive economy will increasingly depend on a workforce which has a sound education base, with attitudes that support a continuing process of learning, both formally and informally, and with positive attitudes towards change. As discussed, this learning will need to be increasingly focused on information and knowledge-based skills. The Australian Government publication, *Skills for Australia*, takes a similar approach and suggests that:

“The pursuit of more dynamic skills formation will allow Australian manufacturing and service industries to compete on grounds of quality and reliability, which provide the leading industrial economies with much of their advantage on world markets.”<sup>53</sup>

*Tomorrow's Skills* and an earlier Planning Council publication, *Our Education and Training Choices—Post Compulsory Education and Training in New Zealand*, argue that the New Zealand workforce, in terms of formal education, is not well placed to take up the challenge of the information and knowledge-based economy. *Implications for Maori Development* argues that currently Maori are even more badly placed in terms of both education and location in industry and occupation.<sup>54</sup>

So what has created this overall situation? Is it resource constraints or cultural attitudes towards education? Or perhaps the education system helps define cultural attitudes? The OECD argue that:

“Some of the most important effects of education are its less overt influences on values, attitudes and norms: on the *culture*, the way of life. The importance of this aspect of education has been suggested by both educationists and economists. Educationists have pointed out that the formal curriculum is only the visible part of what is taught, and have explored what has come to be called the “hidden curriculum” of courses and institutions: those implicit messages which are embodied and transmitted in what is taught and how it is taught. Such messages can affect attitudes to study, to work, and to different kinds of work, influencing for example the perceived status of different occupations or job roles. Economists, likewise, have pointed out that formal labour contracts are inherently incomplete, and that workers always have a hidden element of “discretion” in how they work. Such discretion is influenced by individual attitudes and group norms. This points to *the importance of cultural variables in economic performance*, although the nature and impact of such variables tend to remain speculative.”<sup>55</sup>

The ‘culture’ of our learning institutions, like the ‘culture’ of our workplaces, is therefore of interest. Most such institutions have been part of the ‘sheltered’ sector of the economy, with almost all their focus being on expenditure rather than on areas such as income generation or thinking of ways to attract clients. In addition, there is little movement of educators between the business sector and the education sector, so it is likely that an ‘enterprise culture’ would not be naturally developed within these institutions.

The links between education and the economy have also not been made explicit in the 1987 Curriculum Review, or in the resulting draft National Curriculum Statement. In the past, making such explicit links may have been viewed as vocationalism, but increasingly the skills needed in flexible, creative enterprises are those also needed to live a rewarding and satisfying life in wider society.

In Australia there have been a number of attempts to break down artificial barriers between the education system and industry. At the school level this has included work by the Curriculum Development Centre in Canberra, who have organised conferences combining industry and educationalists, and have a number of on-going combined projects.<sup>56</sup>

Despite the general lack of links between educationalists and industry at individual schools in New Zealand there are, however, some good examples of endeavours to foster entrepreneurial attitudes/business skills — such as the Palmerston North Girls' High School enterprise programme.<sup>57</sup>

Gawith extends this argument about culture in learning institutions, by suggesting that because of poor information management within the institutions, they are not in an ideal position to pass on information management skills to students.<sup>58</sup> With the view that increasingly New Zealand's economic wellbeing depends on the effective use of information and knowledge, this lack of an information culture in learning institutions could be of particular concern.

But it is not just entrepreneurial attitudes or information skills which need to be fostered if we are to have a creative, adaptive workforce. In discussing education nearly a century ago, Bertrand Russell suggested that

“the primary goal of education is to elicit and fortify whatever creative impulse Man may possess.”<sup>59</sup>

Noem Chomsky goes on to argue that the education system should

“provide the soil and the freedom required for growth of this creative impulse; to provide in other words, a complex and challenging environment that the child can imaginatively explore and, in this way, quicken his intrinsic creative impulse and so enrich his life in ways that may be quite varied and unique.”<sup>60</sup>

This general philosophy fits well with the range of generic skills the New Zealand Planning Council is suggesting need upgrading.

Russell's education philosophy, backed by a high level of the suggested generic skills, should assist in the formation of a flexible, adaptable and creative workforce. The formation of such skills must, however, not rely only on initial training but there must be continuing opportunities for retraining and upgrading of new skills. Recognition of the place of on-going training in improving quality and operating efficiency within the workplace is clearly shown in the recent productivity survey of 200 firms, where staff training is seen as one of the top two strategies for change in both the past five years and in the next five.<sup>61</sup>

With the current restructuring of education, at both the compulsory and post-compulsory levels, there is considerable opportunity for improvement. If we have an idea of the skills/attitudes required by both workers and management to create flexible enterprises, we can have a better idea of the changes required to make the education system more responsive to the needs of individuals and, ultimately, the economy as a whole.

## Conclusion

The creation of new, sustainable, high wage, private sector employment is a complex process. This discussion has attempted to examine some of the factors relevant to this process, and it indicates that no one factor — such as reducing real wages — dominates. It does, however, indicate that in order to create successful enterprises there needs to be a high degree of creativity, flexibility and adaptability amongst both management and workers, and that increased levels of communication, participation and education are likely to assist this process. In order to increase communication, participation and education there needs to be considerable attitudinal change across the whole of society. As discussed, it is open to debate as to how to foster this change. Further easing of regulations/restrictions in the labour market may force some people to change in positive ways, so the amendments to the 1987 Labour Relations Act need further analysis and discussion. It is also clear, however, that some groups have made considerable progress within existing legislation. An equally positive line may be to examine the characteristics of groups and individuals who have accepted or fostered positive changes, and endeavour to learn from those role models.

## References

1. Research projects at the enterprise level include work by the New Zealand Institute of Economic Research/Institute of Policy Studies (see reference 36), Mike Moore's international competitiveness study, another international competitiveness study by the Auckland University Graduate School of Business, and a survey by the Trade Development Board.
2. Reich, Robert (1987), *Tales of a New America*. New York Times Books.
3. Douglas, Ken (1989), *Industrial Democracy: Trade Union Perspective*. Industrial Democracy seminar, May, Auckland.
4. Bascand, Andrew and Clements, Robin (1989), "The Effect of Restructuring on Employment: 1985-89". *Reserve Bank Bulletin*, June Quarter, Vol. 52.
5. Working Party on Industrial Relations (1989), *Internal Labour Market Flexibility*. OECD.
6. Bollard, Alan (1988), *Small Business in New Zealand*. Allen and Unwin/Port Nicholson Press.
7. Levett, Allan (1988), *Social Change and the Welfare State*. Royal Commission on Social Policy, May.
8. Franklin, Harvey (1985), *Cul de Sac*. Unwin Paperbacks/Port Nicholson Press.
9. Atkinson, John (1985), "Flexibility: Planning for an Uncertain Future". *Manpower Policy and Practice*, Vol 1, Summer.
10. See 6.
11. Department of Scientific and Industrial Research (1988), *Current State of Electronics Manufacturing in NZ*.
12. Database of the OECD Scientific, Technology and Industrial Indicators Division.
13. Haines, Lesley and Callister, Paul (1989), *Tomorrow's Skills*. New Zealand Planning Council.
14. New Zealand Manufacturers' Federation (1988), Survey of Research and Development.
15. Nora, John et al (1986), *Transforming the Workplace*. Princeton Press, New Jersey.
16. OECD (1988), *Economic Studies*. No 10, Spring.
17. Gilmour, Jane (1988), *Culture, creativity and productivity - An exploration of the role of creativity in Australia's future*. Creative Australia Project, Commission for the Future/Australia Council, November.

18. Peters, Tom (1988), *Shape of the Winner*. Video.
19. Dordick, H. (1987), *Information Technology and the New Zealand Economy*. Victoria University Press, Wellington.
20. Comments by Barbara Lepani, Program Manager, Centre for Technology and Social Change, University of Wollangong, Australia, at "Creative Australia" seminar, Sydney, November 1988.
21. Poulsen, Anne and Hill, Martin (1989), *Marketing Magazine*. New Zealand, February.
22. See 17.
23. See 5.
24. See 20.
25. Franklin, Harvey (1989), *Small is a Privilege*. Presentation to New Zealand Marketing Conference, Rotorua.
26. For example Economic Monitoring Group (1986), *Labour Market Flexibility*. New Zealand Planning Council.
27. Owen, Bruce. Industrial Relations Director, Nissan New Zealand.
28. Boxall, Peter (1989), Industrial Democracy: Some Scenarios for New Zealand. Industrial Democracy seminar, May, Auckland.
29. See 17.
30. Peters, Tom (1988), *Thriving on Chaos*. Alfred A. Knopf, USA.
31. See 17.
32. Dwyer, M., Rose, D., Sowman, R. (1985), *Self-employment and Small Business*. New Zealand Planning Council.
33. Sculley, John (1987), *Odyssey - Pepsi to Apple*. William Collins Sons and Company Ltd, London.
34. See 15.
35. Mirkin, Rick (New Zealand Steel) *Joint Consultation - Perspectives on its Usefulness*. Denny, Peter (Assistant District Secretary, Auckland Branch, NZ Engineers Union) *Consultative and Co-operative Agreements - Their Usefulness to Develop Change*. Industrial Democracy Seminar, May 1989.

36. Campbell-Hunt, Colin et al (1989), *Productivity and Quality in New Zealand Firms: Effects of Deregulation*. New Zealand Institute of Economic Research Monograph 46, Institute of Policy Studies, Studies in Productivity No 1, March.
37. Campbell-Hunt Colin (1989), Resistance to Change seminar, Victoria University, August.
38. Department of Industrial Relations (1988), *Labour Market Reform - The Industrial Relations Agenda*. Canberra.
39. Kantes, Rosabeth Moss, Harvard Business School.
40. Bamber, G. (1989), *Flexibility and Codetermination: International Perspectives on worker organisation and employee participation*. HRM Conference, Auckland, April.
41. Mirkin, Rick (Industrial Relations Manager, New Zealand Steel Ltd) (1989), *Industrial Democracy and Employee Participation - The New Zealand Steel Experience*.
42. Bell, D. Wallace, and Hanson, Charles G. (1987), *Profit Sharing and Profitability*. Kogan Page Ltd.
43. See 5.
44. See 1.
45. See 6.
46. *New Zealand Financial Review*, June 1988, P.16.
47. *National Business Review*, November 30, 1988.
48. See 17.
49. Kepner, Charles H., and Tregoe, Benjamin B. (1981), *The New Rational Manager*. Kepner - Tregoe Inc, Princeton, New Jersey.
50. See 17.
51. See 13.
52. OECD (1989), *Pathways for Learning - Education and Training from 16 to 19*.
53. See 38.
54. Callister, Paul (1989), *Implications for Maori Development: Economic and Sectoral Trends to 1997*. New Zealand Planning Council.



55. See 52.
56. Cumming, James (Ed.) (1988), *Curriculum and Work: A Joint Enterprise*. Curriculum Development Centre, Woden, Australia.
57. *Dominion Sunday Times*, July 3, 1988.
58. Gawith, Gwen (1989), *Information Education: The Great New Zealand Vacuum*. Unpublished paper, Wellington.
59. Corson, David (Ed.) (1988), *Education for Work - Background to Policy and Curriculum*. Dunmore Press, Palmerston North.
60. See 59.
61. See 36.

## Appendix

### Alternative Employer Strategies on New Technology and Their Consequences for Labour Relations Practice

Competitive strategy	Low wage/High volume	High wage/High quality
	Compete internationally on basis of low labour costs and high volumes of output	Compete internationally on basis of high product quality and technological sophistication
Employment relationships	Development of secondary labour market conditions: part time and contract workers; limited job security; few opportunities for training and advancement	Development of primary labour market conditions: high wage, high productivity employment; job security; skills development and investment
Management style	Preservation of sole prerogative over strategic decisions. Emphasis on workplace control and supervision	Stress on need for employee participation in decision-making on new technology
Use of new technologies	To eliminate labour content; deskilling; strengthening of managerial control	To create strategic competitive advantage
Labour relations emphasis	Increased labour-management conflict; traditional demarcations and protective practices; redundancy agreements and voluntary severance systems	Teamwork; cooperation and commitment to the enterprise; flexibility in job content; new wage payment and compensation systems: eg, gainsharing, employee shareholding; training and knowledge compensation systems
Long-term consequences	Loss of competitive position to lower labour cost producers in developing countries; greater incomes inequality; employment insecurity	Increased employee support for new technology; increased ease of introduction of new technology; greater competitiveness of firms

NZPC  
October  
1989