Who gets their hands ‘dirty’ in the Knowledge Society?

Training for the skilled trades in New Zealand

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Who gets their hands 'dirty' in the Knowledge Society?

Training for the skilled trades in New Zealand

by N.A. Murray

The vision of New Zealand as a 'knowledge society' is a mantra that has opened the twenty-first century. Underpinning any 'knowledge society', however, are people who turn resources into concrete products and who build, maintain and service the technological and social infrastructure essential to society. This thesis examines the skilled trades and, in particular, how people are trained for those trades. Industry training is a crucial component of the wealth-generating capabilities of New Zealand. It is also an essential part of the way that many young people make the transition from school to work and from adolescence to adulthood. The means of training tradespeople has moved over the years from the rigid and prescriptive apprenticeship system, to the more voluntaristic, industry-led 'industry training' strategy, introduced following the Industry Training Act 1992. Regardless of the system used to organise training, however, there have been long-standing problems in New Zealand with achieving the optimum number of skilled workers, possessing the correct 'mix' of skills required.

In this research, based upon semi-structured interviews with industry training stakeholders, four industry case studies, policy content analysis and an in-depth examination of the Modern Apprenticeships scheme, I ask three key questions. First, what are the things that, as a country, we could or should reasonably expect a 'good' industry training system to contribute to? These may be things like: an adequate supply of appropriately skilled workers, the ability to upskill or reskill those workers as needed, clear transition routes for young people, lifelong learning opportunities, equity goals and foundation skills. Second, I ask how the current system performs against these criteria. The short answer is that the
performance is ‘patchy’. There are dire skill shortages in many areas. While opportunities for workplace upskilling, reskilling or ‘lifelong learning’ are available, I argue that they are not yet cemented into a ‘training culture’. Workplace-based learning is an important transition route for a small percentage of our young people but the favoured route is some form of tertiary education, which may be an expensive and not necessarily relevant option. Third, I ask why the performance of New Zealand’s industry training system is often less than desirable. My argument is that the problems, and solutions thereof, of skill formation in New Zealand have been understood largely in terms of the supply-side. That is, we have either critiqued, or looked to reform, whatever system has been in place to train skilled workers. The inadequacy of this approach is evident from weaknesses in the ability of either the prescriptive apprenticeship system or the voluntaristic industry training strategy to deliver an appropriately skilled workforce. Thus, I also examine the demand side of skill formation: the wider influences that impact on employers’ training decisions. Training decisions made by individual employers, the aggregation of which represent the level and quality of training for New Zealand as a whole, are influenced by a plethora of factors. At the micro level of the employer or firm, I explore barriers to training and some of the constraints to the demand for skills. I then examine broader influences, such as the changing shape of the workforce, labour market regulation and wider economic factors, all of which impact on training levels.

**Key words**

skill; apprenticeship; industry training; vocational education; human capital; skilled trades; youth transition; skill shortages; regulation approach; post-Fordism; New Zealand; occupational status; education and training; engineering industry; electrical industry; hairdressing industry; agriculture industry; Modern Apprenticeships; human capability framework; political economy.
PREAMBLE AND ACKNOWLEDGEMENTS

Preamble
When I tell people that my research subject is industry training in New Zealand, generally there is one of three reactions: a gentle glazing over of the eyes (often from academics, it must be said!); a brief 'but isn't apprenticeship dead?'; or a long and passionate tirade about the importance of training, both to New Zealand's economy and to our young people. The third response is the closest to my heart, of course, and many of the intuitive comments that people have made in that vein have informed this thesis and, indeed, have often been echoed (in slightly less colourful language) in the theoretical perspectives that I have chosen to examine the topic.

My research journey began when, in 1998, I saw a footnote in a journal article that I was reading for an undergraduate paper, which noted that there had been little academic work on apprenticeships in New Zealand (Boyd & Olssen, 1988). This suggested a possible Masters topic, and the suggestion eventually became a reality. But the academic interest was always supported by personal inclination. I am a mother of three, so the transition paths that my children will take from school to (hopefully) employment, and from adolescence to adulthood, are naturally of great interest. I am kept in gin and gems by an electrical business run by my husband and his partner. The apprenticeship that my husband served was a seminal part of his life and the ethos instilled in him during those days has stood him in good stead. His firm has a strong commitment to training, continuing indeed to take on apprentices during some very lean times in the early 1990s. Finally, many of our friends are tradespeople, and there has been many a lively discussion around our kitchen table about apprenticeship (and the perceived lack thereof).

One tale, indeed, sums up much of what this thesis about. The son of friends, a fine young lad, was unable to enter his first-choice trade as his school marks were not high enough. He found a job in joinery factory, essentially as a machinist. His parents, however, were keen for him to work towards some joinery qualifications. Such courses were available at Christchurch Polytechnic, so the lad enrolled in an evening course, to be undertaken in his own time, at his cost. As a courtesy to the employer, he asked if this was acceptable, and was told, grudgingly, that it would be alright, providing the lad
did not expect any more money, and did not tell any of the other workers what he was doing. Of course, this is a one-off incident, but it provides a salutary contrast to the currently all-pervasive rhetoric of the ‘knowledge economy’ and ‘lifelong learning’.

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I would like to thank the many people who have helped me in one way or another with this thesis. I thank Lincoln University for the academic and financial support that I have received over the course of my studies. My postgraduate work has been encouraged and facilitated by the multi-disciplinary nature of Lincoln and by the warmth and personal interest of many of its staff. I thank, in particular, Rupert Tipples and Paul Dalziel. I also thank the staff of the Environment, Society and Design Division, in particular, Stefanie Rixecker for her wise and enabling leadership, Evert Kampert for being a ‘whiz’, and Douglas Broughton for always knowing what to do and for being the calm eye at the centre of the storm.

I thank the Foundation for Research, Science and Technology for awarding me a ‘Bright Future’ scholarship, which has made life much easier. The conference component of the scholarship has been especially valuable. I thank Tim Harrison, Shane Stuart, Peter Benfell and Lana Timperley, all from the Foundation, for their support and kind interest (even though I’m not much of a ‘young scientist’!).

I would like to thank the staff of the Industry Training Federation. Carrie Murdoch was my ‘gate-keeper’ to the Federation and during her time there provided me with a wealth of information and contacts. Paul Williams, and more recently Darel Hall and Rachael Curson have all been supportive and interested in my work.

Gemma Piercy, of Waikato University, has provided me with a conduit to theorists and ways of thinking about industry training that have greatly enriched my work. I thank you, Gemma, for your friendship, your knowledge and for your unbounded enthusiasm and passion for the subject.

The camaraderie and support of staff and fellow postgraduates at Lincoln University has been an essential component of my work over the last three years. Chrys, David, Deb, Jason, Jude, Kay, Lesley, Marion, Pat, Simon and Suzanne, and all those who have inhabited the ‘dark tower’ or the ‘tin shed’ over the years, I thank you for the support,
the intellectual challenges and the laughter. Two people deserve a special mention. Jim McAloon, friend and mentor, and Lucy Baragwanath, friend, mentor and 'Treasured' beach buddy – both of you have inspired, supported and challenged me.

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My friends have been sounding boards and a wonderful ‘support-crew’; thank you all. I thank especially Gail Woods, who, when it’s all been too hard, has reminded me of the ‘essence’ of what I’m trying to do (it’s your turn now, girl!) and Sharon Barnard who, despite refusing to actually write my thesis while I do the dusting for her, has endured my whingeing, has come up with just the right word on several occasions and has stopped the Murray family from descending into the mire.

To my family; thank you for your love, patience and support. To my ‘girlies’, Bridget, Caitlin and Hannah, yes, you may use the computer now, and to my best friend and husband, Steve – thank you for believing in me and for allowing me the space and time to indulge my curiosity. I dedicate this thesis to Freda and Tim, my parents: thank you for the many dinner-table ‘discussions’, for giving me a love of learning, and for always being so proud of me.
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The information revolution isn’t going to do us much good if we can’t get our plumbing attended to (Shannon, 1994, p.8).

The vision of New Zealand as a ‘knowledge society’ is a mantra that has opened the twenty-first century. The vision of the unquestionable innovative and entrepreneurial skills that many New Zealanders possess being polished and packaged and sold in the global market place is extremely seductive. To add value to all that is produced; to strive for a high-income, high-employment society; to ride the wave of exponential technological change, these are all admirable goals. But underpinning any ‘knowledge society’ are people who turn resources into concrete products and who build, maintain and service the technological and social infrastructure essential to society. This thesis examines the skilled trades and, in particular, how people are trained for those trades.

Industry training is a crucial component of the wealth-generating capabilities of New Zealand. It is also an essential part of the way that many young people, traditionally mainly males, make the transition from school to work and from adolescence to adulthood. The means of training tradespeople has moved over the years from the rigid and prescriptive apprenticeship system, to the more voluntaristic, industry-led ‘industry training’ strategy, introduced following the Industry Training Act 1992. Regardless of the system used to organise training, however, there have been long-standing problems in New Zealand with achieving the optimum number of skilled workers, possessing the correct ‘mix’ of skills required.

These difficulties have been exacerbated in recent years with “profound” changes to “technology, work and work organisation”, which Marginson (2000), an Australian commentator, argued have equally profound implications for skill formation (Marginson,
In summary, Marginson delineated six interrelated elements of change: globalisation (an admittedly laden term); international competition as a driver of productivity-enhancing technological change, especially in information and communications technology; technological change as a driver of changes to the composition of the workforce; immense but uneven changes in work organisation; an increase in non-standard work; and growing polarisation of incomes (Marginson, 2000).

The oft-repeated call for New Zealand to develop a high-skill society is part of an emerging international consensus, prompted by the changes outlined above, which holds that the “salience of a nation’s education and training system is becoming the key item in the struggle for competitive superiority” (Ashton & Green, 1996, p.1). Behind the indisputably seductive rhetoric, however, is the reality that merely increasing the amount of skills training is insufficient to deliver those high skill levels. Ashton and Green (1996, p.6), using comparative international research, set out the national institutional requirements which are present in countries that could be characterised as having a “high-skill route to accumulation”: the ruling elites must be committed to the high-skill route; the majority of employers must be committed to both demanding a highly-skilled work force and providing the means for skill acquisition on the job; there must be an adequate regulatory system to control the quality and quantity of workplace training; there must be sufficiently comprehensive incentives for virtually all young people and workers to acquire (and continue to acquire) skills; and the education and training system must be sufficiently developed to allow a mix of on and off-job training (Ashton & Green, 1996, p.6).

There is little question that New Zealand is a long way from fulfilling any of these criteria. It could be argued, in fact, that New Zealand actually aims to be a ‘just-enough’ skill society: employers train to meet their specific and immediate needs, anything more is viewed as wasted or open to poaching; the state’s spending is always piecemeal, constrained by competing demands and pressure to keep the tax rate low; since 1992 we have swapped many elements of a ‘regulatory system’ for the vagaries of the market; and at the individual level, the notion of the ‘training culture’ is still to take hold.

In light of these factors, this research examines and critically assesses current industry training provision and policies, focusing on intermediate level skills. It is a pertinent time
for such work, following the introduction in 1999 of the Modern Apprenticeships programme, the 2001 industry training review, and the potential impact of the Tertiary Education Commission, which came into being on January 31, 2003. The development of industry training policies resulting from these measures is monitored, and assessed against the realities faced by the stakeholders in industry training face. The extent to which the resulting initiatives are likely to reverse the ‘just-enough’ skill culture is also examined.

In this chapter, I provide the background to this research. I then set out the questions that have structured the research. It is important to note that this structure has evolved as the research proceeded, the result of grappling with the need to place essentially pragmatic, grounded empirical data into some sort of theoretical framework. I then explain my choice of methods and provide a definition of ‘industry training’, describe the research process and set out the conventions used. Finally, I preview the shape of the thesis.

1.1 Background to the research

This research is a continuation of my Masters thesis, which was a history of apprenticeship in New Zealand (Murray, 2001). That work, aspects of which are summarised in Chapter Three, identified several themes that have underscored skill formation policies in New Zealand: the difficulty of securing an appropriately skilled workforce; the seemingly intransigent divide between the academic and the vocational; and the ongoing debate regarding the role of the state in skill formation. I now discuss each of these themes in greater detail.

Skill levels

It has been the aim of every government in New Zealand’s history to facilitate a skilled workforce (either through state intervention or by ‘clearing the way’ so that the market can perform), but this laudable aim seems to be constantly thwarted. The factors that stand in the way of achieving a skilled workforce are sometimes not within the government’s control but even when they are, it seems to be very difficult to achieve the correct policy recipe required to obtain the right mix of skills, at the right time, at an acceptable price.
Skill formation has become more problematic with the sweeping changes to the nature of work, the composition of the workforce and societal expectations.

One of the major impediments to skill formation is that it can be an expensive and risky endeavour. Historically, the question of who should pay for training was answered with a finely-tuned arrangement between employer and apprentice. The cost to the employer of an unproductive young apprentice was balanced by the older apprentice’s ability to carry out the work of a tradesperson, while still only being paid apprentice wages. Economic and social changes, however, upset this balance, and as the role of the state increased and (especially in New Zealand) industrial relations muddied the transactions, the apportioning of costs and benefits became rather opaque. As the formal educational component of apprenticeship increased, costs alternated more between the employer and the state, with the apprentice ‘paying’ implicitly with a discounted wage during the term of the apprenticeship. Recent developments, however, have seen the trainee expected to contribute a greater share, as pre-apprenticeship courses become more common. Part of the rationale for the introduction of an industry-led training system in 1992 was, in the spirit of the neo-liberal ‘user-pays’ ideology, to shift more of the cost of training to employers. That was not successful and there now appears to be recognition that there is a significant public good to be gained from industry training, making a state contribution both necessary and acceptable.

Nonetheless, the notion of training as an investment, rather than a cost, has not gained a lot of currency in New Zealand. Despite the rhetoric of employer organisations (and the undeniable initiatives of some industries and individual employers), the main imperative for most employers has been to pay for the least amount for training that they can. This has impacted on the quality, quantity and continuity of training over the years. Historically, there was resentment from some employers at having to contribute (through paying apprentice wages or directly) to the formal component of apprentice training. Apprentice intakes fluctuated in direct correlation with economic conditions, with many employers seeming to see little contradiction in contracting training in tight economic conditions and then complaining that they were unable to get skilled staff when the economy recovered. One of the constant excuses for not training apprentices was the problem of ‘poaching’.
There has been also a tendency to blame the apprenticeship (or industry training) system for shortages of skilled workers. Historically, there were difficulties inherent in the system, such as the time-span required to train, the tension between the theoretical and the practical aspects of learning and the generally conservative nature of the system. There were also difficulties caused by abuse of the system: employers using apprentices as cheap labour and neglecting comprehensive training; apprentices not complying with educational requirements; and educational institutes taking advantage of captive students and failing to ensure the relevance of educational material to the industry, for example. It is, however, a long reach to blame a training system for skill shortages when they are clearly more often caused by wider economic factors, the reluctance of employers to train, or by sweeping technological changes that would try even the most flexible of training systems.

The great academic/vocational divide

Another recurring theme throughout my earlier research was the tension between educationalists and industry. There was a deep-seated distrust of those organising the theoretical side of apprenticeship training from those in the ‘world of work’, expressed in many ways: a contempt of book-learning and ‘office wallahs’; resentment of any perceived interference in industry matters by those in the ‘ivory towers’; disapproval of ‘liberal studies’ being taught during time paid for by the employer, and so on. The discourse surrounding the tension was revealing: it was structured around the ‘practical, hands-on bloke’ being constrained and meddled with by ‘airy-fairy teachers who have no knowledge of the real world’. Conversely, there were (expressed less often and more mildly) the views of the educators: a sense of frustration with the conservatism of many of those in industry and with their inability to see the ‘big picture’ of skill formation, and not just the needs of their particular workshop.

The increase in the formal education component of apprenticeship exposed the contradictions contained in this debate. Apprenticeship, and being a tradesperson, is firmly associated in New Zealand with being ‘practical’ and not strongly academic. This association has raised three problems over the years. First, it has contributed to the low status of the trades. Second, the increasing technical requirements of some trades have meant that a greater degree of academic ability is required. Finally, while the prestige of
'having a trade' is still strong in some sectors of our society, the association of 'being a tradesperson' with 'being less academic' may be a barrier to some young people who have contemplated beginning an apprenticeship and it may mean that it is not even considered by others.

One of the paradoxes of apprenticeship over the years was the lower scholastic achievement level of some apprentices, while at the same time others did not complete their training as they were insufficiently challenged by the work. Over the past few decades, higher levels of unemployment and fewer job opportunities combined to raise the benchmark for entry to apprenticeship in some trades. Thus, a cohort of young people who would traditionally have entered a trade (and become exemplary tradespeople) is often excluded because their school or pre-apprenticeship course marks were not good enough. All these factors combine to impede the development of an appropriately skilled workforce, in which ability and interest correlate sensibly with occupational choice.

The role of the state

The final theme arising to be discussed is the role of the state in organising apprenticeship. Clearly, this is connected with the preceding issues; the state in New Zealand was always to some degree involved in apportioning the cost of apprenticeship training, in the organisation and administration of apprenticeship and in the provision of post compulsory education. With the implementation of the Industry Training Act in 1992, however, the market was given a greater role in skill formation in New Zealand, in keeping with the broader neo-liberal ethos of the time. The tensions and difficulties arising from this were discussed in the final stages of my Masters thesis and will be evident in much of this thesis.

There are three reasons why state intervention may aid appropriate skill formation. First, the state is able to take a broader view of the costs and benefits of skill formation and therefore the notion of efficiency can be widened to include, for example, the social benefits of having young people in training rather than on income support. Second, the state can (to a debatable extent) consider the benefits from skill formation for both worker and employer and, finally, the state is able to take a longer-term view than either firms or individuals (OECD, 1993, p.43).
Booth and Snower (1996) cautioned, however, that “it is naïve to suppose that wherever the market fails, the government can be relied upon to put it right” (Booth & Snower, 1996, p.10). Government policies may fail through the self-interest of bureaucrats or their vulnerability to strong lobby groups. The state is not necessarily a more efficient provider of training than the private sector: it may be isolated from the needs of firms, or constrained by a self-imposed regulatory structure; training is an expensive commodity to justify to taxpayers; and politicians are influenced by the need to be re-elected (Booth & Snower, 1996). In short, market failures do not necessarily indicate that government intervention is appropriate or, indeed, advisable.

Streeck (1989) also warned that the state is not always the best provider of skills training: “the state provision of industrial training is neither attuned to the dynamics of the training process nor conducive to the kind of skills that are needed for successful upward restructuring” (Streeck, 1989, p.98). The reasons given for this are that first, many young people have had enough of the formal school setting by the time they begin training for a job. Second, many skills are more effectively learnt by ‘doing’ them in the reality of the work place. Finally, industrial training is not just the acquisition of manual or mental skills but it is also... a process of socialization in work-related values, in a culture and community of work in which extra-functional skills like reliability, the ability to hold up under pressure, and solidarity with others working at the same tasks are highly regarded and rewarded. To internalize value orientations... people need role models;... work-related skills and orientations are acquired not from professional teachers but from more experienced peers in a place of work where technical competence can be blended into, and transmitted together with, attitudinal discipline and diligence (Streeck, 1989, p.98).

Streeck thus argued for the integration of education and training, but placed this integration firmly in the world of work: “enterprises... have to become places of learning in addition to being places of production” (Streeck, 1989, p.99; emphasis in original).

In the New Zealand context it would be hard to imagine a situation where either the state or the market would be handed the complete responsibility for organising industry training. The problem seems to be rather one of working out the most efficient and equitable balance
between state and market provision. The optimal organisation of industry training can be thought of as occurring at two levels.

First, there is a need for some mechanism to determine the type of skills that are needed, and the number of people required with those particular skills. Neither the state nor markets have been particularly successful at this. Historically, there were many and various attempts at 'manpower' planning by the state and industry bodies. One of the main rationales behind the changes in the early 1990s was the notion that an industry-led system would prove to be more responsive to changing skill requirements (both quantitative and qualitative). Yet, neither state planning nor market signals have been able to deal with the vagaries of seasonal or cyclic fluctuations in skill demand and supply. The over-riding pattern in New Zealand, matching economic cycles, has been that of skill shortages, when training expands, followed by short periods of a tenuous equilibrium, followed by oversupply and declining workloads, when training contracts. Then, as the economy expands again, there are howls of protest at the lack of skilled workers. As Keep (2002) argued (albeit in a British context): "practical experience suggests that whatever the apparent logic and efficiency of balancing employer demand with the supply of suitable qualified applicants, most employers like there to be a surplus of skilled labour from which they can choose" (Keep, 2002, p.465).

Second, once the variety and quantity of skills required have been established, there is a need for the delivery of that training. When the state was the main provider of industry training, it was roundly criticised for being sluggish, unco-ordinated and inefficient. Training organised by the state, however, was generally consistent and accessible. When training was opened to market forces, and organised on a voluntaristic, user-pays basis, training often stopped altogether, or became fragmentary, exclusive and of variable quality. Competition certainly provided opportunities for innovative courses to be established and for a greater degree of responsiveness to demand. The notion of 'demand', however, remained problematic, with the expansion of popular (if not necessarily useful) courses, while other occupational areas languished without structured training.

Following the election of the Labour/Alliance Coalition Government in 1999, there has been an attempt, at least at the level of policy rhetoric, to adopt a more 'third way'
approach to skill formation, a balance between the (ostensibly) ‘prescriptive’ state and ‘voluntaristic’ market models. Initiatives such as the Modern Apprenticeships programme, which funds co-ordinators to support employers and mentor young apprentices in selected industries, purportedly provided a ‘gentle steering of the ship’, signalling, via funding and support, the direction which the Government wished the market to take.

1.2 Research questions

Although my Masters analysis only briefly explored the changes since the introduction of the Industry Training Act in 1992, it has become clear as the current research has progressed that the historical themes identified still have a great deal of validity. This is of particular interest considering the political and economic ‘sea·changes’ in New Zealand since 1984. The aim of this research at the empirical level, then, is to examine how these changes have impacted on training for the skilled trades, and to assess to what extent skill formation in New Zealand remains constrained by the factors identified in the previous research. The empirical data illuminate four key questions.

The first question I ask is: What are the things that, as a country, we could or should reasonably expect a ‘good’ industry training system to contribute to? These may be things like: adequate supplies of appropriately skilled workers, the ability to upskill or reskill those workers as needed, clear transition routes for young people, lifelong learning opportunities, equity goals and foundation skills. Clearly, some degree of consensus on such issues requires a wide-ranging debate on the relative merits of the facilitative role of the state (or market). Trade-offs are inevitable; for example, the much-lauded German dual system of apprenticeship is based upon ‘streaming’ children into vocational or academic course at around the age of eleven (Hamilton, 1990). It is hard to imagine such a thing happening in New Zealand; therefore it is not realistic to expect our industry training system to deliver the outcomes of the highly structured German system.

Second, I ask how the current system performs against these criteria. The short answer would have to be that the performance is ‘patchy’. There are dire skill shortages in many areas. While opportunities for workplace upskilling, reskilling or ‘lifelong learning’ are
available, I would argue that they are not yet cemented into a ‘training culture’. While workplace-based learning is an important transition route for a small percentage of our young people,¹ the favoured route is some form of tertiary education.² Yet this can be an expensive option and, in the case of some of the less useful courses, provides more of a stagnant lay-by than a mainstream transition into employment. New Zealand’s high rates of youth unemployment³ and the distressingly large number of young people who leave secondary school with no or low qualifications⁴ suggest that many young people are in effect denied any sort of formal transition route. It seems self-evident that industry training, or some form of work-place based training, could and should be a powerful tool for facilitating transition for at least some groups of young people.

If it accepted (and this is certainly contestable) that greater social equity is a reasonable and desirable outcome of state investment in industry training, then again the performance of the current system is inconsistent. There are two aspects to this. First, there is the issue of equity within the system. Chapter Four shows that the current industry training system is a long way from delivering equity in terms of gender and, while aggregated statistics for Maori and Pacific people seem encouraging, closer inspection reveals some worrying trends. The second issue is equity of access to industry training. Coverage is increasing, but training is restricted for: those in part-time or casual work; those who are employed in small to medium-sized enterprises (SMEs); support workers (often women); and service sector workers (also often women). The biggest implicit constraint is that ‘industry training’ requires employed status.

Third, I ask why the performance of New Zealand’s industry training system is often less than desirable. On the supply side, the voluntaristic model adopted in the early 1990s has left gaps and weaknesses in training. The national emphasis on tertiary education may reduce the quantity and calibre of those who choose workplace-based training. On the

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¹ In 2001, only 8.5 per cent (8097) of the total number of industry trainees were aged between 15 and 19 (Skill New Zealand, 2002c).
² As at 31 July 2001, there were 59,829 students enrolled in formal qualification at tertiary education providers (48,829 full-time and 11,000 part-time) (Ministry of Education, 2001).
³ The unemployment rate for 15 to 19 year olds was 15.7 per cent as at June 2001, compared with a total unemployment rate of 5.3 per cent (Statistics New Zealand, 2002a).
⁴ During 2001, 17 per cent (9097) of students leaving secondary school did so with none or few formal qualifications. A staggering 37 per cent (1800) of male Maori school leavers fell into this category (Ministry of Education, 2002a).
demand side, training is costly and many work places are organised in such a way that training requirements are minimal. The prevalence of small to medium-sized enterprises in New Zealand is another constraining factor.

It is also crucial to set questions of labour supply and demand into the context of wider institutional and societal attitudes, expectations and obstacles. A useful analytical tool to help achieve this is the human capability framework, developed by the Department of Labour, and shown in Figure 2.1 (Chapter Two, p.32) (Department of Labour, 1999b). The human capability framework, in contrast to the narrower focus of the human capital approach “allows for a more holistic - and realistic - view of individuals as being embedded in a variety of social relations that affect their choices and aspirations” (Bartley, Allen, Dupuis & de Bruin, 2001). The framework allows identification of some of the broader factors that may constrain the ability of the industry training regime to perform. These factors are explored in greater depth in Chapter Nine, while the human capability framework and the human capital approach are discussed in Chapter Two.

The final question is to ask how we can overcome some of these barriers to developing an appropriately skilled workforce. Some thoughts on this form the conclusion of this thesis.

1.3 ‘Industry training’: Towards a definition

The notion of ‘industry training’ is a slippery one, and needs to be spelt out carefully. Prior to 1992, ‘industry training’ in New Zealand was, essentially, apprenticeship. The apprenticeship system was administered by apprenticeship committees in conjunction with the Department of Labour, which kept exhaustive records of every conceivable detail of the apprenticeship contract. It was thus relatively easy to assess the extent and nature of training, and to make long-term comparisons. In 1992, however, apprenticeship became subsumed under the industry training strategy. The focus of the strategy was to provide structured, systematic training leading to nationally-recognised formal qualifications. Employers who participate in the strategy provide training linked to the national qualifications framework (NQF), under the umbrella of the relevant industry training organisation (ITO). Employers must have a formal signed training agreement for each
trainee; provide structured on-job training and access to off-job training; facilitate access to appropriate assessment; ensure training meets national standards; and enable trainees to work towards portable, national qualifications (Skill New Zealand, 2001b).

There are thus many elements in the industry training strategy that correspond to apprenticeship. The strategy, however, had an explicit aim of broadening the base of structured training to as many industries as possible. As at December 2000, only 30 per cent of trainees were involved in training that corresponded to ‘traditional’ apprenticeships (Skill New Zealand, 2001b). The age profile of those training under the industry training strategy was also incompatible with traditional notions of apprenticeship. In 2000, only eight per cent of industry trainees were aged 15 to 19 years (Skill New Zealand, 2001b). Industry trainees do not necessarily work towards what might be considered a ‘trade’ qualification. While the ‘traditional’ apprenticeship industries have essentially ‘moved’ their previous trade certification over to the national qualifications framework, there are myriad National Certificates, at all levels of the framework, towards which industry trainees may be working.

Conversely, some training that may lead to a ‘trade qualification’ may be done outside of the industry training strategy. For example, some of the Level 2 unit standards that lead to the National Certificate in Electrical Engineering (Electrician) can be delivered by secondary schools (New Zealand Qualifications Authority, 2001). Many trades now require pre-trade training, delivered at a polytechnic or by private providers. As trainees in these courses do not yet have a relationship with an employer, they also do not feature in industry training statistics. Prior to the 2001 industry training review, the industry training strategy had been limited to qualifications at Level 4 on the NQF and thus trade qualifications gained over Level 4 were not represented. In hairdressing, for example, two unit standards at Level 5 are required before the National Certificate in Hairdressing (Practice) is awarded (Hairdressing Industry Training Organisation (HITO), 2001). The provision of these unit standards did not attract public funding through the HITO. Finally,

5 In 1998, more than 80,000 school students worked towards NQF qualifications. Although these were obviously not all industry-related, schools were nevertheless the second most important location for gaining NQF qualifications (Dwyer, 2000).
6 As a result of the review, ITOs may now offer training at Level 5 and above, although the focus remains on Level 1 to 4. Of the 9761 National Certificates completed in 2002, 82 were at Level 5 or above (Tertiary Education Commission, 2003a).
polytechnics and private providers are able to move outside of the ITO structure and offer trade training on their own behalf. Students opting for this alternative are funded from the standard tertiary funding system.

Therefore, the industry training strategy and the aggregated statistics provided about it by Skill New Zealand are of only limited use to this research. This is, of course, not to imply any criticism at all of the strategy itself, merely to make clear the difficulties in attempting to study only a ‘slice’ of industry training.

1.4 Methodology

An attempt to study such an amorphous topic as ‘industry training in New Zealand’ is akin to gathering clouds. Therefore, I have made some (albeit arbitrary) delineations to guide my empirical work. These have been determined largely by first, personal interest, and second, by the practicalities involved in making the research achievable. As this research is in many ways a continuation of my Masters thesis, which looked at apprenticeship, I have chosen to focus on the ‘skilled trades’, defined simply as those that in the past used the apprenticeship model. In order to ensure the relevance of the historical comparisons that I have available, I continue to focus on some approximation of ‘apprenticeship’, that is, entry-level, work-based training (both on and off-job), largely geared towards young people, which leads to some form of national qualification at a level equivalent to the previous ‘trade’ certification. Thus, while it is necessary have an understanding of the industry training regime as a whole, I offer but a ‘broad brush’ sketch of this, against which an analysis of the decline and resurgence of apprenticeship-type training is set.

I use four main research tools. First, I have conducted a critical analysis of the development and implementation of the Modern Apprenticeships policy, introduced by the 1999 Labour/Alliance Government. This programme, while explicitly incorporating industries other than those with a history of structured training, focuses on an ‘apprenticeship’ model for training young people. Second, I have carried out case studies of four Canterbury industries; engineering, electrical, hairdressing and agriculture. These industries all had a history of structured training and have to varying degrees retained an apprenticeship model.
Third, I have made some international comparisons, which illuminate various facets of industry training in New Zealand. In particular, such comparisons show the impact of wider societal attitudes to skill formation on specific skill formation policies. Finally, I have monitored and evaluated government and other official policy documents; thus keeping a perspective on the broader subject of industry training.

1.5 The research process

Ethics

After the thesis proposal was accepted, it was submitted to the Lincoln University Ethics committee. This process raised several interesting issues regarding confidentiality. I had assumed that as, in the main, I would be interviewing people in their ‘official’ capacity, the level of confidentiality required would not be high. It was explained to me, however, that aside from the most technical of information, often people would be offering opinions, sometimes on contentious issues, and therefore it was necessary to provide them with confidentiality. Thus, as can be seen from the consent form, attached as Appendix I, the respondents were guaranteed complete confidentiality. Some of the respondents did indeed hold forth with very full and frank views and I was asked on more than one occasion to turn off the tape recorder!

The assurance of confidentiality has posed some problems in reporting the data. I have identified respondents at the simplest level possible, that is, by industry or sector, and generalised position, consistent with ensuring that the data is seen to be credible. The respondent’s position is obviously highly pertinent to the authority of their statements and the use of pseudonyms alone would mask this. New Zealand is a small country, however, and industry training a narrow field, so there is inevitably a slight possibility of identification. I see no way around this tension between confidentiality and credibility; therefore the best I can do is to attempt in all cases to work in an ethical manner, that is, to use the data, and quotations in particular, responsibly, in a balanced manner and in the appropriate context.
Interviews

Thirty-one semi-structured interviews were carried out, with a variety of stakeholders in industry training. It must be noted that this research thus reflects the views of those who choose to engage in training, in whatever capacity, and therefore does not examine those who can not or do not wish to have an involvement with industry training. Several of the respondents wore more than one ‘hat’ and were able to comment on a wide variety of issues. I began the field work by interviewing several respondents from national organisations, to obtain an idea of the ‘big picture’ issues surrounding industry training. I also interviewed two respondents from a temporary employment agency, who had set up a building apprenticeship scheme. The second category of respondents was determined by the case studies I had chosen and was thus Canterbury-based. These respondents are described in the introduction to the case study section. My case study field work also included two observations. As the research progressed, it became clear that a major theme was the role of schools in influencing the career decisions of young people. Thus, the final category of respondents included a selection of people involved in the school-to-work transition process. (See Appendix II for a schedule of those interviewed).

My research instrument was a question schedule, attached as Appendix III. Rather than detailed questions, this comprised ‘starter’ questions, which could be tailored to suit the respondent’s focus. Also included in Appendix III are the starter questions for the interviews with apprentices and careers advisors. Most respondents were passionate about their work, and about training, and offered articulate understandings of many of the areas canvassed. They required little prompting. The interviews lasted from approximately twenty minutes to one hour. They were one-to-one interviews, with the exception of:

- the director and contracts manager of one electrical company;
- the training co-ordinator and the director of the temporary employment agency; and
- the careers advice team (of two people, in each case) in two of the school-based interviews.

Interviews were taped, with the respondent’s permission, and then transcribed. The transcripts were coded using Nvivo software, a form of NUDIST (Non-numerical
Unstructured Data Indexing Searching and Theorising). Coding was initially into broad categories, which I then refined as themes became apparent.

1.6 Conventions

Language

As this thesis has an historical component, contemporary concerns about the use of sexist language must be addressed. The language of apprenticeship is male, and, until comparatively recently, this was an accurate reflection of the almost exclusively male nature of the institution. Thus, in Chapter Three and in the historical sections of the case study chapters, I use ‘tradesman(men)’ or ‘tradeswoman(women)’ rather than the anachronistic ‘tradesperson’. The term ‘tradesperson’ came into usage in the 1970s; thus, I do not note as sexist the use of ‘tradesman(men)’ before that time.

It is also only comparatively recently that much of the terminology of apprenticeship that originated in medieval times has ceased to be used. As these terms will be used in parts of this thesis, some explanation is in order:

**Indentures**: legally binding agreement attaching an apprentice to a master for a specific number of years (originally as an unpaid worker).

**Journeyman**: a person who has served their apprenticeship and is a fully qualified employee; derived from the French ‘journee’ (a day) because journeymen were paid daily.

**Master**: a journeyman with his own business, employing apprentices and other journeymen.

**Premium**: a sum of money paid by the family or guardians of a young person to a master, to secure an apprenticeship.

Referencing

Again, as some of the historical sections of this work rely heavily on archival sources, I have chosen to reference such sources using footnotes. Personal communication (other than the field-work interviews) is also referenced by footnotes.
Quotations
I have chosen to italicise verbatim quotations taken from the field-work interviews, in order to distinguish them from quotations from secondary sources.

Acronyms
It would be hard to imagine a field that is more heavily laden with acronyms than industry training (although I would judge that in this, at least, the Australians and the British beat New Zealand!). To avoid a two-volume thesis, it is necessary to make use of acronyms. Nevertheless, for the sake of clarity, I have included a complete list on pp. xiii-xiv and I use the full version at the beginning of each new page or section as appropriate.

1.7 Chapter outline

In this introduction, I have shown how the research topic has evolved and discussed the methods used. The remainder of the thesis is structured into three sections. In the first section, Chapter Two explores the theoretical understandings that underpin this work. I am particularly interested in the extent to which ‘apprenticeship’ has survived societal changes that have considerably altered much of the framework that supported the system in the past. Chapter Three, therefore, provides a history of apprenticeship in New Zealand, ending as pressures to reform the system mounted throughout the late 1970s and 1980s. Chapter Four analyses the ensuing ‘death’ of apprenticeship in the early 1990s and its rebirth as the Labour/Alliance Government resurrected the name in its Modern Apprenticeships scheme of 1999.

The second section presents the four case studies. It begins with an introduction that sets the scene for the case studies, briefly profiling first the Canterbury region, second, each chosen industry and, third, discussing some of the issues common to all of the case studies. The case study chapters follow.

The final section provides an analysis chapter and a conclusion.
1.8 Conclusion

Part of the joy of researching such a ‘topical’ topic has been the knowledge that many of the issues under consideration have been unfolding directly in front of me. When I began work in 2001, skill shortages were apparent; currently they are dire. The Modern Apprenticeships Scheme was but a pup; now it is well-established (although given the two-to-three year time lag with training, not yet proven). Industry training was administered by Skill New Zealand and was arguably the ‘poor relation’ of other forms of tertiary education; now it is part of the Tertiary Education Commission and supposedly is a ‘prestigious pathway’. The hegemonic ‘knowledge society’ rhetoric was ubiquitous; now the seemingly unquestioning faith placed in the concept appears to be tempered. I end this introduction with a (lengthy) quotation from Dr Andrew West, the Chairman of the Tertiary Education Commission, which validates my choice of research topic and presages many of my findings but which caused a flutter in the dovecotes of tertiary education providers, notably the universities:

How we approach education in the future will be increasingly important in determining how confident, cohesive and wealthy our nation becomes. New Zealand is dependent on having sufficient people with the right skills to power our businesses and industries, and to help our communities function well. It would appear that we don’t have the best mix at the moment. There are a number of reasons for this, but one that appears to be significant is our society’s attitude to qualifications. Many parents want their children to obtain degrees. That’s a reasonable expectation for a family or individual. The question we need to ask is, is that always in the individual’s best interests and in what quantity is it in the best interests of the country’s needs, socially or economically? The decision to pursue vocational instead of academic education needs to be a more respected choice and promoted as a similarly attractive career option in our society (West, 2003, p.1).
PART ONE: THEORY AND HISTORICAL BACKGROUND

CHAPTER TWO

THEORETICAL PERSPECTIVES

The aim of this chapter is to sit an examination of industry training within a broader theoretical perspective. This research grew out of my Masters thesis, which tracked the history of apprenticeship in New Zealand. That work utilised a 'shopping-basket' approach to theory, whereby a range of theoretical perspectives were used to explain various facets of the development of the apprenticeship system. Thus, while much of the analysis was set within a Marxist understanding of the relationship between capital and labour, Weberian ideas of social closure and functionalist explanations of the socialisation process contained within apprenticeship were also utilised.

The importance of an historical springboard in attempting to understand the contemporary situation cannot be over-emphasised. There have been fundamental changes in New Zealand society; however, many of the themes that arose from my Masters thesis, discussed in the previous chapter, have been echoed continually in my research findings. While much of the current rhetoric suggests the ascendancy of the 'knowledge society', and promulgates the idea that increasing the population's skill level will be the panacea for many societal ills, the practicalities of developing successful skill formation policies seem as fraught as ever they were. Thus, the task in this theoretical chapter is to find some means of understanding how, via consensus and contestation, skill formation policies have evolved, taking into account both the continuities and changes in the political, economic and social milieu in which they are set.

In this chapter, then, I begin by discuss the changing discourse of skill: how have definitions changed, who does the defining and for what purpose? Then I offer some thoughts on education, in particular, the tension between the social and economic goals of
education. The connection between skill formation and the individual’s education and training choices has been understood in New Zealand policy-making since the mid-1980s in terms of human capital theory. The assumption has been that as individuals rationally invest in themselves, the skill levels of the country as whole will rise, and thus the economy will grow and be strengthened. Therefore, the role of government is essentially to facilitate the supply of education and training. I critique this approach, and argue that a much wider understanding of the skill formation process is necessary. In order to achieve this, I examine some views of the role of the state, providing some international comparisons to illustrate variations in what is considered appropriate. I then broaden the discussion to the Fordist/post-Fordist debate, aiming to site skill formation policies within an understanding of political economy.

2.1 Skill

A caveat is necessary at this point; while this research is about ‘industry training’ (focusing on training for the skilled trades) as defined in the previous chapter, much of the theoretical debate uses terms such as ‘skill formation’ or refers to a ‘high-skills’ economy. These are clearly broader concepts, in some cases encompassing both ‘higher’ education and, at the other end of the scale, intervention programmes for unemployed youth or the acquisition of basic literacy and numeracy skills. Indeed, merely using the word ‘skill’ opens a veritable can of worms. A discussion of historical changes in the definitions, manifestations and recognition of skill would require several volumes. There are competing and contradictory ideas of what constitutes ‘skill’, and of how it is acquired, maintained, reproduced, recognised and protected. The term is patently problematic, overlaid with historical, social and economic meanings that complicate understanding.

Ideas about skill can be conceptualised as along a continuum. At one end is the ‘technicist’ approach, whereby “skill is regarded as an objective characteristic of technology and work organisation” (Shields, 1995, pp.1-2). Skills are thus able to be broken down into their essential components, and are quantifiable, with the dimensions of skill being seen as task range, task competency and discretionary content. This objectivist conception of ‘skill’, however, overlooks the “social, cultural, ideological and, in particular, patriarchal
dimensions of job definition and the division of labour" (Shields, 1995, pp.1-2). The paradigm also overlooks the possibility of new, unchanged or increasing skill levels.

At the other end of the continuum is the 'social constructionist' approach. The 'strong' version of this approach argues that the classification of an occupation as 'skilled' is arbitrary, decided by the power of those within that occupation to have it classified as such. This power may come from exclusionary devices such as apprenticeship or from the gendered division of labour, whereby the patriarchal structure of society reinforces the definition of men's work as skilled and women's as unskilled (Shields, 1995). The 'weak' version of the social constructionist approach, however, acknowledges that:

nearly all skilled jobs have some objective skill content but that it is strategic position within the production process combined with collective organisation which gains the occupation a skill label. According to this view, some so-called unskilled or semi-skilled jobs also have a significant skill content which goes unrecognised and unrewarded (Littler, 1982, p.9).

Shields, however, rejects the objective/subjective dichotomy, arguing that the 'weak' version of social constructionism allows "recognition that far from being mutually exclusive categories, objective skill and skilled status and, more generally technology and the social division of labour, exist in a dialectical and historical relationship" (Shields, 1995, p.3).

What seems to be important for this thesis is to consider the fit between the concept of 'skill' used by policy-makers, educationalists and industry. For example, Schofield (2000) argued that the survival of the Australian system of apprenticeships and traineeships "depend[ed] on the extent to which they actually develop genuine skills needed by employers to remain or become competitive and, at the same time are valued as genuine skill pathways by apprentices, trainees and their union representatives" (Schofield, 2000, p.9). In her paper, based upon reviews of training carried out in three Australian states in 1999 and 2000, Schofield explored the competing and often contradictory views held by all stakeholders in industry training as to "what was actually happening in terms of the skills of individual apprenticeships and traineeships" (Schofield, 2000, p.9).
Analysing British policy literature since the post-war years, Payne (1999) examined how the meaning of skill had broadened considerably. In the 1950s, Payne argued, skill “tended to be equated with the technical ‘know-how’, manual dexterity and spatial awareness of the skilled craft worker” (Payne, 1999, p.1). Through the 1970s and 1980s, however, economic recession and growing unemployment prompted criticisms of the education system as failing to “provide the relevant skills, knowledge and attitudes needed in a vibrant industrial economy” (Payne, 1999, p.4). The inability of education or training policies to deal with wider economic problems meant that increasingly the ‘problem’ was turned back onto the individual, with a growing emphasis on the development of personal ‘skills’ to remedy unemployment or the trap of low-skilled work:

‘Skill’ was detaching itself from particular occupations and moving beyond its traditional association with specific technical facilities of the skilled manual worker. By the same token, ‘training’ now encompassed a range of generic ‘social and life skills’, ‘communication skills’, ‘reasoning skills’, ‘survival skills’ and ‘problem solving skills’, which in turn implied the acquisition of certain attitudes, dispositions, values and behaviours on the part of the trainee, hitherto felt to be the province of education and socialisation (Payne, 1999, p.10).

The wider economic changes were coupled with technological advances, resulting in a supposedly ‘new economy’. The mantra became that of the ‘upskilling thesis’ or the ‘skills discourse’, the belief that “skill requirements in industrial societies [were] increasing in complexity due to technological change...the need for unskilled labour decline[d] as a corresponding demand for a more expert labour force increase[d]” (Gleeson & Mardle, 1980, p.4). In the British context, Gleeson and Mardle observed that “with recurring predictability government reports, research papers and academic texts have re-emphasised the functional necessity of synchronising the relations between further education, technical training and the occupational structure” (Gleeson & Mardle, 1980, p.3).

In New Zealand, too, the ‘policy orthodoxy’ from the late 1970s was that of “an economy in which skill requirements [were] rising continually and the workforce [was] struggling to keep up” (Higgins, 1994, p.196). The assumption was made by many education and training policy-makers that a (disputed) level of growth in the service sector automatically translated to the need for more highly skilled workers, and that the education system of the day was incapable of producing those workers. Gordon and Snook (1992), however, argued...
that large areas of the ‘service sector’ were likely to be “only minimally affected by the technological revolution” (Gordon & Snook, 1992, p.90). Indeed, while the percentage of those employed in the ‘service sector’ has steadily increased from around 63 per cent in 1992, to 66 per cent in 2002, the range of occupations aggregated within this sector is such that any attempt to draw conclusions regarding skill levels is problematic (Statistics New Zealand, 2003d).

Alongside the decoupling of skill from its traditional occupational basis was an increasing emphasis on the notion of competency: “skills, formerly understood by many as complex social processes, were now de-contextualised and de-constructed into finite, isolable ‘competencies’ to be located as the property of the individual, who then carried them, luggage-like, from job to job” (Payne, 1999, p.12). In the New Zealand context, some of the dubious theoretical assumptions underlying the adoption of a national qualifications framework based upon such competencies were outlined by Smelt (1995). The first assumption, he argued, was that there was a clear set of outcomes in each area of skill and knowledge that could be “identified, specified and agreed” across an industry (or, in the case of generic skills, across industries) (Smelt, 1995, pp.8-9). The second assumption was that those outcomes could be assigned to one of eight levels in a consistent way across industries, could be updated quickly in response to change, and could be set independently from the need to teach to produce the outcome. The third assumption was that the identification and specification of those outcomes would lead to “more and better training, improved skills and higher productivity” (Smelt, 1995, pp.8-9). The assumption of a “functional map of industries” was also challenged by the reality of how the industrial sector worked (Smelt, 1995, p.23). Internal divisions within industries, and boundaries between industries, had historical and social significance that potentially defied attempts at ‘rational’ classifications of skills within those industries. The differing interests of employers and workers also complicated industry mapping; as employers strove to maintain a competitive advantage, and workers to maintain property rights in their skills (Smelt, 1995).

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7 New Zealand Standard Classification of Occupations: Legislators, Administrators & Managers; Professionals; Technicians & Associated Professionals; Clerks; Service and Sales Workers (Statistics New Zealand, 2003d).
Given the elasticity of meanings of ‘skill’ and the rather Carrollian use of the word by policy-makers, educators and those in industry, it is not surprising that the term engenders confusion. What once signified technical specificities, rooted in an occupational basis, is now extended to personal attributes, which may or may not be amenable to being ‘taught’. What was once seen as holistic, comprising technical skill, work culture and identity, is now broken down into random competencies, which may be combined and parcelled up at will. Payne (1999) argued that “the virtue of ‘skill’ [for policy makers] continues to be its very ambiguity and diffuseness...Skill is now so loosely defined that it stretches across both ‘high’ and ‘low’ skill sectors of the economy emasculating the huge chasm of experience between them” (Payne, 1999, p.29).

2.2 Education

If the idea of what constitutes ‘skill’ is contested and confusing, then it is little wonder that the debate surrounding the acquisition of skill is also muddy. The tension between the social and economic goals of education was a constant theme throughout my Masters thesis, be it the disdain expressed by some employers at ‘liberal studies’ being taught during apprenticeship block courses, or, more significantly, the recurring call for the education system to service more appropriately the needs of the economy. At this theoretical level, then, there are two issues to be examined: first, the contested role of general or compulsory education in skill formation and secondly, the debate regarding the public versus private good of education.9

An interesting paradox emerges when the role of general education in skill formation is considered. Neo-Marxists see education as ‘corresponding’ to the needs of the economy: “in many key respects the structure and social relations of education accurately reflect and reproduce the structure and social relations of the workplace”, that is, a hierarchical organisation; extrinsic rewards; and fragmented work tasks (Bowles & Gintis, 1976; cited in Watts, 1985, p.16). Thus, it is claimed that the hegemonic forces of capitalism extend to the education system, which functions to turn out pliant fodder for the capitalist production

8 ‘When I use a word,’ Humpty Dumpty said in rather a scornful tone, ‘it means just what I choose it to mean — neither more nor less.’ (Carroll, 1981, p.190).

9 There is also a wealth of literature regarding the pedagogy of vocational education, which I explicitly make no attempt to address, except at the most general level.
process. Challenging this, however, is the "long moan of history": the perennial and oft-expressed complaints of employers about the quality (or lack thereof) of school leavers (Rikowski, 2001, p.47).

The roots of this paradox can be found in the development of mass education in the West. As the needs of industrialisation prompted the extension of education to the masses, a fundamental distinction between classical education, and science and technical education, grew and solidified. Elite educational institutions began to "propagate a particular academic and cultural heritage which was associated with a gentlemanly disdain for vocational application, and particularly for industrial manufacture" (Watts, 1985, p.9). The next 'wave' of educational development was based on the need for more complex and varied skills as the bureaucracy of public administration and capitalist corporations expanded. Thus, education was based on a supposedly "rational linkage between intelligence, subject choice, academic credentials, and suitability for particular occupations" (Brown & Lauder, 1992, p.14).

Any direct relationship between what was learnt at school and what was required in the workplace, however, was rapidly overtaken by the use of credentials as a selection or sorting mechanism. The idea of the 'rational linkage'; of credentials providing an efficient and equitable connection between education and employment was subverted by three factors. First, qualification inflation, seemingly inherent in the use of credentials, challenges any notion of efficiency. Secondly, the attributes that are important for employment are not always measurable by educational qualifications, but these are used as criteria because they are "administratively convenient and publicly defensible" (Watts, 1985, p.13). Finally, the notion of cultural capital (Bourdieu, 1977) challenges the idea of credentials as an equitable linkage mechanism. Educational achievement is measured in terms of the skills and knowledge valued by those who have the power to set those levels. Students who are surrounded by the trappings of the dominant class are likely to perform better than those who do not have access to such cultural capital (Watts, 1985, p.14).

Taken together, then, the elite disdain of 'vocational' education and the emphasis on the acquisition of credentials help to explain the paradox identified above. Thus, "intrinsic educational values are subordinated to the extrinsic need to provide tickets to employment",...
yet the contents of that education remain academically biased and often have little direct vocational relevance (Watts, 1985, p.15). Watts argued that the emphasis on the ‘academic’ meant that “at each stage of the education system, the content of the curriculum tends to be determined by the needs not of those who will ‘drop out’ at that stage, but of those who will go onto the next” (Watts, 1985, p.15).

Of great concern, and of particular relevance in New Zealand, with high rates of youth unemployment\(^\text{10}\) and significant numbers of young people leaving school with few or no qualifications, is the fate of those who do ‘drop out’. Smith, Hamblett and Holden (2001) question the emergence of a ‘new credentialism’, whereby vocational (or industry) qualifications have come to ‘mimic’ those in the academic sector, becoming: “formalised programmes, often unduly bureaucratic, and tending to centre on examination and assessment” (Smith, Hamblett & Holden, 2001). Thus, the very people who have been marginalised in the compulsory education sector, and who could reasonably expect to find the ‘hands-on’ environment of work-based learning more conducive, are further ostracised: “The overwhelming argument against VET [vocational education and training] programmes based on formal assessment and examinations is that these do not represent an attractive proposition to those previously disillusioned with education and learning” (Smith et al., 2001, p.4). Ironically, such formalised assessment may also fail to meet employers’ needs (Smith et al., 2001). For example, a 2001 study of skill and labour requirement in the New Zealand primary sector compared outcomes offered through available courses with attributes required by employers. The most sought after attributes, mentioned by 48 per cent of employers, good work ethics and attitude, and honesty, were only mentioned as an aim or outcome by three per cent of the courses (Morriss, Tipples, Townshend, MacKay & Eastwood, 2001).

The second theoretical issue referred to at the beginning of this sub-section is the question of whether education is a public or private good. This has become particularly pertinent with the growing prominence of neo-liberal ideology during the last twenty years. Within the ‘New Right’ perspective:

\(^{10}\) See Chapter Nine, p.239.
education is viewed primarily in economic terms: as a means of providing trained human resources to ‘meet the needs of the economy’, and as a commodity to be chosen and consumed by individuals (Codd, 1990, p.ix).

For example, in New Zealand, the 1987 Treasury *Briefing to the Incoming Government* attempted to discredit the idea of education as a public good. Treasury claimed that the economist’s definition of a public good was that it is ‘non-exclusive, non-competitive, and non-positional (that its value does not lie in a restricted supply of the good)’. As education (according to Treasury) did not fall into those categories, it was merely another commodity and as such should be traded in the market place (Grace, 1990).

There are two arguments against the idea of education as a private good. First, if the social role of education is acknowledged, including its place in personal enrichment and the development of citizenship, then education clearly remains an essential public good (Grace, 1990). Second, education, and in particular, the acquisition of skills, is not something that is amenable to organisation through the market. Streeck argued that “market failure in skill formation is endemic and inevitable” for two fundamental reasons (Streeck, 1989, p.92). At the level of the individual, basic work skills are generally acquired at a young age, when the long-term ramifications of choices are the most difficult to imagine, and the “deferral of gratification that is the essence of ‘investing’ ” is the most difficult (Streeck, 1989, p.92). At the level of the firm, the free labour contract, whereby workers have the right to move freely between firms, taking with them expensively-acquired skills, means that “most firms will most of the time have a tendency to invest less in training than they should in their own interest” (Streeck, 1989, p.93).

2.3 Human capital theory

The market failures in skill formation identified by Streeck are echoed in critiques of human capital theory. This theory was developed in the 1960s by Becker (1964) and Schultz (1961). They rejected the idea that labour could be treated as a homogeneous category, that is, the number of workers or the size of the workforce, and called for a “broader concept of capital that included the skills, knowledge and know-how of workers” (Brown, 2001, p.5). It was argued that people rationally invest in their education to secure
the best return from their abilities. Embodied within the theory were “liberal democratic and meritocratic ideals which equate the pursuit of economic advantage with that of equality of opportunity thereby acting as a legitimation of greater investment in education” (Gleeson & Mardle, 1980, p.4). Human capital theory focuses on individual ‘employability’ and the ‘supply-side’ of skill formation, that is, education and training ‘institutions’, drawing on neo-liberal ideas about economic competitiveness. The theory underpinned much of the critique of the New Zealand apprenticeship system through the 1980s. The 2003 ILO report, *Time for equality at work*, however, highlighted a fundamental flaw with the human capital approach:

[while] individual human capital endowment is important, the demand for a worker’s labour depends upon the broader economic environment. When the labour market is tight, it is easier for disadvantaged people to find jobs, but when the labour market is slacker, factors other than qualifications, such as employer’s preferences and personal networks, gain more weight. Therefore, supply-side measures of education and training are important, but need to be supplemented by other more active equality-enhancing measures in the labour market (International Labour Office, 2003, p.72).

The case for the efficacy of the free market in providing optimum levels of skill acquisition has been based largely on the human capital approach. In critiquing this approach, Booth and Snower (1996) posed the key question: does the free market provide adequate incentives for acquiring skills? If so, they argued, then the state should only intervene to allow the market to function more freely; if not, then the underlying market failure must be identified. Booth and Snower, having pinpointed such market failures in skill formation, explained these by referring to some of Becker’s claims. Becker argued that training can be divided into ‘general’ and ‘specific’ components. An investment in ‘general’ training, which is useful to all employers, should be paid for totally by employees, since the (theoretically) perfectly competitive market for general skills allows them to recoup fully their investment. The costs of ‘specific’ training, on the other hand, should be shared by employers and employees, so that each party internalises the costs of breaking the employment contract; thus both receiving compensation for the cost of training (Booth & Snower, 1996).

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11 A market failure is defined as an imperfection in a price system that prevents an efficient allocation of resources. The three main market failures are imperfect competition, externalities (that is, when some of the side effects of production or consumption are not included in market prices) and imperfect information (Samuelson & Nordhaus, 1995).

12 For a specific discussion of skill imbalances, see the introduction to the case study section, pp.132-133.
Booth and Snower, however, claimed that the division of training into ‘general’ and ‘specific’ component was spurious; that, in fact: “Hardly any training is useful to all firms in the economy. Nor is there much training that is useful only to one specific firm. Most training, rather, is useful to a limited number of firms” (Booth & Snower, 1996, p.5; emphasis in original). The implications of this are twofold. First, those limited number of firms become imperfect competitors for labour, and therefore have a degree of market power, leading to market failure. Second, because little training is completely firm-specific, the ability of workers to be mobile between firms leads to the ‘poaching’ externality, whereby firms who have not paid for training are able to appropriate the benefits of training financed by other employers (Booth & Snower, 1996). Thus:

the problems of the poaching of skilled labour and the inability of the firm to be certain of securing an adequate return on any investment in enhancing their employees’ human capital, means that companies may decide upon levels of training that make sense for them as individual companies, but which in aggregate, produce a sub optimal level of activity when viewed from the perspective of society as a whole (Keep & Mayhew, 1998, p.380).

These market failures may be ‘amplified’ by other factors. Since ‘human capital’ cannot be borrowed against, ‘credit constraints’ can be a barrier to individual investment in training. ‘Matching externalities’ occur when people are not compensated adequately for the training they have undertaken. As the number of skilled workers rises, it becomes easier for employers to attract those workers, thus keeping wages lower and reducing the worker’s return from their training expenditure. Two vicious cycles may also reinforce market failure. First, if innovation requires unavailable skilled workers, then firms will not innovate and workers will not train because there is insufficient demand for those skills. The ‘low-skill, bad-job trap’ paradox is similar; firms create few skilled vacancies because there are few skilled workers available, and few workers train to high skill level because there are few vacancies (Booth & Snower, 1996).

Crouch (1995) argued that because industry training produces impure public goods, which are both non-excludable and rival, policies surrounding it “test the wider institutional

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13 In recognition of this, Stevens (1994) introduced the idea of transferable skills: “the skills are of value in more than one firm, and there is competition between firms to employ the worker, but competition is not sufficiently fierce that the wage is driven up to the marginal product” (Stevens, 1999, p.19).
resources of societies, not just the effectiveness of purely economic structures or the efficiency of state capacity” (Crouch, 1995, p.289). The partially public good nature of the skill produced by industry training arises because, although in theory skill is excludable (that is, the benefit of it should accrue totally to whomever has paid for its acquisition), in practice, “the new employer of skilled labour does not compensate whomever it was paid for the acquisition of the skill” (Crouch, 1995, p.289). Yet skill is 'rival', in that if one firm is employing the skilled worker, no other can. These characteristics lead to the likelihood of “acute problems of the under-provision of skilled labour: firms compete for it, but it is impossible to prevent access to it by firms that have not played their part in providing it” (Crouch, 1995, p.290).

The complexity of changes in skill requirements also challenges the tenets of the human capital approach. On the one hand, there is evidence of Braverman’s (1974) deskillling thesis, with the reduction of the skill levels of many existing occupations, intensified by the low skill levels required in many of the ‘new’ occupations created by technological advances. On the other hand, many jobs do require higher levels of skills. Regardless of the actual skill level, however, a piece of paper has become a necessary ‘ticket’ to many jobs. Credentialism is rife: that is, the “inflationary effect set in motion by the vast upgrading of skills and qualifications in society which bear little actual resemblance to the work performed” (Gleeson & Mardle, 1980, p.4). Thus, the investment made in obtaining a qualification may only allow an individual to maintain their ground in the job race, rather than enhancing their prospects: “initially, improving the educational level of a population only enables individuals to compete against each other for a fixed number of jobs” (Crouch, Finegold & Sako, 2001, p.16). In the New Zealand setting, for example, Lattimore et al. (2002) argued that, while there had been a ‘rapid’ upskilling of the workforce from 1986 measured by the number of degree-holders in the workforce, high unemployment and the change to a demand-driven education system appeared to have “stimulated the supply of highly qualified graduates – a type of supply induced demand” (Lattimore, Hawke, Duncan & Ballingall, 2002, p.17).

The extent to which people are able to make rational decisions also challenges the assumptions of human capital theory. Choices are constrained by the resources and the amount of information that are available, and by the time frame that can be envisaged.
There is also not an unlimited choice of occupations set before people; the ‘myth’ of the synchronisation between the educational system and the occupational structure “ignores the ways in which different forms of capital (economic, social and cultural) set limits to the types of employment available in the economy” (Gleeson & Mardle, 1980, p.5). Thus, the ability of people to make ‘rational’ educational and occupational choices is clearly influenced by the often irrational and historically specific “network of social relationships that structure the labour process and the labour market through activities such as employer recruitment practices, workers’ strategies of occupational closure and control, the social construction of skill and so forth” (Higgins, 1994, p.197).

2.4 A counterbalance: The human capability framework

Despite the “ascendancy of the ‘new public management’ and ‘economic rationalism’ of the 1980s and early 1990s”, in the late 1990s the Department of Labour developed the human capability framework (Tipples, 2002, p.217):

Rather than referring only to human resources or “human capital”, we have chosen to focus on the more active and encompassing concept of “human capability”... The Human Capability Framework provides an integrated view of key economic and social objectives, and of understanding the role of the labour market in achieving them. It is a way of understanding the interactions between the capacity that people have to do things, and the opportunities they have to derive wellbeing from those activities (Department of Labour, 1999b, p.4).

Although not yet widely acknowledged, at least not in academic circles, I believe the framework (detailed in Figure 2.1) provides a useful counterbalance to the narrowness of human capital theory, particularly with its recognition of the importance of demand-side factors, or ‘opportunities’. As will be seen in the analysis chapter, Chapter Nine, there has been an increasing emphasis on broadening the skill formation debate to include demand-side influences that were perhaps considered ‘out-of-bounds’ at the height of neo-liberalism.
2.5 The role of the state

Clearly, many of the factors shown on the ‘opportunity’ side of the human capability framework are reliant on, or heavily influenced by, state action. The state thus has a much wider role in skill formation than merely facilitating the supply of skills. Whether this role should be executed by commission or omission, however, is the subject of much debate. In order to explore the role of the state, it is necessary to offer a definition. Burton (1985) conceptualised the state as a *soci-political process*: a “complex of relationships, embodying a certain form of power operating through various institutional arrangements” (Burton, 1985, p.104). This definition captures the dynamism of the state and also recognises issues of conflict, power and compromise (Lloyd & Payne, 2000).

Morris and Batten (1988) summarised four models of the liberal-democratic state, noting that “common to each model is the basic notion of the state as the dominant political authority over society exercising at least the exclusive right to coercion and violence”
(Morris & Batten, 1988, p.3). From that base, the models are ordered according to the “relative autonomy of each model in relation to the economy and particular interests in society” (Morris & Batten, 1988, p.3). Thus, the minimalist state permits state authority to be exercised only to prevent harm and to allow the free acquisition and transfer of property. The instrumentalist state also values individual freedom and emphasises “the reliance of individuals on the efficient functioning of the systems of production”, but recognises and is mandated to correct the limitations of the market in providing some essential services. Neither of these models is concerned with the outcomes of the market economy, only in ensuring that it is able to function. The just state and the ethical state, however, move from an economic to a political rationale and are both concerned with “ideas of justice which demand that the state should ensure a definite and predetermined ‘shape’ to society” and is thus obligated to redistribute wealth generated by the market (Morris & Batten, 1988, p.5). The just state is based upon minimisation of inequality and equality of opportunity. The ethical (or maximal) state is based upon the principle of universal good. Thus, the spirit of community embodied in the state transcends the particular interest of any individual and the state must act where “particular interests fail to realise the principle of the universal good” (Morris & Batten, 1988, p.6).

What a country expects and allows the state to do is thus clearly tempered by the prevailing model adhered to by that country. Chapters Three and Four show how New Zealand moved from a post-war highly interventionist state, to the ‘hands-off’ approach of the neoliberalism of the 1984 Fourth Labour Government and subsequent National Government, and back again to the ‘gentle steering’ (instrumentalism?) of the current Labour-led Government. Jessop, using analysis rooted in the regulation approach (discussed in greater detail on p.48), explained such changes in terms of a move from the ‘Keynesian welfare nation state’ to the ‘Schumpeterian workfare post-national regime’ (Jessop, 2000a, 2000b).

It is important to understand that Jessop’s analysis does not merely consider the ‘state’ as such, but rather the ‘mode of regulation’, that is, the emergent network of norms and institutions which sustain, guide and reproduce the accumulation regime (after Aglietta, 1979) of which the state is one component (Aglietta, 1979; Jessop, 1992). Jessop argued that a state apparatus emerges in a particular time and place in response to the core contradictions of capitalism, that is:
(a) the general contradictions inherent in the commodity form – as reinforced by (b) the specific contradictions inherent in generalising this form to money, land, and, above all, labour-power and (c) the inevitable dependence of the commodity form not only on fictitious commodities but also on various non-commodity forms of social relations (Jessop, 2000b, p.66).

Thus, in order to provide a degree of stability and ‘structural coherence’ that will facilitate accumulation, the state, emerging as one (or a blend) of the models described above, will attempt to balance the “needs of ‘capital in general’ and particular capital...[and will also] seek to institutionalise class compromise and address more general problems of social cohesion” (Jessop, 2000b, p.66).

Jessop characterised the mode of regulation of Atlantic Fordist societies \(^{14}\) as the Keynesian welfare nation state. The main role of the state was to secure full employment and economic growth, balancing mass production with mass consumption via wages. As Fordism blew apart, however, Jessop (2000b) argued that the emerging replacement has been the Schumpeterian workfare post-national regime. The distinguishing characteristics of this regime are: the promotion of “international competitiveness and socio-technical innovation through supply-side policies in relatively open economies”; the subordination of social policy to economic policy; the diminishing importance of ‘national’ polices; and the “increasing reliance on partnership, networks, consultation [and] negotiation...” rather than market forces or top-down planning, or tripartite corporatist arrangements (Jessop, 2000a, p.2). As this thesis progresses, the salience of this characterisation to New Zealand will be assessed.

2.6 International comparisons

An examination of industry training policies in various countries provides some useful insights. Booth and Snower argued that the international diversity of training policies rests on “radically different implicit assumptions about how well the market does in encouraging people to acquire skills” (Booth & Snower, 1996, p.2). For example, in countries such as Germany, it was considered that market failure was endemic and therefore there was “a

\(^{14}\) North America, Europe and Australasia (Jessop, 2000a).
perceived need to create institutions [the apprenticeship system, in the German case] that
bond[ed] employers and employees, with a view to giving them a longer time horizon to
appropriate gains from training” (Booth & Snower, 1996, p.3). In this section, I briefly
sketch the recent history of industry training in three countries; Britain, Germany and
Australia.

It is important to examine the British model because New Zealand imported from Britain
more than simply the mechanics of an apprenticeship system; we also inherited the “Anglo­
Saxon model of capitalism”, modified and tailored to our needs, but nevertheless the basis
of New Zealand’s societal and institutional attitudes to skill formation (Lloyd & Payne,
2002, p.370). Germany is lauded internationally as the touchstone of excellence in industry
training, with an all-encompassing apprenticeship system. It would be reasonable to assume
that there would be similarities in the organisation of training between Australia and New
Zealand, given the similarities in population size, economies and history, and, indeed, until
the mid 1980s this was so. Post 1984, however, quite different paths were chosen by those
in power in each country.

Britain
Changes in the international economy in the mid 1960s exacerbated the decline of the
manufacturing sector that had begun in Britain in the mid 1950s (Thorns, 1992). This
prompted criticisms of the traditional apprenticeship system. Its narrow, exclusive nature
was seen as unsuitable for modern industries, and the notion of time-serving, rather than
training to standards, was regarded as unnecessary and wasteful. Reforms were attempted,
but were insufficient to counter the effects of rising unemployment in the mid 1970s,
reducing the opportunity for union involvement. Youth training schemes, introduced in the
eyear 1980s, were generally held in low regard (Fuller & Unwin, 2003).

The market deregulatory approach of the Thatcher Government had a “profound” effect on
the British training system (Gospel, 1994, p.509). At the macro-economic level, many of
the traditional apprenticeship industries were decimated throughout the 1980s and there
was downward pressure on youth wages. With regard to industry training, ‘New Right’
policies saw the mandatory tripartite Industry Training Boards abolished and replaced with
two new bodies, reducing the opportunity for union involvement. The two bodies were voluntary sectoral organisations – Industry Training Organisations, and local, employer-led Training and Enterprise Councils\(^\text{15}\) (Keep & Mayhew, 1998). From the 1960s, then, apprenticeship numbers showed a long-term downward trend, with dramatic falls in the early and mid 1990s (Gospel, 1998, p.438). Gospel argued that Britain:

found itself with a very mixed and uncertain system of skill formation: deteriorating occupational labour market training; a move towards unregulated markets... and a move towards greater State intervention in terms of funding and compulsion to take up training places, but without any commensurate compulsion on employers (Gospel, 1994, p.510).

In 1994, the Conservative Government introduced Modern Apprenticeship, “a bold attempt to show that the UK could construct a work-based programme on a par with the best in Europe” (Fuller & Unwin, 2003, p.7). The programme, targeting 16 to 24 year olds, aimed to differentiate itself from earlier youth training schemes by being industry, rather government, organised, and by having a more stringent qualification focus. By the end of the 1990s, Modern Apprenticeship in Britain was seen as a successful workplace learning programme that had extended training beyond the realm of traditional trades and had increased participation rates beyond those achieved under the former youth training programme, extending the learning opportunities available to youth as a group in the labour market (Ryan & Unwin, 2001).

Recently, however, attention has focused on the limitations of Modern Apprenticeship. Weaknesses identified by Ryan and Unwin (2001) included: an absence of statutory regulation; stagnation in participation figures; disparity of completion rates between the service and industrial sectors; and only limited participation by the social partners in the regulatory mechanisms of Modern Apprenticeship. Ryan and Unwin (2001, p.107) held that the key factor contributing to the identified weaknesses or limitations of the Modern Apprenticeship programme was the “market-oriented methods chosen for public support for apprenticeship”. This could in part be attributed, they argued, to underlying inefficiencies in the quasi-training market, which encouraged “low quality and weak commitment” on behalf of providers and employers respectively (Unwin, 1997; cited in Ryan & Unwin, 2001, p.108).

\(^{15}\) Now superseded by the Learning and Skills Council (LSC), formed in April 2001, and responsible for all post-16 learning, apart from higher education (Learning and Skills Council, 2002).
Germany

In Germany, the ‘dual system’ of apprenticeship (Austria and Switzerland have similar systems) was developed as the existing apprenticeship system was modernised in the 1960s (OECD, 1994). It involves training in both the workplace and at state-financed vocational schools (Winkelmann, 1995). The dual system is used to both improve the skills of the work force, and as a buffer against youth unemployment. Apprenticeship in Germany covers a wide range of occupations, with more than 350 apprenticeships in existence, and a large proportion of each age cohort taking advantage of this. In 1991, for example, 72 per cent of the labour force had participated in an apprenticeship. The main features of the system are that it is company-based, voluntary and “generates, portable, occupation-specific skills” (Winkelmann, 1995, p.1).

While employers are not required to participate in the system, there is a strong ethos, backed by employers’ organisations, encouraging them to do so. The local and national chambers of commerce, Kammern, “have long had a legal responsibility for managing many elements of business life, including the apprenticeship system” (Crouch, 1995, p.295). Workers are involved through trade unions and works councils (Gospel, 1998). This collective approach to training is underpinned by state support; “an institutional framework that creates an incentive structure able to resolve the standard market failure problems involved in generating marketable skills” (Winkelmann, 1995, p.1).

As well as this tripartite commitment to apprentice training, flexibility within the structure of the system itself has contributed to its resilience. High-quality apprenticeships, which offer employment security through highly portable skills, co-exist with low-quality apprenticeships in the Handwerk (crafts) sector. The system is organised at the regional level, with a co-operative approach to curriculum content and delivery (Winkelmann, 1995). There is scope for further training within industry, whereby tradespeople can study for Meister (master) certification (OECD, 1994).

Despite the evident strength of the dual system, it has come under pressure in recent years. Young people are less willing to enter certain types of apprenticeships, preferring in some cases university level programmes. Changes in the way work is organised means that the
notion of an 'occupation', requiring specialised training, has become problematic. It is argued that apprenticeship discourages flexibility and prevents the development of new qualifications. Strong, stable internal labour markets that provide security of employment are also under threat from economic restructuring and the shorter life cycles of some companies (OECD, 1994). Exacerbating these pressures has been the need for the western German government to incorporate the former German Democratic Republic into a united Germany (Culpepper, 1999, p.44).

Culpepper (1999) assessed such threats to the dominance of the apprenticeship system and its role in Germany's 'high-skill equilibrium' (Finegold & Soskice, 1988) in terms of the West German political economy. First, the German financial system has been characterised as 'patient', that is, it facilitates a "long time horizon for company managers, one by which investment in human capital has time to yield its rewards" (Culpepper, 1999, p.46). While the internationalisation of financial markets clearly posed potential threats to this facilitative ability, Culpepper found that German industry had largely retained the "long-termism" essential to supporting apprenticeship (Culpepper, 1999, p.52). Second, the organisation of production in Germany had been based around "incremental customization rather than either Fordist mass production or radical innovation" (Culpepper, 1999, p.44). This required a workforce with a breadth of skills, well delivered by the dual apprenticeship system. International competition from industries organised along 'lean production' methods, with multi-functional teams of workers, however, challenged the German notion of the skilled worker "who brings to the process a (portable) technical skill that is his or her contribution to production" (Culpepper, 1999, p.53). Yet, Culpepper found that many German companies incorporated lean production techniques while retaining the ethos of apprenticeship and the skilled worker. The final element of the German political economy, the industrial relations system, has also been challenged by the weakening of both employer and union associations. Culpepper argued that the "declining capacity of employers' associations and unions constitutes an empirically verifiable threat to the German apprenticeship system" (Culpepper, 1999, p.43).

Nevertheless, despite challenges to the system, the German dual system continues to provide "a structure for the whole education system and [to organise] the relationship between education (both general and vocational) and employment" (OECD, 1994, p.12).
The status and strength of the organisations that support this system are the envy of many countries. The likelihood of the formation of such associations in other settings, however, depends upon more than just the desire for them to be. Offe (1996) argued that studies of means of regulation other than the state:

elucidate the great significance of repertoires of traditions, symbols, institutional patterns and established routines...[Some countries]...have resources of historically grown political practices, routines and nationwide shared assumptions that allow problems to be successfully regulated outside the formal channels of mass democracy and administrative policy implementation (Offe, 1996, p.68).

The ethos that supports such regulation, however, is not easy to create or develop and it is not necessarily amenable to being transplanted from one country to another, or even between industries within a country.

Australia

Gospel's (1994) discussion of the path of apprenticeship in Australia could equally apply to New Zealand up until the 1980s. He argued that the apprenticeship system persisted in Australia because it suited both the product and labour market system of Australian employers. Relatively small product markets and the small-batch, jobbing nature of much of the work called for tradespeople with all-round skills. Although a large number of skilled migrants settled in Australia, skill shortages remained. The state was heavily involved in labour relations:

the creation of a system of compulsory arbitration and legally binding awards served to restore and codify apprenticeship rules and make them legally enforceable on employers...the awards system strengthened trade unions and thus provided further institutional support for apprenticeship (Gospel, 1994, p.513).

In recent years, however, the Australian and New Zealand apprenticeship systems have followed different paths. While the Australian system has been subject to many of the same pressures as the New Zealand system, reform of apprenticeship has “been very much driven by broader industrial relations and collective bargaining reform” (Gospel, 1994, p.515). Australia, since the election of the 1983 Labor Government, favoured a corporatist approach, with the Price and Income Accord between unions and the government mediating industrial relations (Thorns, 1992, p.120). There was a high degree of government
involvement in apprenticeship. The Commonwealth Rebate for Apprenticeship Full-Time Training (CRAFT) subsidy was introduced in 1970. Although its value and form have varied over the years, in general, employers received a payment ($1500 in 1998) upon taking on an apprentice and a similar further payment when the apprentice completed their time (Dockery, Norris & Stromback, 1998). There is a strong system of state technical institutions: Technical and Further Education (TAFE) colleges. The Training Guarantee Act 1990 compelled employers to spend a certain amount of their payroll on training (Gospel, 1994). Attempts to further increase the range and flexibility of the apprenticeship system and to move to a national qualifications framework were introduced under the 1996-97 heading of Modern Australian Apprenticeship and Trainee System (MAATS) (Dockery et al., 1998). This scheme was renamed the New Apprenticeship System in 1997-98 and the new programme has grown strongly since its introduction.\(^\text{10}\) New Apprenticeships have the flexibility of allowing the apprentice to be employed on a part-time basis and, from 2003, also gave an incentive for school-based apprenticeships (Australian Government, 2003). Trade unions remained closely involved in the development of the qualifications framework. Thus, Gospel argued that:

> Australia has not gone down the free-market, deregulatory road... the award system, supportive legislation and a tripartite approach to industrial relations generally have been significant supports (for the apprenticeship system) (Gospel, 1994, p.517).

This brief survey has shown how a ‘social structure’ such as apprenticeship can be adapted and moulded by the wider social, economic and political environment, and how, in turn, understandings that are derived from that structure feed into and help shape the wider context. That apprenticeship, essentially a pre-industrial institution, has survived through the throes of industrial capitalism to (arguably) the post-industrial age, or (more defensibly) late capitalism, is astonishing. Equally interesting are the variations and accommodations to the system, and the state interventions of some very different countries, that have allowed the apprenticeship system to persist.

\(^{10}\) Part of the reason for this is the incentive scheme attached to the programme. Employers receive incentives, ranging from $1,375 to $4,400, when they engage an apprentice and when the apprentice successfully completes his or her training. There are also additional incentives, for example, a payment of $1,100 for women apprentices in non-traditional occupations and $1,650 for mature-aged New Apprentices (Industry Training Federation, 2004a).
2.7 The bigger picture

Thorns (1992) argued that in order to understand ‘big picture’ explanations of societal changes:

it is necessary to appreciate that changes are mediated through the social structures which have emerged within nation states over time, leading to modifications to global processes and the emergence of varied forms of local resistance to change (Thorns, 1992, p.274).

If we are to move the “almost universal policy consensus emerging across the advanced capitalist world [which stresses] the pursuit of a high-skill, knowledge-based economy” from the heights of heady rhetoric to pragmatic, achievable goals, it is essential to understand the “relationship between institutions, skill formation and economic competitiveness” (Lloyd & Payne, 2002, p.365). These relationships, as Thorns argued, must be analysed at the level of the nation and with an historical understanding. It is also necessary to have a healthy scepticism regarding the goal itself: is a ‘high-skill, knowledge-based economy’ the end or the means to an end? If the former, is it an end that is beneficial for all in a society; if the latter, what is the end, and are those ‘means’ the best or only way of getting there?17

Crouch, Finegold and Sako (2001) identified two of the main debates in contemporary political economy; the diversity of forms taken by modern capitalism, and the difficulties surrounding the survival of that diversity. They argued that skill formation provides a useful way to examine these debates because, sitting as it does at the intersection of the state and the market, “it brings together public policy ambitions and the market economy” (Crouch et al., 2001, p.vii). The Fordist/post-Fordist debate is the prevailing means of understanding the nature of the changes to, or transformation of, modern capitalism, and I now attempt to outline the parameters of this debate. I focus on the regulation approach, because it appears to acknowledge most fully the importance of national specificities and historical development.

17 I am indebted to Lucy Baragwanath for raising this point.
Fordism

Fordism is an attempt by predominantly left-wing and Marxist thinkers to explain advanced capitalist society. It applied the concept of the ‘assembly-line’ form of manufacturing pioneered by Henry Ford to the production process in general. Ford took the ‘scientific management’ principles of F.W. Taylor and used them to revolutionise the manufacture of cars. These principles included the breaking down of the production process into its constituent parts, and examining these to find the simplest and most efficient way of carrying them out. This resulted in a series of tasks that could be carried out by less skilled and therefore cheaper labour. The ‘conception’ and ‘execution’ of the process were also separated, with management holding the knowledge and control, instead of skilled craft workers who were previously able to carry out the whole job. Fordism was much more than a description of the production process, however. The meaning of term was broadened from the descriptive to the analytical by Gramsci (1971), who used it to emphasise Fordism’s hegemonic reach; the “sheer breadth of vision that comprises Fordism” thus also attempted to account for the economic, cultural and political structures of advanced capitalism (Hall, Held & McGrew, 1992, p.185).

Jessop (1992) used four levels of analysis to explain Fordism. First, Fordism involved a distinct type of capitalist labour process, that is, the technological and social aspects of production, as outlined in the previous paragraph. Secondly, the accumulation regime of Fordism, that is, the macro-economic regime that sustains expanded reproduction, was based upon a “virtuous circle of growth based on mass production and mass consumption” (Jessop, 1992, p.47). The third level of analysis is the mode of regulation, that is, the emergent network of norms and institutions which sustain, guide and reproduce the accumulation regime, aiming to ensure a match between production and consumption. In Fordism, wage levels, based upon the semi-skilled worker, were linked to productivity and wage rises were passed on to all sectors. There was a détente between unions and management. Enterprises, which tended to be large and monopolistic, gained their profits from improvements in productivity, economies of scale and cost-plus pricing. The banking and credit system were nationally-based. High levels of mass consumption were stimulated by mass advertising and retailing. Aggregate demand and mass consumption norms were managed and maintained by a Keynesian welfare state. The ‘social security’ offered by this
state was predicated on full employment and the ‘family wage’, which both allowed and reinforced women’s place in the ‘reserve army of labour’ (Shields, 1996). The final level of analysis is the **mode of societalization**, that is, the pattern of institutional integration and social cohesion. Fordism was thus predicated on a ‘wage’ society, with individualised consumption of standardised commodities: ‘the American way’. There was an acceptance/expectation of the role of the state in the provision of activities necessary for the “social reproduction of labour-power” (Jessop, 1992, p.51).

Clearly, this analysis is based on an ‘ideal-type’ of Fordism, and there are problems with each of these levels, for example, ‘assembly-line’ manufacture was limited to certain countries and to only parts of specific industries. It is also necessary to be cautious in applying the concept to New Zealand – obviously, as a predominantly agricultural country, with a small manufacturing sector; there are limits to the usefulness of at least the labour process analysis. O’Brien and Wilkes (1993) described the New Zealand version of Fordism as ‘**Dependent-Agricultural Fordism**’. There was certainly mass-production, but primarily of an **agricultural** nature. New Zealand’s small population and role as ‘food-basket’ for Britain meant that it was **dependent** on the ‘mother country’ to provide the base of ‘mass consumers’ (O’Brien & Wilkes, 1993). Jessop, however, emphasised that:

> under global Fordism, not all economies had to be Fordist in all respects... they could occupy one or more niches based on growing export demand and profits in non-Fordist sectors [for example, agriculture]. Where an economy [was] not itself primarily Fordist, however, its mode of growth [had to] complement the dominant Fordist logic. In this way it [could] still be involved in the Fordist growth dynamic (Jessop, 1992, p.52).

That New Zealand’s economic development followed the route of dependence on an imperial power, characterised as ‘dominion capitalism’, was seen as a product of the willingness of those in power during its colonialisation “to accept satellite status at the periphery, but within the trade and investment framework of British imperialism” (Armstrong, 1970; cited in Armstrong, 1978). Thus, the “ruling class alliance between agrarian capital and ancillary (**comprador**) commercial capital” cemented dependency and reliance on agricultural exports, and blocked industrial development (Armstrong, 1970;

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18 Argentina, Canada, Australia and Uruguay were also termed ‘dominion capitalist’ societies, that is, they “occupy an intermediate position between the world centres and peripheries, and exhibit characteristics of both” (Armstrong, 1978, p.298).
1978; Higgins, 1993, p.148). New Zealand’s role as an ‘imperial farm’ nonetheless enabled it, for a significant part of the twentieth century, to “support a welfare state and living standards of leading first world nations on a primary product-based export economy more typical of developing countries” (Roche, 1999, p.216). As the Fordist period began to blow apart, however, New Zealand was doubly affected, first on its own terms as a tentatively Fordist country and, secondly, as the “transmitted prosperity” of the “imperial centres” was diminished when those countries experienced the crisis of Fordism (Armstrong, 1978, p.302).

The crisis of Fordism

Altvater (1992) argued that the dynamics of accumulation in the post-war years had three principal causes: the complementarity of productivity growth and demand growth, high capital productivity, and the unevenness of development across nations, which facilitated the explosive growth of world trade via the ‘opportunities of backwardness’ (Maddison, 1987). The “converging development of productivity”, however, resulted in the “tendential equalization of productivity levels in the industrialized world” (Altvater, 1992, p.26). This ‘catch-up’ process eliminated the ‘wind-fall’ profits that had so benefited the USA and thus precipitated the crisis of Fordism.

Using Jessop’s four levels of analysis, then, first, productivity gains made via the Fordist labour process were exhausted. Secondly, the well-oiled virtuous circle of mass production and mass consumption ground to a halt as markets became saturated and national economies were increasingly exposed to international forces. Thirdly, the limits of the Fordist mode of regulation became apparent. The ‘family wage’ was displaced by the ‘family income unit’, as earning power dropped and women began to enter the paid workforce in greater numbers, both by choice and through necessity (Shields, 1996). Workers’ organisations flexed their muscles; the ideal-type Fordist firm proved unequal to the challenge of improving productivity; the Keynesian welfare state came under increasing pressure; and the national state was less able to influence global finance flows. Finally, there was resistance to the Fordist mode of societalization, with changing consumption patterns; a rejection of standardised products and services; and a rise in new social movements (Elam, 1994; Jessop, 1992).
In New Zealand, many of these changes were evident during the late 1960s and early 1970s. Characterised as 'the end of the golden weather', these years marked the end of the 'social democratic consensus', which had been defined by full employment, a relatively high standard of living and the general acceptance of a high degree of state involvement both in the economy and in the provision of services (Armstrong, 1994). The somewhat Fordist consensus had been underpinned by a strong rate of economic growth, with little outward questioning of the basis of that economic security. Thus, when economic stability was threatened by Britain's entry into the European Common Market, the oil-price rises of the early 1970s, and inflation and rising unemployment, the political scene also became volatile. The breakdown of consensus was also evident in the social fabric of New Zealand society. Issues that had simmered largely below the level of public awareness came to the boil, women's rights and the growing assertiveness of Maori, for example. Successive governments attempted to maintain the 'consensus', while trying to cope with enormous pressures, both internally and externally (Armstrong, 1994).

The 'working out' of the crisis: Post-Fordism?

Attempts to understand both the crisis of Fordism, and the nature and extent of the changes that the crisis may have engendered, are bundled together (with not a little discomfort, in many cases) under the all-encompassing umbrella of the 'post-Fordist debate'. A key aspect of this debate is whether the changes of recent decades represent modifications to Fordism, that is, are neo-Fordist, or are qualitatively different from Fordism, that is, are post-Fordist: "the key question is whether or not a fundamental transformation, or paradigm shift, can truly be said to have occurred in the nature of contemporary capitalism, the employment relationship and waged labour itself" (Lloyd & Payne, 2002, p.366).19

Given the 'angels on a pinhead' nature of the debate, why is it important for this thesis to attempt to delineate the main positions that are held? First, there clearly have been significant technological, economic, political and social changes in recent decades. Second, these changes have had a major impact on the shape and effectiveness of skill formation

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19 There are, of course, other perspectives to those discussed above. For example, Lash and Urry framed the debate in terms of a move from 'organized' to 'disorganized' capitalism (Lash & Urry, 1987) and Harvey posited 'flexible accumulation' (Harvey, 1999).
policies. Shields (1996) argued that under the Fordist regime: “training requirements were largely firm-specific and employers were willing to make such skill investments [apprenticeship, for example] in their internal labour force” (Shields, 1996, p.55). Finally, the way that these changes are understood has a strong influence on how, and at what level, those policies are analysed. Thus, I now sketch the post-Fordist debate, outlining the three dominant, but not mutually exclusive, theoretical positions and the way in which they attempt to explore the transition from one prevailing phase of capitalism to another (Elam, 1994).²⁰

The first perspective I consider is flexible specialization (Piore & Sabel, 1984), which delineates two opposites of industrial production: mass-production and flexible specialization, or craft production. While these types of production have often co-existed, at certain times ‘industrial divides’ occur, resulting in one type taking prominence. The first such divide occurred at the beginning of the twentieth century as mass-production, organised along Fordist principles, became dominant. The second divide occurred in the early 1970s, as stagnation and uncertainty in the demand for mass-produced goods, and an increasing demand for ‘niche’ goods, combined with the development of flexible technologies to create an “epochal reversal in the industrial paradigm towards craft production” (Amin, 1994, p.15).

Flexible specialization is an essentially optimistic perspective. Piore and Sabel (1984) argued that the nature of mass production meant that the workforce was excluded from decision-making. Therefore, the abandonment of mass-production opened the possibility of collaborative work designs and less hierarchical work organisation (Williams, 1992). The new patterns of consumption became evident in the development of niche and segmented markets. Consumer tastes changed rapidly, with a demand for variety and quality, requiring more flexible manufacturing systems and new ways of organising work to improve product quality. New technology led to enskilling and reskilling of the workforce, with an emphasis on workers who were multi-skilled (Hall et al., 1992). Thus, “product markets not

²⁰ Elam cautioned that the “entire project of periodizing capital history has been critized in particular from within a Marxist tradition which stresses the dialectical and evolutionary nature of historical change” (Elam, 1994, p.3).
technological determinism are at the centre of the paradigm shift" (Piore and Sabel, 1984; cited in Grint, 1991, p.298).

The emphasis on the market as the driver of change is one point of criticism of this perspective. Elam, who characterised flexible specialization as 'neo-Smithian', argued that the perspective subjugated "politics and institutional arrangements to the invisible hand of the Market" (Elam, 1994, p.57). The dualist nature of the perspective is also problematic; there is little evidence that either flexible technology or flexible work practices have assumed the dominance that the perspective predicts: "[w]ork patterns and social relations in the twenty-first century remain segmented, contested and in many cases, socially deleterious" (Nolan & Wood, 2003, p.165). Where 'flexibility' can be observed, it is as likely to be achieved through increasing the number of (cheaper) non-standard workers, at the expense of core workers, as by having an (expensive) polyvalent and highly-skilled workforce (Shields, 1996).

The second theoretical perspective that I consider is the neo-Schumpeterian view of the systemic and cyclical nature of capitalist development. This perspective also periodises capitalist development, viewing that development as occurring in 'long waves' of relative stability. The notion of long waves draws together three economic analyses. The first of these is that of Kondratieff cycles (Kondratieff, 1935), periods of around 50 to 60 years that are "initiated by a clustering of technical and commercial innovation [and ended] when the opportunities created by these innovations become exhausted" (Jary & Jary, 1995, p.575). The second analytical thread is Schumpeterian ideas about entrepreneurial and technological innovation. The third analysis involves the more recent work of Freeman and Perez, who argued that 'quantum leaps' in industrial productivity through the 1980s, coupled with societal changes, resulted in a new long wave of growth. If flexible specialization is considered to be determined by the market, however, Elam argued that the neo-Schumpeterian perspective "subjugates a diffuse and unspecified 'socio-institutional'

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21 Applebaum (1992) characterised these two types in terms of 'static' versus 'dynamic' flexibility (Shields, 1996).
22 Thus, the 1st Kondratieff was based on steam power (1787-1842), the 2nd on railways (1842-97), the 3rd on electricity, the 4th on Fordist work principles and the 5th and current Kondratieff on information technology (Jary & Jary, 1995; Amin, 1994).
framework to an irresistible and relatively articulate 'techno-economic paradigm' " (Elam, 1994, p.57).

The third perspective, the regulation approach, was pioneered in France in the 1970s, drawing on the work of (amongst others) Aglietta (1979), Coriat (1979), Boyer (1986) and Lipietz (1985, 1987) (Amin, 1994). The approach emerged as Marxist political economists, influenced by Gramsci, shifted their attention from an emphasis on value theory to a greater concern with the social forms of capital (Elam, 1994). Also informing the regulation approach was the work of Karl Polanyi, who, in *The Great Transformation* (1957), critiqued market societies, noting "how the disembedding of liberal market forces from traditional social bonds in the nineteenth century had created problems in the areas of land...labour-power and money" (Jessop, 2000a, p.2). Polanyi argued that these supposed 'factors of production' are in fact 'fictitious commodities', vulnerable to market forces and requiring protection from the worst excesses of the market.

The regulationists agreed "that the overriding presence of markets is fundamentally destructive" (Boyer & Drache, 1996, p.6). However, following Polanyi, what is of interest to them is the way in which social forces (both as a response to laissez-faire capitalism and to the more recent neo-liberalism) regrouped to "re-embed and re-regulate the market" (Jessop, 2000a, p.2). Thus, as the destruction wrought by the rampant liberalism of the 1980s and 1990s and the "limits of the market as a steering mechanism and as basis for social cohesion" were discovered, the 'Schumpeterian workfare post-national regime' (see p.34) emerged in some countries: "a new, re-scaled form of market society with a new institutional architecture" (Jessop, 2000a, p.2).

Regulation theory, described by Jessop (1990) as a "continuing research programme rather than an already established monolithic theoretical system", is broad-based and differentiated, with several contributing schools (Jessop, 1990, p.154). The essential aim of the approach was to:

develop a theoretical framework which could encapsulate and explain the paradox within capitalism between its inherent tendency towards instability, crisis and change, and its ability to coalesce and stabilize around a set of institutions, rules and norms which serve to secure a relatively long period of economic stability (Amin, 1994, p.7).
The major concepts of the regulation approach are the regime of accumulation and the mode of regulation, as defined earlier in this chapter. These, together with the prevailing labour process, form the mode of development, and this entity is set within a matching mode of societalization (Amin, 1994). One of the defining features of the regulation approach is the lengths to which the theorists go to avoid any charge of determinism or quasi-functionalism. Thus, Altvater (1992) envisioned new modes of development 'emerging' as 'discoveries' (Lipietz, 1987): "a social form resulting spontaneously and not consciously from conflicting social action" (Altvater, 1992, p.22). Amin (1994) cautioned that any such 'systemically coherent' form or regime was a "partial, temporary and unstable result of embedded social practices, rather than the pre-determined outcome of quasi-natural economic laws" (Amin, 1994, p.7). In line with the holistic nature of this approach is an emphasis on historical and local specificities (Elam, 1994).

The shape of post-Fordism

Despite the differences in the above approaches, it is possible to conflate their elements into a sketch of what post-Fordism might look like.23 Turning again to Jessop's (1992) levels of analysis, the post-Fordist labour process would be based on flexible production processes (flexible technology, work organisation and workforce), with a heavy emphasis on information technology as the source of flexibility and the driver of innovation. The accumulation regime would balance the flexibility of production with growing productivity based on economies of scope and increased demand (on a global scale) for niche products by well-paid, multi-skilled workers. The mode of regulation would "involve commitment to supply-side innovation and flexibility in each of the main areas of regulation": a differentiated and flexible labour market, both within and between countries; 'flatter', more responsive enterprises; an emphasis on contractual relationships; internationalisation of credit; and a refocusing of the state from managing demand to stimulating the supply-side (Jessop, 1992, p.63). Clearly, none of the above can be seen as 'finished products', and the

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23 Depending upon the approach taken, and the level of analysis chosen, there are several related concepts used by commentators to describe this 'prevailing phase of capitalism': the post-industrial society (Bell, 1973; Fukuyama, 1995); 'new times' (Hall & Jacques, 1989; Thrift, 2001); informational capitalism (Castells, 1996); the knowledge-driven economy (Jessop, 2000b); the knowledge society (Giddens, 2001); and the new economy (Thrift, 2001). To 'unpack' these concepts is beyond the scope of this thesis; for a detailed discussion see Baragwanath (2003b).
patchy and incomplete nature of what may be a tendential move to post-Fordism makes an attempt to describe an accompanying mode of societalization difficult (Jessop, 1992). Some possible characteristics of that mode, however, include a “hyperdifferentiated emphasis on difference, individuation and the reflexive construction of taste” (Waters, 2001, p.215).

Many aspects of the above (regardless of the fact that such changes may be tentative, partial or potential rather than actual) have both a direct and implicit impact on skill formation policies. For example, at the labour process level, technological ‘flexibility’ may requires workers who are adaptable and able to ‘learn to learn’, and who are equipped with portable skills. The ‘flat’ or ‘lean’ enterprise may require advanced leadership and planning skills. Conversely, it may also mean the collapse of ‘job ladders’ via the loss of middle-management positions, and work intensification as tasks are devolved (Shields, 1996). An emphasis on formalised contractual relations may mean, at the individual level, that the obligation to train previously inculcated by socialisation is supplanted by externally-imposed dictates. The mode of societalization may impact on how young people regard various occupations; it is much ‘cooler’ to be the designer rather than the pattern-cutter:

Students are captivated by the desire to be a designer with a fixed idea of what this means. For many it is a vision of a person somewhere between Rock Star and Artist, designing mainly with a sketch book and directing a group of able production people...Many of those seeking employment in the fashion industry have little interest in sewing skills themselves (Blomfield, 2002, p.3).

There is a tendency, it could be argued, towards a ‘Shortland Street-isation’ of occupational image – everyone gets the (well-paid) job they want, with no apparent need to train (or make the coffee, empty the bed-pans or do the filing/sweeping/mucking-out!).

2.8 A political economy of skill

I now narrow this discussion back to how we might understand skill formation polices within the post-Fordist debate. This section draws heavily on the work of Lloyd and Payne (2002), who successfully and succinctly integrate the ideas discussed in the previous

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24 For an incisive discussion on the power of discourse to shape and drive policy formation, see Baragwanath, 2003.
25 A long-running New Zealand medical ‘soap-opera’.
section with various discourses surrounding and influencing skill formation policies. Their outline of "three broad positions adopted by commentators with regard to the way work and skill needs are perceived to be changing within advanced capitalist societies" uses the shorthand of the 'knowledge economy' to categorise the positions: knowledge economy optimists; knowledge economy pessimists; and the sceptics (Lloyd & Payne, 2002, p.367).

The knowledge economy optimists (for example, Castells, 1996; Leadbeater, 1999; Giddens, 2000; Carnoy, 1998) embrace a perceived 'paradigm shift': the "promise of an 'emergent' post-Fordist regime" (Lloyd & Payne, 2002, p.367). Flexible specialization will require highly skilled workers, primed with the ability for life-long learning, who will be employed by innovative and responsive firms, which are 'flatter' and trust-based. The education system will feed into the 'new economy', but because creativity, flexibility and autonomy are the required characteristics, education will have a greater emancipatory role than in the past. Thus, "education and human capital formation becomes the critical input and key focus of state economic policy" (Lloyd & Payne, 2002, p.367).

Despite the difficulties with the human capital approach, discussed earlier in this chapter, and in the face of limited evidence to support a wholesale move towards any 'new economy', the New Zealand government sits clearly in the 'knowledge economy optimist' category. This is illustrated by excerpts from a speech by Steve Maharey, Minister for Tertiary Education, to the 2003 New Zealand Association for Training and Development conference:

In order for New Zealand to have a competitive edge we need businesses and individuals that are innovative and adaptable to change...The future of New Zealand depends on the skills of our workforce...there is a need for adaptability and skills that can be applied across a number of different jobs...To make the most of increasing global connectedness, New Zealand needs a workforce that is highly skilled and capable of innovating...This means that skills produced in the education and training system and by the private sector need to be those that are required to produce innovative and high quality products (Maharey, 2003).

The knowledge economy pessimists (for example, Crouch et al., 2001; Hirst, 2000), while accepting a general tendency towards a knowledge economy, point out that "high-skill sectors are only going to create a limited number of high-skill jobs" (Lloyd & Payne, 2002,
The project thus becomes that of extending the benefits of the high-skill sector (both financial and work organisation that favours autonomy, co-operation and trust) to the remainder of the work-force. It could be argued that the exponential growth of industry training in New Zealand over the last ten years supports this perspective. While it is obvious that not everyone will become a highly-skilled biotechnologist (or a Peter Jackson,26 for that matter), extending the benefits of structured training to the wider workforce has the potential to both increase productivity and to contribute to personal fulfilment. The degree to which quantity of training necessarily equates to quality, or emancipation, however, will be discussed in Chapter Nine.

The sceptics (for example, Ashton & Green, 1996) question whether “the rules of international competition have really changed so fundamentally that there exists only one viable ‘high skills’ route to competitiveness and profitability for advanced capitalist economies” (Lloyd & Payne, 2002, p.370). They argue that a ‘low-skill, low-wage’ economy still allows many firms to make an acceptable profit, and that many areas of the service sector, such as retail, banking, insurance and hospitality, are still reliant on “low price, standardised goods and services and a predominantly low-skill, low-wage and casualised workforce” (Lloyd & Payne, 2002, p.370). They point to a polarisation of skills and a fundamental incompatibility between an Anglo-US model of capitalism and the ‘high-performance’ workplace (Keep & Mayhew, 2001). There is certainly evidence for this position in New Zealand. While in this research I focus on the acquisition of intermediate level skills in the ‘skilled trades’, and thus do not consider the service sector, there was evidence of firms in the case studies industries who managed perfectly acceptable results with minimal training and semi-skilled workers.

Each of these positions thus has a degree of resonance with the New Zealand situation. There are ‘high-tech’ industries, and areas in more traditional industries, where highly-skilled workers are required, concentrated and trained. There are also industries that require a few highly skilled workers and many semi-skilled (who may well receive relevant and useful industry training) – the electronics industry springs to mind. But there are also many industries where no or minimal training is either required or offered.

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26 Director, Lord of the Rings trilogy.
So what is the point of the positions described above? They are useful for three reasons. First, they provide a framework to examine the discourses surrounding much of the debate regarding skill formation policies. When it is understood, for example, that much government rhetoric is couched in terms of 'knowledge economy' optimism, it is easier to critique statements that on the surface appear to be indisputable. Second, an understanding of these positions connects the skill formation debate back to the broader theoretical perspectives surveyed in this chapter. Finally, they emphasis the fact that skill formation policies are inextricably set within the wider political economy.

2.9 Conclusion

In this chapter, I have explored many of the theoretical concepts that underpin skill formation. I have examined the changing nature of 'skill', and the ramifications of those changes on how skill is acquired, and by whom. I have outlined some of the critiques of the human capital approach, and have suggested that a fuller understanding of skill formation may be gained from the human capability framework. I have argued that the reason for this is that the supply of skills is but one component of any move towards a 'high-skill' society. To understand the wider picture of skill formation, it is necessary to set it within the changes to, or the transformation of, late capitalism, however conceptualised. I have thus outlined the Fordist/post-Fordist debate, arguing that the regulation approach to this debate provides a useful tool with which to analysis the changes and continuities in skill formation policies and practices in New Zealand.
CHAPTER THREE

THE HISTORY OF APPRENTICESHIP IN NEW ZEALAND

The apprenticeship system in New Zealand has traditionally been the main route for entry into the skilled trades. It is surprising that a system that evolved in pre-industrial times has retained its relevance in a modern capitalist society. This resilience can be accounted for by factors within the apprenticeship system, and by the way in which apprenticeship has suited (often for different reasons) both worker and employer. An examination of apprenticeship in New Zealand illuminates much about our society. The institution of apprenticeship did not survive in all the countries where it was originally practiced, nor was it always transferred to colonies of those countries. The culture of colonial New Zealand, however, with its artisan notions of egalitarianism, followed by the forward-thinking labour legislation of the 1890s, encouraged the retention of the practice and the eventual development of a modern apprenticeship system. The debates surrounding apprenticeship highlight wider social and economic issues, notably the system of industrial relations that developed in New Zealand and the role of the state in mediating between labour and capital.

In this chapter, I build on my Masters thesis to provide an historical survey of apprenticeship in New Zealand, tracing the development of government policies over the years. I briefly describe the origins of apprenticeship, and outline the system of industrial relations in New Zealand. Changes in apprenticeship policy over the years have been the result of various economic and social pressures. These policy changes are thus examined chronologically, and set within the wider societal context. This chapter ends with the introduction of the 1992 Industry Training Act, which signified to many in New Zealand (however erroneously) the ‘death’ of apprenticeship. Several themes emerge from an historical study of apprenticeship: who should pay for industry training, how the optimum number of skilled workers can best be secured, and how the ongoing tension between educationalists and industry can be reconciled, for example. These themes remain pertinent
for a discussion of the contemporary industry training situation, and will thus inform much of the rest of this thesis.

3.1 Early history of apprenticeship

The concept of apprenticeship goes back to the civilisations of ancient Egypt and Babylonia (Vocational Training Council, 1975). In Britain, the early roots of apprenticeship had developed in the medieval guilds, associations that were granted monopoly rights by municipal by-laws or royal charter to produce a commodity. The guilds were responsible for regulating standards, practices and prices relating to the commodity or service. They were powerful organisations in many towns, playing an important role in civic life. Guilds maintained their exclusiveness by restricting the right to produce a commodity to their members who needed to have served an apprenticeship with a master. Apprenticeship was traditionally domiciliary, with the youth (usually male) living-in with the employer, who agreed to teach the trade in return for productive labour (Gospel, 1994). The influence and strength of craft guilds gradually waned, undermined by urban growth and industrialisation, and by the eighteenth century their importance had been considerably reduced (Daunton, 1995).

The British state also played a role in the control of apprenticeship. The 1563 Statute of Artificers aimed to control the movement of labour throughout the country, requiring that many types of workers should be hired for at least one year. This statute also established a national system of apprenticeship regulated by legal indentures, as an alternative to guild control. While these apprenticeship clauses were abandoned in practice in many trades long before the repeal of the statute in 1814, apprenticeship survived in many of the crafts, and as a means for parishes to deal with orphan and pauper children. To meet their responsibilities under the Poor Law, parish authorities could place destitute children with an employer who would supply board, lodging and a small wage, in return for a premium of between three to five pounds. This practice was often a source of cheap labour (Daunton, 1995).
Apprenticeship nevertheless remained an important facet of some professional and commercial occupations, and of the established crafts. Daunton (1995) noted that “the struggle over apprenticeship was central to trade disputes in the 1800s and 1810s” (Daunton, 1995, p.276). The breakdown of the guild system, and the lack of any incentive for the state to maintain apprenticeship, meant that journeymen themselves became the main pillars of the apprenticeship system, as unions of craft workers grew in strength and importance (Griffin, 1981). As industrialisation increased “artisans could no longer follow the traditional sequence, from apprentice, to journeyman, and then to the status of master and married man” (Clark, 1995, p.5). Journeymen thus had good reason to support the apprenticeship system in order to limit the labour supply and thereby maintain their wages (Griffin, 1981). They also wished to preserve their ‘property right’ in their skill.

Employers sought to increase the proportion of apprentices in order to reduce skilled wages and to subdivide jobs to allow cheaper, semi-skilled labour to be employed (Daunton, 1995). There were, however, financial benefits to be gained from older apprentices; the apprentice was trained and basically able to perform the work of a journeyman, but still was only paid apprentice wages (Griffin, 1981). Thus, despite the erosion of apprenticeship in many skilled trades, particularly in London and other large urban areas, apprenticeship remained a defining issue in the relationship between labour and capital (Harrison & Zeitlin, 1985). Hobsbawm argued that in Britain in the 1850s and 1860s there was in most industries “a tacit system of arrangements and accommodations between masters and skilled labour which satisfied both sides”, apprenticeship being one of those arrangements (Hobsbawm, 1984, p.356).

The 1860s and early 1870s were the peak of the strength of craft unionism in nineteenth century Britain. Skilled workers rode the economic wave that the expansion and stabilisation of British industrial capitalism created, able to counter the growing effects of mechanisation because of a strong demand for skilled labour. The depression that began in the mid 1870s, however, “threw into bold relief long-term structural transformations in industry” (Harrison & Zeitlin, 1985, p.33). New technologies and the rationalisation of production meant that the nature of work changed, and definitions of skill had to be renegotiated. The strength of many of the craft unions gave them the power to restrict the use of new machinery to their members, and to ensure that serving an apprenticeship was
still the only route to many occupations, regardless of how the skill levels may have altered. This, then, was the shape of the apprenticeship system that was exported to the new colony of New Zealand in the mid-nineteenth century.

3.2 Industrial relations in New Zealand

Regulation of apprenticeship in the new colony was essentially on an informal basis, with the first legislation being the *Master and Apprentice Act 1865*. The provisions of this Act, which largely dealt with apprenticing destitute children, became outdated as New Zealand moved out of the colonial phase towards the end of the nineteenth century. Attempts to revise apprenticeship legislation were made, but the administration of apprenticeship became subsumed in the bigger picture of industrial relations, with apprenticeship regulated on an award-by-award basis from 1894. By the time that specialist apprenticeship legislation was passed in 1923, the institution was firmly entrenched within the system of compulsory arbitration, and was a crucial component of the negotiating process. It is thus necessary to understand the shape of industrial relations in New Zealand to grasp the role of apprenticeship, and to understand why it persisted.

Boxall argued that New Zealand and Australia developed a distinctive framework for industrial relations because of:

the need to shape a stable economic system in the face of the typical difficulties encountered by agricultural or commodities exporters, disillusionment with the social consequences of strike action and a faith in the value of state initiatives in creating fairer societies (which) led to a willingness to substitute free collective bargaining with a system of state registration of unions and final resolution of disputes through compulsory arbitration (Boxall, 1990, p.523).

Thus, in New Zealand, the *Industrial Conciliation and Arbitration (IC&A) Act*, advocated by William Pember Reeves, was passed in 1894. Under the Act, the country was divided into districts, each with a conciliation board, which was the first port of call for any industrial disputes. As disputes were settled, the results were incorporated into awards that applied to all workers in a particular industry in the district and were ratified by the Arbitration Court. If the dispute could not be settled at conciliation, the case went to the
Arbitration Court, where a binding ruling would be made. Support for this process was by default, rather than from preference, and came from an uneasy coalition of unionists, who had been roundly defeated in the 1890 maritime strike; rural interests, who wished to see troublesome urban unions quelled; and employers, who lacked the political power to insist upon a different system (Richardson, 1996).

There were many ramifications of compulsory arbitration. The union movement was fragmentary, with a few large unions and many small unions, usually organised on an occupational and regional basis. While union members were sometimes granted employment preference, the unions were restricted by the Act in what they could do for their members. They were permitted to represent only on ‘industrial matters’, limited by the Court to wages, hours and conditions of work. The right to strike was severely restricted, and (after 1939) the Minister of Labour could deregister a union (Nolan & Walsh, 1994).

The decisions of the Arbitration Court were based on precedent. Initially, the Court had largely legitimised existing conditions, winning the unions’ favour by reinforcing favourable proportions of apprentices to journeymen and establishing ‘closed shops’ in some awards. Declining wages and the “growing legalism and delays of the Court” in the early twentieth century, however, led to increasing union disillusionment with the arbitration system (Richardson, 1996, p.211). This was expressed most clearly by the formation in 1909 of the radical Red Federation, which advocated industrial action outside the arbitration system. The defeat of the ‘Red Feds’ in the 1912 Waihi mine strike, however, led radical unionists to an uneasy coalition with skilled workers’ unions that resulted in the growth of an independent labour movement. The fact that craft unions remained the “most enduring and staunchest defenders of arbitration” reinforced the deep-seated ambiguity with which the union movement regarded the arbitration system (Nolan & Walsh, 1994, p.23).

Despite the ambiguity with which arbitration was regarded, attacks on the system by other parties could rouse and unite the union movement. Attempts by rural interests throughout the late 1920s to substantially amend the system were strongly resisted by unions, including the Alliance of Labour, which was traditionally opposed to arbitration. Changes to the IC&A Act through the Depression were also hard fought by unions and the Labour
members of Parliament. The IC&A Act was amended in April 1932, with conciliation remaining compulsory, but arbitration to be used only if both parties agreed. Compulsory arbitration was restored in 1936, together with compulsory union membership of those covered by awards (Martin, 1994).

The post-war years saw the increasing bureaucratisation of the union movement. Full employment and the blanket coverage of arbitration system meant little differentiation between wages for skilled and unskilled work; “the arbitration system (delivered) a compressed wage structure and a high degree of uniformity in wage increases” (Nolan & Walsh, 1994, p.22). There was sufficient support for the system to withstand the bitterness of the 1951 watersiders’ dispute and, until the 1960s: “the arbitral system suited a sequence of changing coalitions of interest sufficiently to retain its dominance. Then it began to fall apart” (Boxall, 1990, p.524). Unions that were powerful numerically or through market position wished to extend this power with second tier bargaining outside the system. The ability of the arbitration system to moderate the effect of the labour market on wages was no longer regarded as desirable by less militant unions, and craft unions became disillusioned with arbitration throughout the 1960s as margins for skill were eroded. Thus, “unions started their slow walk away from the arbitration system in the 1960s” (Nolan & Walsh, 1994, p.36). Dissatisfaction came to a head with the 1968 nil wage order, which sealed the fate of the arbitration system and “acted as a stimulus for the first substantive reform of the legal framework”, resulting in the Industrial Relations Act 1973 (Bloxall, 1990, p.526).

Industrial relations in New Zealand were thus marked by the handing over to the state, via the arbitration system, of much of the power (actual or potential) of the parties involved, limiting their strategic options. Judgments of the fairness and value of that covenant varied according to time and circumstance (Nolan & Walsh, 1994). The tension between the security offered by the system and the desire by some unions to exercise their power outside of arbitration was a constant theme of industrial relations in New Zealand. The relativity of wages between occupations became one of the mainstays of the arbitration system, building a historically constructed ‘code’ that often defied the need for wages to be responsive to changes in particular industries, or to skill levels in particular occupations (Nolan & Walsh, 1994). For similar reasons, the regulation of apprenticeship wages and
conditions provided a crucial bargaining point for unions and employers and the debates and negotiations that took place over apprenticeship were often symptomatic of deeper concerns that were unable to be articulated in the circumscribed industrial arena.

3.3 Historical survey

The settlement phase
The settlers who colonised New Zealand in the mid-nineteenth century brought with them the ethos, if not the legalities, of apprenticeship. Despite the relatively fluid nature of society in the new colony, the idea of a young person ‘serving their time’ with a tradesperson was retained in many trades by the settlers. The need for legal regulation of apprenticeship was viewed with some scepticism, however. There was a perception that the egalitarian nature of the new colony with ‘Jack being as good as his master’ would mean a less confrontational relationship between employers and workers and, by extension, apprentices. Indeed, when the Master and Apprentice Bill was introduced in 1865, its main purpose was to enable destitute children to be apprenticed by charitable institutions (New Zealand Parliamentary Debates (NZPD), 1864-1866). Even so, concern was expressed that the Bill would tend to upset the existing relations between masters and apprentices. It was felt that the Bill, in attempting to regulate apprenticeship, sought to introduce “a state of things which existed in England, and which could not be introduced in the colony, such as customs of trade” (NZPD, 1864-1866, p.657).

The Act, which was passed on October 24, 1865, was an extension of the English law, adapted from legislation passed in Victoria, Australia. It made provision for government apprentices, but its main focus was to allow orphanages to bind children in their care to masters who had been approved by the Colonial Secretary. Institutions could bind children above the age of twelve to any “farmer, householder, tradesman or any other person exercising any art or manual occupation” for up to five years (New Zealand Statutes (NZS) 1865, p.142). The master was to provide adequate food, clothing and bedding, and to ensure that the apprentice “attend divine service when practicable at least once on every Sunday and...have particular attention paid to his morals” (Ibid., p.142). Masters were able to resort to the law to punish defaulting apprentices, the penalty being up to three months
imprisonment, and penalties were also specified for the mistreatment of apprentices. The master was obliged to set aside two pounds (or 30 shillings for females) for each of the last three years of the apprenticeship, and pay this to the apprentice at the expiry of the apprenticeship (Ibid., p.144).

Boom and bust

By the late nineteenth century, the 1865 Act had become outdated as the society in which it had been passed moved out of the settlement phase (Martin, 1996). Central government began to over-ride the strength of the provincial centres, helped by the ten-year expansionist spending programme that Vogel, first as Colonial Treasurer and, from 1873 as Premier, implemented throughout the 1870s. The programme, financed by heavy overseas borrowing, was designed to stimulate the economy through public works and immigration (Dalziel, 1996). The resulting urbanisation, growth of state bureaucracy, industrialisation and the accompanying specialisation of work changed the social structure of New Zealand. The 1880s are characterised by Olssen as the beginning of a distinct phase in the shift from a pre-industrial to a modern society (Olssen, 1980).

Industrialisation was encouraged by four factors. First, the volatility of returns for agricultural products made diversification attractive. Second, labour was cheap, readily available and included many skilled immigrants. Third, the internal market had grown over the expansionist 1870s and, finally, there was an increasing recognition of the importance of secondary industry, which grew markedly over the first half of the 1880s. The industrial labour force expanded by 36.8 per cent between 1881 and 1886, increasing to 39,000 workers (Gardner, 1996). Accompanying these changes, however, was a period of recession that began in 1879 and lasted well into the 1890s. Increased competition forced employers to cut costs and the employment of women, girls and boys increased (Gardner, 1996). Poverty and its effects became visible in a manner that challenged the idea of New Zealand as a land of plenty. There was widespread concern that the ills and divisions of the 'Old World' had come to New Zealand.

One of the most distressing symptoms of the recession was the practice of 'sweating'. This was first introduced into the clothing industry in the 1880s as contractors took on fixed
price contracts from the large clothing manufacturers. Intense competition and the need to maximise their profits meant that the contractors forced down the rates paid to their largely female workforce. 'Sweating' soon became a generic term for all exploitation of workers, but it was women who were the most vulnerable to the practice. The high levels of unemployment ensured a pool of workers willing to take on work if the pay offered was not acceptable. The apprenticeship system itself could be exploited by employers to lower the cost of wages even further. Women were taken on as apprentices, often with no pay, with the promise of a job in the future. When the women reached a level of competency that required payment, they were in many cases either sacked, or moved to a different area, with the employer claiming that they were still apprentices and therefore to be paid at a low rate or not at all (Street, 1993).

The concerns about working conditions for women and children were highlighted by the report of the Sweating Commission, delivered in May 1890, which also revealed the weaknesses in the Master and Apprentice Act 1865. There was still provision for children to be apprenticed at the age of twelve, but no compulsion for the employer to teach the trade. Many apprentices were dismissed as soon as they had served their time, or put on piecework at the earliest opportunity. Although the Employment of Females and Others Act 1881 had limited the hours of work for females and children under fourteen, boys aged between fourteen and eighteen could be expected to work adult hours without being paid an adult wage. Submissions to the commission told of 'boy-labour' in many different trades and gave evidence of widespread abuse of apprenticeship provisions. The commission recommended an improved system of indenture, fourteen years as the minimum age for employment and a maximum 48-hour week for fourteen to eighteen year olds (Graham, 1987). The aims were to ensure a 'living wage' and that trades were taught properly (Olssen, 1995).

The Liberal Government

Thus, the response of the Sweating Commission highlighted the need for a formal way of training young people, protecting them from the vagaries of economic fluctuations. In light of these concerns, several attempts were made to place apprenticeship on a legislative basis during the first years of the Liberal Government. Against a backdrop of other radical labour
legislation, William Pember Reeves, the Minister of Labour, presented a *Master and Apprentice Bill* in late 1894. The main features of the Bill were a minimum qualification of a Standard Four pass before a young person could be apprenticed, maximum terms of three years for girls and five years for boys and a ratio limiting the number of apprentices to journeymen. The most controversial clauses specified a minimum starting wage of five shillings per week, and that no young person could be employed at any handicraft unless they were apprenticed under the Act (AJHR, 1894, I-13). Reeves saw the main object of the Bill as that “an employer of boys or girls should not reckon so much on the amount of earnings he can get out of them, but that they should be instructed thoroughly in a trade” (AJHR, 1894, I-13, p.12).

Delays in considering the Bill meant that it was held over until the following year. By this time, however, the consolidation of Seddon’s power, combined with the considerable gains the party made in country areas in the 1893 election, saw the Liberal party begin “a slow but inexorable move to the rural right” (Howe, 1991, p.95). This translated into a growing displeasure with Reeves, and his labour legislation, both from the country and from within his own Liberal party. The passing of the *Industrial Conciliation & Arbitration (IC&A) Act*, in 1894, essentially marked the end of radical labour reform. After bitter public controversy throughout 1895, Reeves was appointed Agent-General in early 1896, and left the colony for London (Howe, 1991).

Seddon took over as Minister of Labour from Reeves. Under his auspices, a *Master and Apprentice Bill* was introduced into the House in 1896, 1897, and 1898. On each occasion, the Legislative Council shelved it. The last mention of the Bill was in 1899 (NZPD). There were several reasons for the failure of the legislation. There was still hostility to measures with Reeves’ stamp on them (Sinclair, 1965). Howe (1991) pointed to the difficulties of getting any innovative labour legislation through Parliament if it seemed likely to affect employers too much, and used the *Master and Apprentice Bill* to illustrate this. Some opinion, reflected in the 1898 report of the Labour Bills Committee, saw compulsory indenture and limitation of apprentices as threatening to displace young people already in work and as restricting the employment opportunities of the ‘rising generation’. Seddon was also not unhappy with the status quo, and was content to use the Upper House embargo
to maintain it, whilst keeping up the appearance of legislatively to improve working conditions.

No doubt all of these factors contributed to specialist apprentice legislation being abandoned. At a more pragmatic level, however, the pressure to reform apprentice conditions eased as the Arbitration Court began regulating the conditions of the skilled trades on a trade-by-trade basis. This level of flexibility met with a degree of approval from all parties concerned. The Court adopted the key features of the 1898 Bill, applying minimum wages, apprenticeship ratios and five to seven year apprenticeships to many of the skilled trades (Olssen, 1995). Accompanying the Court’s rulings was a minimum wage for young workers, enacted in the Employment of Boys or Girls without Payment Prevention Act 1899. This ensured that any youth aged under eighteen who was employed in any factory or workroom was entitled to receive four shillings per week for females and five shillings per week for males. It also outlawed the payment of premiums for employment (Howe, 1991).

The end of the ‘remarkable consensus’

As changes in the definition of ‘work’ began to occur after 1900, traditional notions of skill and workplace control were challenged and the relevance of the arbitration system was increasingly questioned. Holt’s (1986) ‘remarkable consensus’ of the 1890s between employers and workers was threatened by the emergence of factory methods of production, the idea of payment for time rather than task, and the increasing role of management in controlling the work process. There were “two profound transformations occurring on work-sites around the country...one involved the definition of work; the other who would control work” (Olssen, 1987, p.91). There was a wide variation in the ways in which work place changes manifested themselves. The relative strength of the unions involved, the location of the industry (both geographically and economically), the degree of technological innovation and the workshop culture all played a part in the way change was negotiated (Olssen, 1991; McAloon, 1991).

Unionists had welcomed the first round of Arbitration Court decisions. The awards generally legitimised existing conditions, as well as incorporating features that had been
hard fought, such as apprenticeship restrictions. After 1900, however, the Court became "slower and more parsimonious in its deliberations" (Richardson, 1996, p.207). The perception among unionists was that real wages were falling, and that the Court was favouring employers. Olssen argues that many of the accusations against the Court were unfounded. Nevertheless, the perception was enough to unify workers, with the Arbitration Court becoming a "symbol...of the worker’s subordinate position" (Olssen, 1987, p.95).

The ongoing struggles over the definition and control of work played a large part in unifying (and unionising) the ‘working-class’ of New Zealand (Olssen, 1987). Divisions were clear in the 1900s, between support for the radical ‘Red Feds’ who, through shunning the arbitration system, appealed to unskilled workers, and the craft unions whose sectional interests appeared to be better served by the existing system. Ironically, it was the defeat of the Red Feds in the 1912 Waihi gold mine and 1913 Wellington waterfront strikes that paved the way for labour unity. These defeats discredited radical industrial action, but at the same time Massey’s heavy-handed reaction politicised moderate unionists, and "provided the final impetus towards the formation of a working-class party" (Richardson, 1996, p.212).

Thus, by the outbreak of World War One in 1914, the wings of the labour movement were moving towards an uneasy coalition, united by a dislike of Massey. A common disgust with wartime profiteering and military conscription cemented the coalition and resulted in the formation of the New Zealand Labour Party in July 1916 (Richardson, 1996). The common ground between the skilled ‘craft’ unions, whose basis was the notion of exclusiveness, and the unions representing the numerical ‘muscle’ of unskilled workers, reflected the changes in the way work was organised. At a deeper level, ideas of class began to permeate the social structure; workers saw they had more in common than there were differences between them.

As technological advances and the accompanying industrialisation changed the nature of work in New Zealand at the beginning of the twentieth century, the apprenticeship system could easily have become obsolete. Some trades disappeared, others changed dramatically, while some were completely new. Apprenticeship survived this threat for four reasons. First, the power of the skilled worker, buttressed by the exclusive nature of apprenticeship,
meant that often changes could be negotiated, instead of being enforced. Second, both employers and workers became increasingly aware of the need for formal education in many of the 'new' trades. Third, the growth of an independent labour movement, coupled with disenchantment with the arbitration system, intensified the divide between employer and worker, and reinforced the importance of apprenticeship as a bargaining tool. Finally, although the details of the system were certainly debated fully and frankly, the role of apprenticeship as a means for training young people was rarely called into question by either employer or worker.

The *Apprenticeship Act* 1923

The changes to industry over these years were reflected in the call for specialist apprenticeship legislation, which was enacted in the *Apprenticeship Act* 1923. This set in place an apprenticeship bureaucracy, and formalised the technical education requirements necessary for the 'modern' apprentice. The Act "preserved the apprentice-based crafts but created a more flexible system for regulating training" (Olssen, 1995, p.239). The main features of the Act were as follows, first, the establishment of voluntary district apprenticeship committees for each industry, consisting of equal numbers of employer and worker representatives (Martin, 1996). Second, the Arbitration Court was empowered to make orders regarding wages, hours and conditions, the proportions of apprentices to journeymen, the period of apprenticeship, and the minimum age of apprentices in any industry. The Court could also require employers to take on apprentices to ensure an adequate supply of journeymen. Third, the Court controlled, through the apprenticeship committees, the training and examination of apprentices, and could compel employers in a particular area to contribute to the costs of establishing a training institute for their industry in that area. The Act applied only to males, although there was provision to incorporate female apprentices on a case-by-case basis (NZS, 1923). The first case of this was in 1926, when female apprenticeships for hairdressing were recognised (Martin, 1996). Female apprentices in the chemistry and baking trades were recognised in 1927 (AJHR, H-11, 1928; *Book of Awards*, XXVII, 1927).

The training provisions of the Act encouraged attendance at technical schools. Technical education had been offered in the main cities since the 1890s, but the provision was
piecemeal and there was a constant struggle for funding and students. The *Manual and Technical Instruction Act 1902* provided more certain funding for technical education, with payments at every educational level for pupils who received instruction in approved crafts (Commission on Education in New Zealand, 1962). The Wellington Technical School was established in 1905 and pioneered links with industries, particularly the plumbing and electrical industries. This provided a model for technical training under the *Apprentices Act*, and there was a “noticeable expansion in classes from the building and engineering trades in 1924 and subsequent years” (Nichol, 1940, p.217).

The Depression

Apprenticeship was challenged through the Depression years, as numbers fell severely and economic conditions and inroads on the arbitration system threatened the sacrosanct nature of the apprenticeship contract. The deflationary policies of the Coalition Government exacerbated unemployment and weakened the trade union movement (Richardson, 1996). Official unemployment increased from 3130 at 31 March 1930, to 51,529 by 1 April 1933 (AJHR, 1931-1933, H-11). Other estimates of unemployment put the number in July 1933 as high as 81,000, or twelve per cent of the workforce (Richardson, 1996). Over the same time-span, the number of apprentices dropped from 9826 to 5594, reaching a low-point of 3329 in 1935 (see Figure 3.1, p.68). The building industry was especially hard hit. In 1935 over all the skilled trades, 48 per cent of the number of apprentices employed in 1932 remained, whereas in the building trades (bricklaying, carpentry, painting, plumbing and plastering), only 33 per cent of the 1932 apprentice numbers remained (AJHR, 1932-1935, H-11).

In 1932, “owing to the great difficulty that was being experienced by employers in finding employment for their apprentices during the present economic crisis” the *Finance Act 1932* made provision for contracts of apprenticeship to be amended, suspended or cancelled (AJHR, 1932, H-11, p.6). Applications to alter the apprenticeship contract were made to the Arbitration Court on the behalf of individual employers. Orders made included wage reductions ranging from five per cent to 33.5 percent. Rationing of work was also common, with apprentices working three out of four weeks, for example. In these cases, the Court instructed employers to employ apprentices on any additional work available on a
proportional basis. Many informal arrangements were also made between employer and apprentice. In the two-year period up to 31 March 1934, 1295 applications were made for relief from the provisions of apprenticeship contracts. In the majority of cases (1154), contracts were amended to ration-work, or suspended (70), rather than cancelled (35) (AJHR, 1933-1934, H-11). Thus, the decline in the number of apprentices during this time was largely due to fewer apprentices being taken on.

Figure 3.1: Apprentice numbers, 1928-1940 (AJHR, 1928-1940, H-11)

(NB: Figures for new contracts entered into are only available from 1935).

By 1934, the number of functioning apprenticeship committees had dropped from 105 to 66. The Arbitration Court had ruled that if an award or industrial agreement was cancelled then the Apprentices Act ceased to apply to the industry and locality concerned. The Supreme Court, however, reversed this decision in 1935. Some of the apparently defunct committees began working again and the number soon rose back to 94. Strong concerns were expressed by the Department of Labour in 1935 regarding the decline in the number of apprentices. There were two problems identified: first, the lack of employment opportunities for ‘boys’ and, second, the effect the small number of apprentices would have
on the skilled trades in the future. The “extreme reluctance on the part of employers to take on apprentices under the existing provisions” was noted (AJHR, 1935, H-11, p.7).

Improvements in the international economy and the election of the 1935 Labour Government saw an increase in the confidence of the country (Brooking, 1996). Attention was turned to increasing the number of apprentices, and to assisting young people who had missed the opportunity of serving an apprenticeship because of the economic conditions. The Statutes Amendment Act 1936 allowed the Minister of Labour to approve apprenticeship contracts for people aged eighteen years and over (NZS, 1936). It was argued that the optimum number of apprentices required was approximately 10,000; therefore there was a shortfall of nearly 5000. It was decided to launch an intensive campaign to attract older people to apprenticeships. This strategy, along with the improvements in apprentice numbers that had already began in 1937, would aid the recovery of the skilled trades. By July 1939, 1356 contracts had been approved under the Statutes Amendment Act, nearly half of these being in the carpentry and joinery trades (AJHR 1937-1938, H-11).

World War Two

Economic recovery and the Second World War also saw modifications to the apprenticeship system, necessary because of shortages of skilled labour and wartime regulations. The war had a major impact on industry in New Zealand as the development of war-related industries became crucial to support the Allied effort. New Zealand could also no longer expect to import consumer goods; therefore local industries filled the gap. New Zealand’s factories were generally small-scale, and scattered throughout the country. The pressure to produce high-quality military equipment required the co-ordination and adaptation of many small units. The “still immature” manufacturing sector expanded and diversified, with the manufacturing work-force growing on average 3.25 per cent over the war years (compared with a population growth of a little over one per cent). Despite this level of growth, there was an ongoing shortage of labour, which worsened as the rate of mobilisation increased (Baker, 1965, p.147).
One of the first requirements for the New Zealand war effort was the ability to direct manpower. The Labour Legislation Emergency Regulations 1939 gave the Minister of Labour "unprecedented and sweeping powers" (Martin, 1996, p.213). The Industrial Emergency Council, a representative consultative body to advise on wartime working conditions in industry, was set up in 1939. The Apprenticeship Committee of the Industrial Emergency Council was "especially active" (Martin, 1996, p.216). Suspensions of apprenticeship contracts during service were made under the Suspension of Apprenticeship Emergency Regulations 1939. These regulations were amended several times throughout the war. They allowed apprentices to revive their contracts within six months of their return from service. The time spent in service was to be counted as time served under the apprenticeship for the purpose of calculating wages, but the time away had to be made up at the end of the apprenticeship. If the apprentice had performed trade work of a similar class while on service, however, this could be credited to the apprenticeship. Those apprentices in the last year of their contract had their call-up deferred until the apprenticeship was completed, unless they were to perform their trade in service (AJHR, 1940-1942, H-11).

Other issues also arose during the war years. First, despite the wage protection offered, many apprentices were dissatisfied with their wage levels on their return from service. The temptation of well-paid unskilled work was strong; thus employers were often forced to pay journeyman's rate to returning apprentices to retain them in the trade (Baker, 1965). Second, attendance levels at technical education classes declined. Employers and apprentices alike seemed to regard the formal educational component of the apprenticeship as less than important, given the circumstances. Third, as the war progressed, the decline in the number of journeymen affected the number of apprentices able to be trained. The declining number of journeymen also raised debate about proportions, with the Apprenticeship Committee permitting some relaxation of proportion regulations to increase the number of apprentices.

The war exacerbated the shortage of skilled labour, particularly in the engineering trades. Changes to the regulations as the war progressed allowed the Industrial Emergency Council to authorise an employer to take on a substitute apprentice for one in service, even if this would exceed the allowed proportion. The chronic shortage of skilled tradesmen prompted in 1941 the Auxiliary Workers Training Emergency Regulations, which set up short periods
of intensive full-time training for selected workers who usually had some knowledge of the trade. Initially, the engineering industry was targeted, with 266 tradesmen trained and placed in the first intake. The Auxiliary Worker scheme was extended in 1943, with training schools offering 18 weeks of theoretical instruction, followed by 18 weeks practical training. The scheme merged with the Trade Training Schools of the Rehabilitation Department in February 1944. The Industrial Emergency Council was disbanded at its last meeting in July 1945 (AJHR, 1940-1946, H-11).

The post-war years

The war years had permitted the consolidation and expansion of industry in New Zealand. The post-war years saw the beginning of a lengthy and sustained period of economic growth for New Zealand. The country grew impatient with the cautious approach of the Labour Government to lifting wartime restrictions and a National Government was elected in 1949. This government gradually lifted stabilisation measures, but was also conscious of the potential threat of inflationary pressures that had been held in check by statutory means. The economic boom was intensified in 1950 by the rise in wool prices resulting from the Korean War. Secure in the knowledge that Britain provided a stable market for agricultural goods, New Zealand began a time of economic development geared to meet the needs of an expanding population. The rehabilitation of service-people carried on apace, with many of them being absorbed into the burgeoning construction industry. Full employment and high consumption were the hallmarks of a society ready to move into a new era of prosperity and security after the ravages of depression and war (Chapman, 1996).

As the war ended, the Departments of Labour and Education convened a Commission of Inquiry into Apprenticeship (Martin, 1996). The Commission's brief was to investigate vocational education and to examine the existing apprenticeship legislation. Working from the basis that the objectives of the post-war years would be increasing both the population and the standard of living of New Zealand, the Commission argued that "it is an inescapable fact that an adequate supply of efficiently trained artisans is essential to the industrial future of the Dominion" (AJHR, 1945, H-11B, p.4). It was recognised that post-war immigration would be insufficient to supply the number of skilled tradespeople required, and that the apprenticeship system was the soundest means of providing a skilled
workforce. The Commission also argued strongly that work and training were not separate processes, but that they must be integrated: “the representatives of industry and education must collaborate; their harmonious collaboration is vital to the national welfare” (AJHR, 1945, H-11B, p.4).

The main thrust of the Commission’s report was to strengthen the administration of the apprenticeship system. It recommended the appointment of an Apprenticeship Commissioner, and four Deputy Commissioners to be based in the main centres. The Deputies, or their representatives, would chair each local apprenticeship committee, providing administrative expertise to the voluntary committees. At the national level, it was suggested that there should be a Dominion Apprenticeship Committee for each broadly-banded industry. These Committees would consider details of training and examinations, wages and conditions, and the number of skilled workers required. The question of the most appropriate means of training apprentices received a great deal of attention from the Commission. It was recognised that there was a variation in the amount of theoretical knowledge required for each trade, and that problems had arisen when apprentices were taken on who did not have the ability to cope with this type of knowledge. The Commission pointed to a "regrettable lack of co-operation between industry and the (technical) schools in the matter of the education of apprentices" (AJHR, 1945, H-11B, p.10).

The Commission's recommendations were enacted in the Apprentices Amendment Act 1946, and consolidated in the Apprentices Act 1948. National Apprenticeship Committees were set up in twelve industries, and this was extended to 22 in 1949. National apprenticeship orders replaced the often outdated local orders, and the setting of the wages of apprentices as a proportion of journeymen's rates became universal. The principle of 'daylight training' was approved in some industries, with daylight classes starting in 1949 in motor engineering. Block courses were also started for the baking industry (AJHR, 1950, H-11). By 1951, seven industries had in place various combinations of block courses, daylight classes and compulsory evening classes (Labour & Employment Gazette (LEG), 1(2), 1951).

A great deal of the administration of the apprenticeship system was carried out at the 'grass-roots' level of the voluntary local apprenticeship committees. These committees,
which met up to nine or ten times a year, were established under the *Apprentices Act 1923*, and were chaired by the District Commissioner of Apprenticeship. They comprised equal numbers of employer and worker representatives (three of each), and a representative conversant with technical education in the local area. Their powers derived from three sources: *the Apprentices Act 1948*, apprenticeship orders and the Court of Arbitration. The main functions of the committees were to handle the mechanics of entering and completing an apprenticeship, to supervise both apprentices and employees, and to examine any requests for variations from apprenticeship orders. The day-to-day work of the committees included hearing applications for consent for an employer to take on an apprentice, applications for transfer of apprentices and termination of apprenticeship contracts. The onus was on the employer to satisfy the committee that he or she was a suitable employer, that the business was sound and likely to continue and that suitable teaching facilities could be provided (LEG, 14(3), 1964). The local apprenticeship committees also dealt with apprentices who had defaulted on the educational requirements of the apprenticeship (Commission of Inquiry into Vocational Training, 1965, p.64).

Throughout the 1950s, the number of apprentices gradually increased, although “the demand for apprentices [was] still far from satisfied” (AJHR, 1954, H-11, p.23). The low-birth rates of the Depression years meant a smaller number of young people were available for employment, especially in the early 1950s (LEG, 1(1), 1951). Nevertheless, the proportion of school-leavers entering apprenticeships grew steadily throughout the 1950s, from 25.2 per cent in 1950 to 33.7 per cent in 1957 (LEG, 9(1), 1959). This rate was one of the highest in the world, but was still not sufficient to meet the demand in some industries (LEG, 15(4), 1965). Because of the specific nature of the New Zealand economy at the time, the growth of the skilled trades was not uniform. Thus, trades that were essential to the construction industry, and those that supplied in-demand consumer goods and services, boomed. The carpentry and joinery trade accounted for nearly twenty-five per cent of the 3488 new apprentices in 1951, followed by motor engineering (16.6 per cent), electrical (8.9 per cent), engineering (8.8 per cent) and the furniture trade (8 per cent) (LEG, 2(2), 1952).

Maori trade training schemes, initiated in the late 1950s, were one means of helping to ease labour shortages. The schemes aimed to aid the transition of Maori to an urban life style.
The schemes aimed to "transform potential labourers into skilled tradesmen... (providing them) with intensive theoretical and practical instruction... and helping them to adapt to the complexities of city life" (LEG, 17(1), 1967, p.11). By 1966, more than 600 Maori, predominantly from North Island rural areas, had passed through centres established in Auckland, Christchurch and Wellington, earning the general acclaim of employers and technical school staff. The Maori trade training schemes were significant for three reasons. First, they set a precedent for targeted training schemes. Despite some of the questionable assumptions guiding the schemes, they dealt with the reality that many Maori were disadvantaged in the labour market. Second, the type of training offered by the schemes, a period of intensive theoretical education, followed by practical experience, would come to provide a model for later developments in the organisation of apprenticeship. Third, the schemes did provide a conduit to the urban, Pakeha world for a small number of Maori.

There were two concerns throughout the 1950s, both of which were considered as contributing to the inadequate number of apprentices and the low status of the trades. First, it was argued that apprentices’ pay rates had fallen behind journeyman rates, and the wages of public sector apprentices and unskilled workers (LEG, 6(1), 1956). The second issue was the ‘margin for skill’, that is, “the amounts by which the wage rates for indentured tradesmen or workers with equivalent trade skills and experience exceed wage rates for unskilled workers”, which was a crucial component of maintaining the status and differentiation of the apprenticed trades (LEG, 12(4), 1962, p.26). The post-war labour shortages had translated into relatively high wages for all sectors of the labour market, and there was a perception that traditional ‘margins for skill’ had been eroded. Two reasons were suggested for this change; first, the “levelling effect exercised on incomes by our egalitarian thinking in New Zealand” and, second, the emphasis of trade union activity on lifting the incomes of the lowest paid workers, rather than maintaining margins for skilled workers (LEG, 15(4), 1965, p.9).

Nevertheless, stability and a consensus regarding apprenticeship training marked the post-war era. The finer details of apprenticeship orders may have been strongly contested but there was little argument that it was the most appropriate way in which to ensure a skilled workforce. Although some difficulties were identified with apprenticeship, it was generally agreed that the system was well suited to conditions in New Zealand (Commission on
Education in New Zealand, 1962). The two decades after the end of the Second World War cocooned the apprenticeship system. This allowed important changes to be made, such as the emphasis on technical education, but also meant that other aspects of the system solidified and would prove impervious to change, regardless of increasing external pressures.

3.4 Pressures for reform

The end of the golden weather

Economic and social changes from the mid 1960s highlighted the difficulties inherent in the apprenticeship system. The length of time taken to train and the fixed nature of the skills taught were seen by some as barriers to responsiveness to the demands of industry. The end of full employment showed the vulnerability of apprentice intakes to economic fluctuations (see Figure 3.2, p.76) and the need for better planning became a consistent theme. Technological changes, the reality of increasing skill levels in some occupations and the deskilling of others, highlighted rigidities in the apprenticeship system. Technical education assumed a greater importance, and debates about the most effective way to deliver that education occurred throughout the period. Change was slow, however, constrained by the climate of industrial relations, the reluctance of the government to commit extra funding, and the desire of many of the participants in apprenticeship to maintain the status quo.

The apprenticeship system was given the ‘stamp of approval’ by the 1965 Commission of Inquiry into Vocational Training, appointed by the Ministers of Labour and Education in 1965. The Commission was to report on the need for “change, expansion or new developments” in vocational training, in light of the expected population growth and economic development of New Zealand over the following twenty-five years (Commission on Education in New Zealand, 1962). The short recession of 1967-68, however, and the National Development Conference that it precipitated, began a process of questioning the shape of the apprenticeship system. The debate continued throughout the early 1970s as much of the economic and social stability that had been taken for granted during the previous two decades began to unravel, pressured by Britain’s entry into the European
Common Market, the oil-price rises of the early 1970s, inflation, rising unemployment and an increasingly volatile political scene.

Figure 3.2: New apprenticeship contracts, 1961-1973 (LEG, 20(4), 1970, p.34; LEG, 24(1), 1974, p.34)

There were three main points of debate about the apprenticeship system. These were summarised in a 1970 Vocational Training Council report, which claimed that there was a general agreement that the apprenticeship system was not fulfilling its purpose. It was argued that an overhaul was necessary to “take into account modern skills, training methods, and the present and likely future needs of industry, and to meet these ideals”. The first issue was the perceived rigidity and inertia of the system. It was argued that the notion of time-serving should no longer be the focus of training; rather that gaining competency at the job should be the priority. The second area identified was the seemingly

low status of the trades and of apprenticeship. The small wage differentials for tradespeople were mentioned as a possible cause for this. The third issue was the most efficient way of organising the formal component of apprentice training, with pre-entry training or other forms of more intensive off-job training being mooted. Accompanying this debate was the paradox of shortages of skilled workers at the same time as unemployment was beginning to increase.

By 1975, the Vocational Training Council reported that the trend was for a much greater proportion of the apprentice’s training, especially in the first year, to be carried out in a technical institute (Vocational Training Council, 1975). The Council argued that this resulted in faster, more efficient training, which benefitted the employer by making the apprentice productive more quickly. It was also felt that an initial block course eased the transition from school to work, and allowed the teaching of basic practical skills, closely tied to the theory of the trade. Moves towards formalising this ‘extended trade training’, however, were thwarted by the reluctance of the National Government to commit funding. This reluctance was disguised by the government’s development of new criteria as industries approached fulfilment of existing conditions.28

‘Apprenticeship for tomorrow’
While there were piecemeal reforms of the apprenticeship system during the early and mid-1970s, these were insufficient to satisfy the clamour for change from various sectors. In 1981, a consultative document, Apprenticeship for tomorrow: A Government statement on directions for trade training in New Zealand, argued that the basic principles of the apprenticeship system were sound (AJHR, 1981, G-39). Given, however, that there had been fundamental changes in the economy and the labour market, reforms to the system were needed to make apprenticeship more flexible and responsive to changing skill demands. Rising levels of unemployment from 1978 (see Figure 3.3, p.78), a high rate of inflation, and large budget and balance of payment deficits meant unprecedented economic pressures on New Zealand. The result of the fifteen year-long discussion process that had began in the late 1960s was the essentially conservative Apprenticeship Act 1983.

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The Act attempted to streamline apprenticeship, and put many new initiatives in place both to rationalise the system and to extend it to a wider range of people. The provisions of the Act, however, while encompassing many of the concerns that had been expressed, contained more potential than actual solutions. The responsibility for developing those initiatives was placed largely with industries, with minimal funding commitment from the government. This raised three possible barriers to reform. First, many industries were conservative by nature, finding little incentive to change a system that in the main suited their needs. Second, some of those industries that were keen for reform had tried their best with both the extended trade training and pre-apprenticeship schemes, but had often been thwarted by the cumbersome nature of the process and the lack of funding. It was not surprising that these industries were sceptical about apprenticeship reform. Third, industries

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29 Moves to establish pre-apprenticeship courses suffered the same funding constraints and bureaucratic blockages as the attempts to set up extended trade training had faced and only became the norm in some industries from the late 1980s (Murray, 2001).
were bearing the brunt of the economic hardship. Given that training is one of the first areas to be ‘pruned’ in hard times, it was perhaps a little ambitious for the government to expect wholesale reform of training in a period of virtually nil economic growth.

It was also during these years that the low number of women apprentices, and the narrow range of industries in which they were concentrated, became of concern (see Table 3.1). There were many attempts to rectify these issues. ‘Positive action’ initiatives were set up by the Women’s Advisory Group of the Vocational Training Council in the late 1970s. This work was extended and reinforced by the Women’s Employment Officers in the Department of Labour, groups such as the Society for Research on Women (SROW) and the National Advisory Council on the Employment of Women (NACEW), and many individual women in polytechnics throughout New Zealand. These efforts ultimately, however, met with little success, stymied by the ‘resistance-to-change’ of employers and wider social attitudes, and by economic changes that reduced the number of apprenticeship available to anybody.

Table 3.1: Females as a percentage of apprentices in the private sector, 1972-1982 (Welch, 1984)

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<th></th>
<th>1972</th>
<th>1977</th>
<th>1982</th>
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<tbody>
<tr>
<td>Percentage of female apprentices</td>
<td>4.8% (26693 contracts in force)</td>
<td>5.2% (29838 contracts in force)</td>
<td>7.8% (26124 contracts in force)</td>
</tr>
<tr>
<td>Percentage of female apprentices (excluding women’s hairdressing)</td>
<td>0.1% (25427 contracts in force)</td>
<td>0.4% (28460 contracts in force)</td>
<td>1.7% (24531 contracts in force)</td>
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The Fourth Labour Government: Revolutionising apprenticeship?
The election of the Fourth Labour Government in 1984 saw a radical restructuring of much of New Zealand society. The education sector (within which apprenticeship was gradually seen more and more to fit), in particular, was ‘reviewed to within an inch of its life’.
Despite a general move towards deregulation and lessening of the role of the state, in its first term the Labour Government attempted to realise the changes suggested in the *Apprenticeship Act 1983* by using the ‘carrot’ of an apprenticeship subsidy tied to training reform.

The main thrust of this reform was to move to assessment based on competency, rather than on time served. The changes that were required of industries fell into two categories. In the ‘essential’ category, there was a strong emphasis on industry planning. Each industry had to undertake a systematic review of its training needs and be committed to regular reviews, it had to improve the quality of on-the-job training, and it had to review the length of its training period. The total time taken to train had to be reduced or apprentices had to be allowed to complete their apprenticeship based on their competency, rather than the time served. In the ‘desirable’ category, industries were to have considered, and implemented where possible, a broader-based initial training, improved opportunities for female and adult apprentices and considered the active use of group apprenticeship schemes (VTC, 1984).

Reform, however, did not occur at the pace that the government had envisaged. Changes were slowed by reluctant or puzzled employers, and by bureaucratic difficulties. By the late 1980s, the incremental and often piecemeal reforms of the apprenticeship system were overtaken by harsh economic realities and the consolidation of emerging neo-liberal ideology. Similar themes were mentioned in report after report: the need for a highly skilled workforce and flexible, life-long learning practices; demands for increased productivity and responsiveness to the global market place; and the superiority of the market in determining the best mix of skills. These ideals, however, were promulgated in the midst of high levels of unemployment (see Figure 3.4, p.81), especially youth unemployment, and in a country reeling from untrammeled deregulation and the effects of the stock market crash of October 1987.
The sweeping changes to the economy had a profound effect on the number of employers able to offer apprenticeships or, indeed, willing to commit to any form of training. Technological and labour market changes, largely outside the government’s control, also worked to alter the nature of many industries, calling into question the appropriateness of apprenticeship as a means of training. The radical reform of the education system undertaken by the government led to more flexibility in the way in which the formal component of technical training was delivered, with pre-apprenticeship courses becoming the norm in some industries. In respect of the day-to-day running of apprenticeship, the expectations of the government that flexible and competency-based training should prevail met with reluctance from some industries. Increasingly, however, the contraction of the manufacturing sector, growing unemployment and changes in the wider education sector meant that the apprenticeship ‘problem’ became not one of reforming the system, but of questioning the whole validity of apprenticeship as a means of training.
3.5 Conclusion

This chapter thus ends as the social, economic and political structures that had maintained and fostered apprenticeship came under increasing pressure. Changing demographics, decreased employment opportunities, technological innovations and the neo-liberal imperative all combined to ensure that reform of the apprenticeship system was no longer something that could be delayed or attempted incrementally. The threads of reform would be drawn together from 1990 by the incoming National Government, and woven into the Industry Training Strategy, enacted in the 1992 Industry Training Act.
CHAPTER FOUR

THE PHOENIX? THE ‘DEATH’ AND ‘REBIRTH’ OF APPRENTICESHIP

This chapter examines the fate of apprenticeship in the 1990s. It begins by recapping, and exploring in greater detail, the trends that determined the new shape of apprenticeship, or ‘industry training’, as it would swiftly become. The elements of the industry training strategy, introduced by the 1990 National Government, are described, and its impact assessed, exposing the weaknesses and gaps in training resulting from the strategy. The decade, which began, incongruously, with the loss of the terms ‘apprentice’ and ‘apprenticeship’, at least from the political and bureaucratic lexicon, ended with their reintroduction in the guise of the Modern Apprenticeships policy, introduced by the 1999 Labour/Alliance Government.

These policy developments must be set within an understanding of the wider economic, social and political environs. New Zealand, although never really the ‘fortress’ economy claimed by some writers, had become increasingly exposed to the international economy, opening opportunities in some industries, but cementing the demise of others. Long-term demographic and social changes resulted in cohorts of young people with strikingly different prospects (and expectations) from preceding generations. Finally, a wobbly variety of neo-liberalism, while not all-pervasive, had become the default political paradigm.

4.1 The political background

After two terms of revolutionary changes in economic policy from the Fourth Labour Government, a National Government was elected with a strong majority in October 1990. Tucking firmly under its wing the deregulation and restructuring of the previous government, the new government moved to consolidate and extend those economic
changes, and then set about with the same determination to reform the social infrastructure. Benefits were substantially cut in the 1991 budget, and the age for youth rates to apply was raised from 20 to 25. Other social spending was rigorously examined, and, where possible, the funding and provision of social services was separated. The labour market was deregulated (although not to the extent that many wished) with the *Employment Contracts Act 1991* (Boston, 1999).

The neo-liberal ideology informing these changes also underpinned many changes to the education system, both at the compulsory and post-compulsory levels. Education was increasingly seen as an investment required to support the ‘enterprise culture’, rather than as a ‘good’ in its own right. The idea of the ‘enterprise culture’ was a legacy from Thatcherite Britain, and attempted to answer the question of how a country could survive and compete in the global marketplace. This involved:

remodelling social institutions along commercial lines and encouraging the acquisition and use of so-called ‘enterprising qualities’...at the heart of this notion of an ‘enterprise culture’ is the need to reconstruct education so that it will deliver the research, skills and attitudes required for New Zealand to succeed in an increasingly competitive international economy (Peters & Olssen, 1999, p.195).

4.2 The economic background

Alongside this rhetoric, however, was the undeniable reality of a depressed economy and high rates of unemployment, especially youth unemployment. The average growth rate, based on real per capita gross domestic product, declined markedly between 1987 and 1992 (Dalziel, 1999, p.62). The number of registered unemployed passed 200,000 in 1992 (see Figure 4.1, p.85), and unemployment in the fifteen to nineteen year age group throughout the period was more than double the total rate of unemployment (see Figure 4.2, p.86). The general pattern of labour force growth mirroring the size of the working population in the post-war period was thus “fractured in the late 1980s by the joint impact of economic restructuring and recession” (Krishnan, Hunter & Goodger, 1992, p.5).
Such widespread unemployment was the result of a number of long term trends, and of the ways in which the Fourth Labour Government (and subsequently the 1990 National Government) chose to deal with the impact of those trends. Morrison (1991) identified several contributing factors: a declining rate of job growth, a large population cohort ready to enter working age, the pressure to curb state expenditure, reduced international demand for New Zealand's traditional exports, and an emerging international debt burden. The direct reason for the rise in unemployment, however, was the loss of jobs in the manufacturing sector (over 80,000 jobs lost from 1980-1990) (Morrison, 1991; Willis, 1994b), which is explored in greater detail in Chapter Five. The decline in this sector had a particular impact on young men, as the corresponding drop in apprentice intakes denied them the traditional “sheltered ports of entry” to skilled work provided by apprenticeship (Higgins, 1994, p.197). All these trends were exacerbated by the October 1987 share-market crash:
We had the share-market crash in '87, which meant that there was a huge downturn in industry training because there were hundreds and hundreds of companies closing and people being made redundant, including apprentices, and just here in the Canterbury region, we probably dealt with 300 or 400 redundant apprentices (Interview with Industry Training Organisation official).

Figure 4.2: Youth unemployment rates, 1987-1995 (Statistics New Zealand, 1998)

The wider economic changes were examined in a 1990 report for the New Zealand Planning Council, *Tomorrow's Skills*, which couched the debate in terms of the “new economy” (Callister, 1990, p.2). The report argued that the major growth in the economy would be in the ‘service sector’, that is, in tourism, education, health, information and financial services, transport and intellectual property. Two options for the future of New Zealand were presented. The country could become a low-cost producer of resource-based
commodities, or concentrate on producing high value products aimed at niche markets, competing in the highly competitive global market. The second option would require a highly skilled, flexible workforce, with the emphasis on quality and improved productivity, and would result in a high income, high employment society. The report considered that primary and manufacturing industries would remain vital to the economy, but argued that changing technology would limit employment growth in these areas. It was predicted that, by 1997, nearly 70 per cent of jobs would be in the service sector, with a move to 'information-intensive jobs' and a requirement for higher levels of education. Thus, the report argued, there was a need to improve post-compulsory education participation results and to make what was taught in all education sectors more relevant to the 'new economy' (Callister, 1990, pp.7-8).

The plethora of reports directly concerned with, or touching upon, vocational education continued into the new decade.30 The theme was generally that of a crisis situation in the labour market, with New Zealand portrayed as having a relatively lowly skilled and unproductive workforce. There was a unanimous call for urgent and wide-reaching industry training reform. The often imported 'experts' painted a fairly dismal picture of the state of New Zealand's skill base and its potential for improvement. The apprenticeship system, in particular, was accused of being too rigid, discriminatory and of being unable (or unwilling) to accommodate training in new technologies. The impression given was of a country full of frustrated entrepreneurs, brimming with technological innovations, ready and willing to leap into the 'new economy' and make millions of dollars, but being unable to do so because of an unskilled and uncooperative workforce, made that way by an 'airy-fairy' education system and the straight-jacket of adversarial industrial relations.

As discussed in Chapter Two, however, the difficulties in which New Zealand found itself were not solvable by simply tweaking the supply side of education and training, or by holding individuals responsible for their supposedly inadequate skill sets. Gordon and Snook (1992), for example, pointed to the "major disjuncture" between demands on the education and training system to produce workers for the 'new economy' and the "reality of"

high levels of unemployment in the existing economy” (Gordon & Snook, 1992, p.92). Thus, the claim of what was becoming the ‘orthodox’ position, that increased unemployment was caused by the higher skill requirements of jobs could be turned on its head; in fact, the economic downturn meant fewer employers were willing or able to train workers to any level of skill.

4.3 The restructuring of the youth labour market

Economic and social changes and political imperatives combined to have a major impact on the traditional catchment for entrance into apprenticeship (or industry training). This ‘restructuring’ of the youth labour market was examined, in the British context, by Ashton, Maguire and Spilsbury (1990). They pointed to a fundamental reshaping of the labour market through the 1980s. Although they acknowledged the impact of Thatcherite neo-liberal policies, they argued that “the role of the political process has been constrained by more deep-seated and fundamental social and economic processes” (Ashton, Maguire & Spilsbury, 1990, p.1). Several labour market trends impacting on the youth labour market were identified, each of which resonated with corresponding conditions in New Zealand. These were a decline in manufacturing, growth of employment in the service sector, growth of part-time employment, increasing participation of females, growth in the number and proportion of managerial, professional and technical occupations, a decline in unskilled manual jobs and a growth in self-employment (Ashton et al., 1990).

The reality of the impact of these changes in the New Zealand context was examined by Higgins in a 1994 paper, in which she also questioned the widespread notion that a ‘skills deficit’ existed. She accused the New Zealand Planning Council and similar bodies of carrying out their analysis at the level of national aggregate data, and thus ignoring what was happening in the workplace and at the local labour market level. Her analysis of the Christchurch youth labour market between 1976 and 1991 showed that while skill requirements had risen since 1970 those changes were “readily incorporated into training courses” (Higgins, 1994, p.199). The real ‘deficit’ was in the loss of jobs in the apprenticed trades, due to a combination of technological and macro-economic changes. Thus, when suitable young applicants outnumbered both the training places, and the jobs available, the
idea of a ‘skills deficit’ “falls a little flat... young people in Christchurch have thus experienced diminished access to formally recognised skilled work, and have found few attractive opportunities opening up in other traditional youth occupations” (Higgins, 1994, pp.199-200).

4.4 The new industry training structure

It was against this background that the Industry Training Act 1992 was passed. The National Government elected in 1990 found that the previous government had already carried out most of the groundwork for a major change of emphasis in education. Lockwood Smith became the new Minister of Education in November 1990. One of Smith’s major interests was “curriculum reform, and the need to integrate the curriculum with qualifications... breaking down the barriers between different types and levels of educational institution and the qualifications they offered” (Butterworth & Butterworth, 1998, p.210). This integration was characterised as ‘seamless education’ by Smith in the 1993 report, Education for the 21st Century (Peters & Olssen, 1999, p.185). One of the overarching themes of policy development through the late 1980s and early 1990s was thus the need for cohesion between workplace training and traditional forms of education.

The implementation of the Industry Training Act 1992 was overseen by the Education and Training Support Agency (ETSA), which had been charged with administering and servicing apprenticeship under the Education Amendment Act 1990, until such time as a new legislative basis for apprenticeship was put in place. ETSA was also responsible for administering the Access scheme and the Primary Industry Cadet schemes (ETSA, 1992, p.6). The 1990 Act also established the New Zealand Qualifications Authority (NZQA) to develop and administer the much vaunted national qualifications framework. All these components of change to vocational training were brought together in the National Government’s Industry Skills Training Strategy, announced in the 1991 budget, and designed to elucidate the reasoning behind the forthcoming Industry Training Bill (ETSA, 1991, p.14).
There were five main areas to the Industry Skills Training Strategy. First, it was envisaged that the new training system would be industry-led. The industry training organisations (ITOs) that were to be set up for each industry or group of industries would be "responsible for the design, management, and delivery of training for their industries" (ETSA, 1991, p.15). The ITOs would also be self-funded, although there was provision for contracting with the government for the use of state funds. The second component of the strategy was NZQA, which would work in partnership with industry to develop training programmes. Third, the government foresaw funding for apprenticeship training being transferred gradually to industry control on a contestable basis. Fourth, the legislative basis for the strategy was to be the Industry Training Act, which would replace the Apprenticeship Act 1983 and the Technicians Training Act 1967. The final component of the strategy was two other training schemes, a Youth Traineeship programme and the Training Opportunities Programme (TOP), which was to progressively replace the Access scheme (ETSA, 1991).

The Education and Training Support Agency was given the power to recognise an ITO for any industry if it was satisfied that the ITO could set and administer appropriate skill standards, organise training delivery and that the organisation was broadly representative of a cohesive and rational industry grouping. There was no direct mechanism in the Act for the ITOs to collect levies from firms within the industry (New Zealand Statutes, 1992). The industry training reforms, whose two components were the Industry Training Strategy and the national qualifications framework (NQF), were branded by the government as Skill New Zealand (Prime Ministerial Task Force on Employment, 1994).

4.5 Industry training organisations

The transfer of the administration of apprenticeships to the relevant ITOs was begun by the Education and Training Support Agency in late 1992 and 1993, and completed by 1994. By the end of June 1993 there were 39 recognised ITOs, covering approximately 43 per cent of the workforce, and by June 1994, seventeen of those organisations had taken control of their training (ETSA; 1994). However, while the ethos of apprenticeship ensured that some employers continued to have a commitment to taking on young people and training them,
several of the cornerstones of the traditional apprenticeship system were shattered by the new strategy.

One of the most crucial changes to take place under the *Industry Training Act* was the replacement of the apprenticeship contract with an employment contract under the terms of the *Employment Contracts Act 1991.31* This Act placed the onus for negotiating the ‘employment contract’ on to the individual, breaking “the historical link between union membership and negotiating authority” and “withdraw(ing) the state from its century-old involvement in the extensive prescription of bargaining and representation” (Walsh & Brosnan, 1999, pp.119-121). Thus, the triumvirate of union, employer and state that had protected and supported the apprenticeship system was broken.32

The New Zealand Council of Trade Unions (NZCTU) criticised the new environment, arguing that it was “not acceptable to leave apprentices and other workers under training to the mercy of their individual power in the current environment” (NZCTU, 1993a, p.12). They called for a minimum standard training contract, underpinned by legislation that outlined the rights and responsibilities of both parties to the training contract (NZCTU, 1993a, p.12). Employers, too, in their own way, recognised the threat that losing the specialist nature of the apprenticeship contract posed. The managing director of an Auckland boat-building firm was quoted as saying:

> Apprenticeships are history since the *Employment Contracts Act*. Now don’t get me wrong, I think the *Employment Contracts Act* is the best thing that’s ever happened to this country, but it’s really dealt to apprentices (Shannon, 1994, p.15).

The structure of many of the industry training organisations was also a cause for concern from various quarters. At the most basic level, the record keeping and communication with the Education and Training Support Agency by some of the new ITOs was less than desirable. Participation levels in industry training became difficult to track accurately, with a range of sources providing data that were not always comparable (Sturrock, 1995, p.9). Figure 4.3 (p.92) paints a fairly dismal picture of the numbers of young people entering

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31 This Act has been repealed, and replaced with the *Employment Relations Act 2000*. The implications of this change for apprenticeship are yet to be revealed.

32 This was the ‘corporate consensus’, for those such as O’Brien & Wilkes (1993), who apply a Fordist framework to New Zealand.
apprenticeships, and of the total number of apprenticeships, clearly correlating with economic conditions. The difficulty in obtaining accurate figures is illustrated by the fact that the December 1993 figures are approximations, based on the number of apprenticeship files transferred by ETSA (Sturrock, 1995, p.20). From this point on, ETSA statistics were based on those in 'systematic training contracts', encompassing apprentices, cadets and any others fitting the classification. Long-term comparisons of specific groups thus became problematic.

Figure 4.3: New and existing apprenticeships, 1990-1993 (Sturrock, 1995, p.15)

![Apprenticeship numbers, 1990-1993 (Year ended June)](chart)

The 1994 Prime Ministerial Task Force on Employment, established across party lines, expressed concern about the "relatively fragile" state of many ITOs. It argued that in some cases, industry groupings tended to be small and narrowly based, with concomitantly narrow funding bases. It appeared that while employers may have been prepared to purchase training from the appropriate ITO, they were not necessarily prepared to supply the funding required to establish that ITO (Prime Ministerial Task Force on Employment, 1994, p.73). In 1995, for example, approximately 90 per cent of the income of the ITOs still
came from government funding, with industries directly investing only around five million dollars per year (Smelt, 1995). These concerns were echoed by the tripartite Manufacturing Advisory Group in its 1996 publication, *The Emerging Challenges* (Manufacturing Advisory Group, 1996).

The New Zealand Council of Trade Unions (NZCTU) was unhappy with parts of the industry training organisation structure. There was no requirement in the *Industry Training Act* for ITOs to include either union or worker representation. While some prospective ITOs, for example the Plastics ITO, included a joint union and employer body, this was at the discretion of those involved in the establishment process (NZCTU, 1993a). The NZCTU was also concerned at the narrow definition of the majority of ITOs. The ability of ITOs to "self-define", it argued, could lead to duplication of coverage, fragmentation of logical industry groupings, added expense for employers and providers and difficulties with the portability of qualifications (NZCTU, 1993a, p.22). Examples of some of these problems were clear in the initial shakedown period of ITO formation. The Electrotechnology ITO was reportedly involved in "border skirmishes" over coverage with the Engineering ITO, while concerns about competitive advantage inhibited the formation of an ITO for motor vehicle assemblers (Smelt, 1995, pp.28-29). The building industry had two ITOs; the Federated Builders and Contractors and the New Zealand Contractors' Federation, while other industries had no formal training mechanism (Shannon, 1994, p.12).

The government's concern about the scarcity of apprenticeship training prompted the offering of the Skill Start recruitment incentive from July 1993. This was designed to encourage employers to take on and train young people aged between 16 and 21 years, and provided an incentive payment of $1000 for recruitment of trainees in the target group. This payment, $700 at the start of a training agreement and $300 after six months of employment (AGB McNair, 1994), was considered an acknowledgement of the high initial costs of taking on an apprentice or other trainee (ETSA, 1996). Of the 2490 new apprentices recorded at February 1994, around 1870 were Skill Start Trainees. The government, however, was disappointed with the number of employers taking part in the

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33 Note the resemblance to the Australian CRAFT subsidy, discussed in Chapter Two, p.40.
scheme. It was considered unlikely that the target of 5000 places set for June 1994 would be reached. This was explained in part by the limit of three incentive payments to each employer. The government also argued that the slow up-take provided "additional evidence that the reluctance of employers to employ young people is based on more than the up-front costs associated with hiring new staff" (Prime Ministerial Task Force on Employment, 1994, p.74). Skill Start was phased out in 1996, officially because of the 'sizeable' increase in the number of trainees, and the fact that it had been superceded by the Skill New Zealand Strategy (ETSA, 1996, p.20). An assessment of the scheme one year from its inception, however, pointed to the "significant deadweight cost" associated with the scheme (AGB McNair, 1994, p.10). The research showed that of the sample surveyed, 88 per cent of employers would have taken on the same number of apprentices regardless of the subsidy (AGB McNair, 1994).

4.6 The national qualifications framework

The national qualifications framework (NQF), administered by the New Zealand Qualifications Authority, was fundamental to the industry training strategy. The idea of a national, integrated qualification system had been gaining momentum throughout the 1980s, both at the philosophical and practical level. If apprenticeship training was to successfully move to assessment based on competency, rather than on timeserving, then some form of national standards were viewed as essential. In 1987, Tom McCool, the chief executive of the Scottish Vocational Educational Council (Scotvec), was invited to New Zealand to explain the Scottish system of standards-based assessment for technical and vocational areas. The ideas found a willing audience among many educationalists, such as David Hood, a secondary school principal. Hood chaired the working party that established the new authority, and was appointed as the founding chief executive of the NZQA in 1991 (Chamberlain, 2000).

The building blocks of the national qualifications framework are unit standards. Each standard "explicitly states in a list of performance criteria what a person has to know, do and be able to understand to be considered competent in an area of skill and knowledge" (Skill New Zealand, 1998, p.2). Each unit standard sits on one of the NQF's eight levels of achievement, and is of a varying size and credit level. Qualifications are thus made up of
packages of credits that accumulate towards either a National Certificate, at levels one to four of the framework, or a National Diploma, at levels five and up (Skill New Zealand, 1998). The rationale behind the NQF is that credit for skills and knowledge should have national currency, be portable across industries, and be able to be gained from any accredited provider. Industry advisory groups, some of which evolved into ITOs, initially carried out the development of unit standards for industries. NZQA was the ‘gatekeeper’ for the qualifications framework, assisting with development of unit standards, and having the final say on the acceptability of both the unit standards, and of the qualifications that they constituted. The copyright of each registered unit standard was held by NZQA, which also determined, in consultation with ITOs, the accreditation of providers (Smelt, 1995).

Dissatisfaction with the national qualifications framework, and its delivery by the New Zealand Qualifications Authority, was both practical and philosophical. As early as 1994, the Prime Ministerial Taskforce on Employment was concerned at the slow speed of the implementation of the NQF. This was seen as delaying progress in policies that were dependent upon the framework, such as the Industry Training Strategy. The potential proliferation of unit standards, and the resultant complexity and possible unresponsiveness of the NQF was also noted (Prime Ministerial Task Force on Employment, 1994). Another complication was the differences in funding levels for various course providers. It was argued that this could cause trainees to “select courses on the basis of the Government support available, rather than the educational appropriateness of the course” (Prime Ministerial Task Force on Employment, 1994, p.73).

The development of the national qualifications framework required a huge amount of effort from government agencies, education providers and industry bodies. Although many trade qualifications were moved wholesale to the NQF, the specificity and detail required to allow competency-based assessment via unit standards meant that each skill had to be broken down into its constituent parts, and written up as a discrete task. Much of the work was done against a background of tight economic conditions and in the competitive environment described previously. Despite the relatively quick transition to the NQF, the complexity of the framework and the increased administrative burden associated with it were disincentives to many employers, (especially those with small businesses), to engage in training. The development of the new training regime, and unit standards in particular,
appears to have been a 'fly by the seat of your pants' endeavour, with a huge amount of extra work involved:

*We had a large learning curve when we had to do a lot of work outside of the normal to get it up and running... At that stage we had about 14 apprentices, so it wasn't whether we could do it or not; we just had to do it, for the sake of the apprentices... It was very difficult; extremely difficult, because the information wasn't there and the backup wasn't there for it as well, so it was a bit of a nightmare, really* (Interview with manager, engineering firm).

### 4.7 Assessment of the industry training strategy

By 1996, 52 industry training organisations were recognised by the Education and Training Support Agency. Co-training was purchased from 31 ITOs, twelve of which had little or no formal training before the *Industry Training Act*. The industry training strategy was thus successful in achieving one of its major aims, which was to extend the benefits of structured training to industries outside of the traditional apprenticeship industries. As at December 2000, approximately 70 per cent of trainees were registered in programmes that were unrelated to past apprenticeship training (Skill New Zealand, 2001c). The number of industry trainees increased steadily from 1993. Over 78,000 people were involved in some form of industry training as at June 2002 (see Figure 4.4, p.97) (Skill New Zealand, 2002d). The new system also enabled the completion of the move to competency-based assessment via the national qualifications framework, and facilitated new forms of delivery of the theoretical component of training, such as pre-apprenticeship courses.

Despite these successes, there were areas of concern regarding the strategy. These focused on the funding and delivery of industry training, equity and access issues regarding training and wider concerns regarding the ability of the new strategy to deliver a skilled workforce. Perhaps the most significant change, however, was the loss of the term ‘apprenticeship’. The perception was created in the minds of many that, because the old structure had been dismantled, there was no longer any such thing as apprenticeship:

*... and then this Industry Training Act, and the revamp of the whole system, and of course, in those days, Lockwood Smith and Bill Birch, amongst other politicians, were going around saying, ‘We have repealed the Apprenticeship Act, we’ve got rid of the whole system’ and people saw that*
headline and didn’t read below it. So all of a sudden there was this massive confusion in NZ about, ‘Well, who do we contact for apprenticeship training, how is it done now? – nobody knows!’ And ITOs weren’t established, ITOs didn’t have representation, ‘Who do we phone?’ Nobody knew, so a lot of them said, ‘Well, stuff it!’ (Interview with ITO official).

Figure 4.4: Numbers in structured industry training, 1993-2002 (Skill New Zealand, 2002c; Green, Hipkins & Williams, 2002; Tertiary Education Commission, 2003a)

Funding
The funding of industry training was a contentious issue throughout the 1990s. The voluntary nature of the training framework meant that ITOs were unable to place compulsory levies on their industry members, thus being dependent on Education and Training Support Agency funding, on charging fees for their services, or on the good will of the industry they represented. The long-range view of ETSA was that industries would gradually take more responsibility for funding their training needs, with government funds to be used mainly for seeding finance to develop structures to allow this. The ITOs, on the
other hand, argued that increasing trainee numbers, and the reluctance of many within the industries to contribute financially, meant that greater government funding was essential if industry training was to continue.

The contestability of training funding contributed to an ‘explosion’ of ITOs competing for a slice of the funding cake. In 1997, for example, there were 53 ITOs in New Zealand, compared with 18 in Australia, which were based upon broad industry groupings (Henderson, 1997):

'[Officials] needed to take the best industry practice, and the best practice out of the ITOs who were successful, and go to the ITOs that were unsuccessful and inefficient and costly and not doing the job, and say, 'Get your shit together, do it this way, or you're not in business, we won't fund you'. But they didn't do that and so we have a whole raft of 40-odd ITOs, maybe a third of them are still struggling to do what they're supposed to do, so there are some industry sectors out there that are suffering' (Interview with ITO official).

The Building and Construction Industry Training Organisation (BeITO) was particularly vocal on funding issues. In October 1995, BCITO claimed that of the $8 million it required to carry out training, it had received only $6 million from the government. The number of building industry trainees had more than doubled, from 1000 in 1992 to 2400 in 1995 and the ITO stated that, unless the government met the funding shortfall, it would be forced to axe courses, or increase the fees charged by up to 300 per cent. Indeed, BCITO announced in November 1995 that in 1996 it would fund only nine of the sixteen off-site building courses that had been offered in 1995 (Maling, 1995a). The Education and Training Support Agency countered BCITO's claims by arguing that total ITO funding had been boosted by 80 per cent, to $56 million for the 1995-96 year, and that it was the responsibility of industry to meet any funding shortfall by charging fees, or by increasing the amount that the industry contributed (Maling, 1995b). The issue was again raised in 1998, when BCITO sought control of all government-subsidised training in its industry. BCITO's executive director, Trevor Allsebrook, argued that the industry and its trainees were not prepared to meet the "ever-widening" difference between government funding and the cost of providing training. He also argued that tradespeople working in the industry
were better placed to judge the competency of a trainee than "a bunch of academics in polytechnics" ("Building industry training at risk, say polytechs," 1998, p.2).34

A review of industry training was carried out in 2001 and the Industry Training Federation's35 submission succinctly summarised pressing funding issues. Some of the difficulties identified included: historically-based variations in funding for different ITOs;36 anomalies between funding for industry training and other tertiary funding (leading in some cases to "perverse incentives" creating "duplication and competition between ITOs and providers" (Industry Training Federation, 2001, p.8); and ongoing problems with establishing the appropriate balance of industry and government contribution, complicated by the difficulty in assessing the 'in kind' contribution made by industry. Two other issues were the capping of funding for training above Level 4 on the qualifications framework, and the thorny issue of industry levies37 (Industry Training Federation, 2001).

Delivery

Funding issues thus impacted on the delivery of industry training. The Motor Industry Training Organisation (MITO), for example, also felt pressured by the perceived lack of government funding. This ITO, which had 3900 trainees in 1997, claimed that its funding for off-job training had been more than halved over the three years up to 1997. This resulted in the MITO halving its polytechnic training contracts for 1998 and rethinking its long-term training structure to reduce formal polytechnic training to a minimum.

This action, part of a general trend, caused polytechnics to devise measures to ensure their survival as deliverers of trade training. One of the measures was the fierce marketing of trade courses, with polytechnics prepared to move out of their traditional catchments to entice both students and ITO funding. For example, in late 1997, Southland Polytechnic set up the Southern Institute of Technology in Christchurch, offering automotive engineering.

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34 This debate is of great interest in light of the current concerns with 'leaky' buildings. As at the 2001 census, only 32 per cent of the people working in the industry sectors represented by the Building and Construction Industry Training Organisation were trade trained. That organisation is currently moving to broaden and strengthen its qualification framework (Burghout, 2003).

35 The Industry Training Federation represents the majority of ITOs.

36 A single funding rate was set in the 2004 budget. This was $3,200 for all ITOs; higher than the current average rate of $2,972 but less than $3,700 lobbied for by the Industry Training Federation (Industry Training Federation, 2004c; Maharey, 2004).

37 See Chapter Ten, p.278.
paint and panel and carpentry course for 120 apprentices and pre-apprentices (Crean, 1997). The new campus was established in response to an approach from the MITO to Southland Polytechnic, asking them to run motor trade courses in Christchurch because of the MITO's dissatisfaction with the cost and quality of the courses offered by Christchurch Polytechnic ("Motor industry body backs Southland way," 1997).

Polytechnics also discovered, after policy clarification from the Ministry of Education, that they had the option to move outside of the ITO structure and offer trade training on their own behalf. Students opting for this alternative were funded out of the standard tertiary funding system. In 1998, for example, in response to the withdrawal of ITO support, Christchurch Polytechnic established an Equivalent Full Time Student (EFTS) funded apprenticeship system, enrolling about 35 non-MITO 'apprentice' mechanics and about 15 non-BCITO 'apprentice' carpenters. ETSA saw no inconsistency in the contestability of training funding, arguing that different industries would make choices based on their needs (Cassie, 1998).

From 1990, the training market was also opened to private training establishments (PTEs). The number of PTEs grew rapidly from 1990 to 1994, then stabilised at around 800 establishments. In 2001, there were 841 PTEs registered with NZQA, of which 29 per cent had a vocational focus. Up until 1996, there were few ITO students enrolled in PTEs as ITOs were required to purchase from polytechnics. The numbers increased significantly, however, when the restriction was lifted at the beginning of 1996. While there is under-reporting of the numbers involved, in 2000, PTEs enrolled at least 42 per cent of ITO funded students and received $18 million of industry training funding, 61 per cent of the amount that ITOs spent on off-job training (Education Directions Ltd, 2001). The growth of PTEs led to some valuable initiatives, but also, arguably, to variations in the quality of training provided.38

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38 In response to funding and quality issues, the government announced a moratorium on new and existing PTEs in 2001 (Rushworth, 2001).
Equity

While the increasing numbers taking part in structured industry training were encouraging, there remained areas of concern. Despite much effort over the preceding years to attract women into non-traditional occupations, they remained substantially under-represented in industry training. Of the 42,799 industry trainees at March 1998, only 16 per cent were women (Skill New Zealand, 1998a). Several long-standing trends helped account for this (National Advisory Council on the Employment of Women, 1994). First, women were over-represented in both part-time and casual work. Second, many were employed in the service sector, which had less developed systematic training arrangements. Third, two of the areas where women’s employment was concentrated, the health and education sectors, although well catered for with tertiary education, did not have industry training organisation coverage. As at June 2002, women represented 47 per cent of the labour force, but only 23 per cent of industry trainees (Skill New Zealand, 2002a). This figure included women in the ‘traditional’ hairdressing industry.

In 2001, Maori made up 17 per cent of all industry trainees, compared with 11 per cent in June 1996 (Skill New Zealand, 2001c, 2002e). Despite the relatively high participation level (Maori comprised approximately ten per cent of the workforce), Maori trainees were concentrated in a small number of industries, notably seafood and forestry (Department of Labour, 2001). The proportion of Pacific peoples in industry training rose to five per cent in 2001 from two per cent in June 1996 (Skill New Zealand, 2001c, 2002e).

The relatively low numbers of young people taking part in structured industry training was of particular concern, especially in light of high rates of youth unemployment. Since 1992, employers had tended to put more emphasis on training current workers rather than taking on young people, rewarding perhaps the loyalty and familiarity of older workers in a restrictive economic situation (Murray, 2001, p.230). While learning throughout the lifespan was a policy goal, there were clearly barriers to young people accessing industry training. In December 1999, only 10 per cent of industry trainees were aged 16 to 19 and only 24 per cent were aged 20 to 24 (Skill New Zealand, 2000). The figures had worsened by 2001, when only 8.5 per cent of industry trainees were aged 15 to 19 and over 50 per cent were aged 30 years and over (Skill New Zealand, 2002c). These figures reflected several wider trends, such as the increasing emphasis on tertiary education, the loss of
significant numbers of apprenticeship positions with the restructuring and privatisation of
government departments from the late 1980s, and the marked decline in the traditional
apprenticeship industries (Higgins & Dalziel, 2002).

The funding and delivery of industry training aside, there remained throughout the 1990s a
shortage of skilled workers. The contraction of the economy after the 1987 stock market
crash translated to a contraction in training, exacerbated by the decimation of the public
sector, which in the past had helped to level out falls in private sector training:

The handling of this crisis has been a disaster. When we finally got the new
training regime up and running... it was too late. We had lost one-eighth of
the previously trained skilled workforce and not replaced them by 1991
(Henderson, 1997).

Skill shortages were identified, for example, in the main centres in 1995 (Shelton, 1995), in
the telecommunications industry in 1996 (Rubens, 1996), and in the retail, small
engineering and manufacturing, clothing and building trades in 1997 (Henderson, 1997).
The December 1999 Quarterly Survey of Business, conducted by the NZIER, found that 35
per cent of firms were finding it more difficult than previously to find skilled labour (Skill
New Zealand, 2000).

Thus, while the Industry Training Strategy had many successes, notably in increasing the
numbers involved in industry training, there were problems with funding and with the
delivery of off-job training. The voluntaristic nature of the government’s industry training
policies led in some cases to a proliferation of providers, uncertainty in the trade training
sector, and a financial incentive to industries to minimise the amount of formal, off-job
training offered to trainees. There were also gaps in coverage, and equity issues. And as the
economy began to strengthen in the late 1990s, skill shortages became apparent in many
areas, exposing where training had been neglected or had disappeared altogether:

The free market again, you know, the Bill Birch philosophy, ‘Oh if people
need it, they’ll pay for it’... sorry, doesn’t work like that in industry
training... it’s all about perceptions, you know... when the government said,
back in the late ‘80s, ‘We’re repealing the Apprenticeship Act, we’re
getting rid of the Additional Apprentice Incentive Scheme, we’re getting rid
of this, we’re getting rid of that, and you guys can go away and run your
own industry training systems, and don’t come and complain to us, we’ve
given you the framework, there’s your industry training organisation, we’ve
funded that, go away and do it'... well, what's industry? Joe Bloggs down there, small business, sees in the paper, 'Government repeals industry training, blah blah, no more funding, no more...' – thinks, 'Sod them!'... that's the way they feel, 'cos it costs money to train (Interview with ITO official; respondent's emphasis).

4.8 The policy response: Modern Apprenticeships

Background to policy development

The weaknesses and gaps in industry training were recognised by a revitalised Labour Party in the build-up to the 1999 election. Piercy (2002) traced the influence of the union movement on the development of Labour's training strategy. The New Zealand Engineers' Union, influenced through the late 1980s and early 1990s by its Australian counterpart, had become increasingly aware of the need to eschew wage militancy in favour of an emphasis on flexible work practices and the upskilling of its members. There was a "recognition of the need to change from a traditional 'antagonistic' relationship with capital to one that incorporated [a] European productivist orientation" (Piercy, 1999, p.134).

Education and training thus became a major strategy of the both the Engineers' Union and the New Zealand Council of Trade Unions. Despite the decimation of the union movement by the Employment Contracts Act 1991 and the effective marginalisation of the union viewpoint by the National Government, the union movement continued to argue, in publications such as Building Better Skills (1993), for a "high-skilled, high waged economy... based on a general increase in jobs and skills" (NZCTU, 1993b, p.4). Increasingly side-lined by the ideologically-driven National Government, the union movement shifted its focus to the more receptive Labour Party, which had rebranded itself in an attempt to shed its 1980s neo-liberal image (Piercy, 2002).

The Labour Party in the late 1990s had "sharpened its understanding of the limitations of [the] facilitative, voluntarist model [of industry training] and was more inclined to a legislative, semi-regulatory approach coupled with a more pronounced... notion of partnership" (Piercy, 2002, p.9). The emerging rhetoric was that of the 'third way'; a social democratic bridle thrown over the capitalist stallion, harnessing the energy, but allowing
some direction to be given and the excesses to be reined-in. ‘Third way’ ideas were placed in the New Zealand context in The new politics: The third way in New Zealand (1999), co-authored by union and academic writers with close links to the Labour Party (Piercy, 2002). Thus, Labour’s training strategy prior to the 1999 election, spelled out in 21st Century Skills (1999), was couched in terms of both a high-skill, high-wage economy, and of a more hands-on role for government. This was recognised and welcomed by several of the respondents:

*I’m very pleased that the present government has decided to invest some money in restoring in the public mind and industry’s mind, the fact that apprenticeships exist, because it is what we’ve got. They didn’t throw away the apprenticeship system, but everybody thought they had. So we’ve had a massive bad, negative effect on New Zealand industry and thus our economy and every person’s well-being in this country. So, in the sense that it was long overdue, that the government put its hands back on the reins, in some respects, I welcome it. What has happened of course, is that there is a fair bit of political gamesmanship in this, in that the government wanted to score, you know, understandably, some brownie points in the public mind* (Interview with ITO official; respondent’s emphasis).

The strategy was clearly designed to reinvigorate Labour’s standing among one of its most important traditional bases, the trade union movement:

*A Labour Government will forge a new compact with workers. We will guarantee that workers will receive the best possible education and training at the start of their working lives and have the ability to upskill and retrain throughout life* (Labour Party, 1999).

Labour’s training strategy signposted greater contiguity between school and work with, for example, an expanded careers service, and the Gateway programme, which was to link young people with workplaces while they were still at school. The main thrusts of the strategy, however, were a revamped Industry Training Act, with a rationalisation of the number of ITOs, mechanisms for industry levies to finance the function of ITOs, and a partnership role for workers and their representatives. The flagship policy was the Modern Apprenticeships programme, which is the focus of the remainder of this chapter (Labour Party, 1999).

The format chosen to ‘revive’ apprenticeship had parallels with ‘Modern Apprenticeship’, introduced in the UK in 1994 (Maguire, 1998), and the ‘New Apprenticeships’ scheme, introduced in Australia in 1998 (NCVER, 2001). In the UK, the Conservative Government,
in response to the issues outlined in Chapter Two (pp.35-36), introduced Modern Apprenticeship, “a bold attempt to show that the UK could construct a work-based programme on a par with the best in Europe” (Fuller & Unwin, 2003, p.7). The programme, targeting 16 to 24 year olds, aimed to differentiate itself from earlier youth training schemes by being industry, rather government, organised, and by having a more stringent qualification focus. As in New Zealand, it was hoped that the reclamation of the word ‘apprenticeship’ would tap into positive connotations surrounding the term.

In New Zealand, two group training schemes, for the electrical and the engineering industries, also provided ideas for the shape of the scheme (Clark, 2000). Apprentice Training New Zealand (ATNZ), a group training scheme for engineering apprentices, which began in the Hawkes Bay in 1992, was one model, as was the Electrical Training Company, formed in the early 1990s by the Electrical Contractors Association (Ecanz) to counter a significant down-turn in the number of tradespeople. The Christchurch Polytechnic EFTS-funded auto-mechanic apprenticeship scheme, which had mentors and three-monthly ‘check-ups’, was another source of ideas. The detail of the Modern Apprenticeships policy was refined by a Modern Apprenticeships reference group, comprising employer, union, training provider and ITO representatives, and supported by Skill New Zealand staff (Industry Training Federation, 2000).

Despite the increasing emphasis on tertiary education, the notion of ‘getting a trade’, via an apprenticeship, remains a strongly-held aspiration for many young people and their families. The word ‘apprenticeship’ embodies for many a potent mix of skill, respectability and career security, which news of the Modern Apprenticeships proposal very successfully tapped into. Little surprise, then, to hear the comments of the Prime Minister, Helen Clark, in March 2000:

What I know is that whenever I mentioned during the election campaign that Labour in government wanted to get more young people into apprenticeships, the applause nearly brought the house down (Clark, 2000).

39 Interview with training provider official.
40 ETSA was renamed ‘Skill New Zealand’ in 1998.
Policy details

Modern Apprenticeships are administered by Skill New Zealand. They provide systematic, high quality workplace learning; are aimed primarily at sixteen to twenty-one year olds; are based on a training agreement, signed off by employer and apprentice; lead to national qualifications at Levels 3 and 4 on the national qualifications framework; cover generic and specific skills; extend apprenticeship to non-traditional industries; and complement existing education/training options (Skill New Zealand, 2001d). The essence of the programme is the appointment of Modern Apprenticeships Co-ordinators, who recruit and place apprentices, support and facilitate their training, and mentor them. Co-ordinating organisations may be industry training organisations, polytechnics, private training establishments or community-based organisations, and the coverage of those organisations may be national, regional, or local. Apprentices may be employed directly by an employer or, in some industries, by a group training scheme. It was hoped that the use of co-ordinators would remove some of the barriers to employers of taking on a young apprentice by reducing the costs and risks that employers face. The number of Modern Apprentices increased rapidly from its inception, from less than 500 during the pilot phase to 5739 as at 30 June 2003 (McGregor & Gray, 2003).

4.9 Critique of the Modern Apprenticeships programme

The intent of Modern Apprenticeships is laudable. An increase in the number of young people in structured training helps develop the skill base of New Zealand, and provides the social benefit of a formalised transition route, without the young person accruing a student loan! The appointment of co-ordinators relieves some of the stress and costs to an employer in having an apprentice, and ensures the apprentice makes appropriate progress:

*How we run the Modern Apprenticeship is that they get... there’s four visits a year, and so that’s the advantage, the big advantage to the trainee, is the goal setting. I’ll go onto the farm, that Modern Apprenticeships farm, and sit round that kitchen table with the farmer, the trainee, and myself. We set goals each quarter, and then come in the following quarter and review those, and just see how they went* (Interview with agriculture ITO official).
The reclamation of the term 'apprenticeship' not only revalidates an age-old method of training, but also has the potential to improve the status of the trades and industry in general, and of the work-based training route:

_It's hundreds of years old... and it's a very fine training system. You take somebody and you sit them alongside somebody else on the job, there is no better way, for most people, of studying and learning a trade. I mean, trades are very much about hands-on skills. Obviously, depending on what trade you talk to or look at, there's a level of intellectual input, but... no amount of training in an institution provider can replicate in real terms the experience that people get on the job_ (Interview with ITO official).

Nevertheless, there are several concerns that may pose a threat to the sustainability of the programme. At its core, Modern Apprenticeships is essentially a demand-driven policy, reliant on employers taking on apprentices. Some of the refinements to the traditional apprenticeship system, in particular, the use of co-ordinators, may blunt the imperative to contract training if the economy tightens, as co-ordinators may able to ‘sell’ the benefits of maintaining training levels. While the decision to train is not based wholly on economic factors, I would argue that the ‘training culture’ has yet to be cemented sufficiently into New Zealand to counter the perennial problem of the cyclic nature of training. The Modern Apprenticeships scheme, moreover, has been introduced during a time of labour demand and skill shortages, and therefore remains to be proven as a policy that will lead to sustainable and even skill development.

Funding

As an election flagship policy, Modern Apprenticeships was well funded. The initial investment was $42.2 million for the four years beginning mid-2000, which was to service a target number of 3000 Modern Apprentices by the end of 2002 (Maharey, 2000). In the 2002 budget, an extra $41 million, spread over the following four years, was announced, with the aim of doubling the number of Modern Apprentices to 6000 by December 2003 (Ministry of Education, 2002b). Skill New Zealand expected to have 7500 Modern Apprentices by June 2006 (Skill New Zealand, 2002a). The bulk of this funding is paid to Modern Apprenticeships co-ordinating organisations, which are funded at a rate of around $2000 per apprentice per year (Skill New Zealand, 2001a).
While the worth of this expenditure in providing administrative support to ease the employer’s load, and to mentor the apprentice, is acknowledged, it must also be noted that none of this money is explicitly spent on actual training, or assessment, either on or off-job. The blanket nature of the rate also does not take into account differences in the nature of the industry. Industries with well-established training networks should logically require less support than those where the network must be developed by the co-ordinators. Neither does it consider industry size, as economies of scale may be possible in industries where there are a larger number of apprentices. Finally, it fails to consider the nature of the co-ordinating organisation, which has an impact on the range of co-ordinating duties that are required. For example, it would be reasonable to expect that polytechnics would have to spend less time recruiting apprentices, as they have a catchment of young people who make contact with them:

_The polytechnics are coming on board when the company has found their apprentice, and they’re not actually finding the apprentice for the company. You know, the companies go the polytechnic and say, ‘We need an apprentice’ and they say, ‘Well, we’ve got one, guys on our course’, and those guys are paying $2800 to be on that course, so they’re getting $2800 from the apprentice for the pre-apprenticeship course, they get $2000...odd dollars from the government for being a Modern Apprenticeship co-ordinator, and then go out and charge the companies to do assessment. It’s a great cash cow for them, for the polytechnics_ (Interview with group training company official).

Conversely, a regional co-ordinating organisation, operating in a non-traditional industry, may have to expend enormous energy in attracting recruits. These factors were identified in the evaluation of the Modern Apprenticeships pilots: “Some significant variations in co-ordinator cost structures were noted”, as was the difficulty in establishing appropriate co-ordinator to apprentice ratios⁴¹ (Skill New Zealand, 2001a, p.32).

The deadweight factor, that is, the extent to which a subsidy (albeit indirect in this case) is utilised without the targeted behaviour being changed, must also be assessed. Particularly in industries with well-established training networks, Modern Apprenticeships may be used to ease the administrative load of employers, rather than to create new training places. While Modern Apprenticeships does not provide the same sort of direct subsidy to employers as the discontinued Skill Start incentive, the paper-work associated with a trainee is such that

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⁴¹ Suggested ratios ranged from 1:30 to 1:60 (Skill New Zealand, 2001a).
the time saved through the use of a co-ordinator could amount to a significant saving for
employers.\[^42\] It is not argued that this is necessarily a bad thing, but it does raise the
question of the extent to which Modern Apprenticeships extends training:

_We were never paid to do it [administer apprentices], now somebody else is
getting paid to do what we were doing anyway! But there is no incentive for
us to employ more people_ (Interview with employer, medium-sized
business; respondent's emphasis).

**Organisation**

Industry training in New Zealand is a complicated mystery to many employers, particularly
those with small businesses. Modern Apprenticeships co-ordinators in the pilot phase found
‘a lack of knowledge among some employers about competency-based training and the
national qualifications framework, even in those industries which had a history of
involvement in industry training’ (Skill New Zealand, 2001a, p.14). This lack of awareness
was mentioned by several of the respondents:

_The framework's been here for over 10 years now, and there's still a lot of
misunderstandings; a lot of small companies just don't understand how unit
standards works, how the qualifications framework works_ (Interview with
manager, engineering company).

While there is no doubt that the attraction of a Modern Apprenticeships co-ordinator who
would take over much of the paper-work is compelling, having yet another route to industry
qualifications may serve to obfuscate the process even further. Employers may find they are
being solicited to provide employment for apprentices by several organisations. A Modern
Apprenticeships co-ordinator, talking about a fellow co-ordinator, explained:

_He is a Modern Apprenticeships co-ordinator, which creates a problem for
me, as well as I create a problem for him, because the government have laid
down that there will be no...what's the word I'm looking for...fighting or,
you know what I mean, in between us, and it got very, very mucky right at
the beginning, because I was getting a situation where I was very open to
him, and I was saying, 'I'm doing this, and I'm doing that', and the next
thing I know, he's visiting the people I knew and trying to talk them round
to his way_ (Interview with polytechnic official; also a Modern
Apprenticeships co-ordinator).

\[^42\] When Business New Zealand calculated the impact of the Labour/Alliance Government’s business policies
on a typical medium-sized business over a three-year period, the savings made by taking on an Modern
Apprentice ($5500) were one of the few savings in a total cost to the business of various policies estimated at
Young people may favour one training route, because it includes the term ‘apprenticeship’, when another equally legitimate route, resulting in the same qualification, is also offered:

*We put all our trainees onto Level 2 initially, to gauge their ability, and if we feel as though they are achieving, then we offer them that opportunity, to go onto the Modern Apprenticeship, and our Modern Apprenticeships is worked around the Level 4, not the Level 2, so when they take on the Modern Apprenticeship, they take on the Level 4 qualification. So exactly the same qualification, but they’ve got that endorsement that when they complete it, that they’ve been a Modern Apprentice and gone through that system* (Interview with agriculture ITO official).

Many of the activities performed by Modern Apprenticeships co-ordinators were already attempted by ITOs, whose only constraint was lack of funding:

*They’ve brought in this Modern Apprenticeship thing, and all...the predominant focus of that is exactly what we do...but we’re not deemed as being a ‘Modern Apprenticeship’. We’ve got the age group that they’re looking at, we’ve got the women that they wanted to bring in; we’ve got regional people that go out and look after them...So that’s a battle...when you know that there’s ‘x’ amount of funding that’s thrown at a Modern Apprenticeship scheme, and we get this much funding for the same job* (Interview with hairdressing ITO official).

In some industries, funding could perhaps be as effectively channeled through already established and proven industry organisations, without the addition of another layer of bureaucracy:

*The money, in many instances, would have been better put...and funded directly through the ITOs, for a whole lot of reasons. In some industries, and including ours, we’ve replicated what was already being done, or the ITO couldn’t do because it wasn’t resourced, such as having people out there* (Interview with ITO official).

It was interesting to observe, for example, that the Electrotechnology Industry Training Organisation (ETTTO) introduced five regional Apprentice Co-ordinators (ETTTO, 2002). The Co-ordinators’ main focus was the moderation of assessors, but the extension of this model to regular co-ordinating visits to all trainees (as opposed to only those on the Modern Apprenticeships programme) would not be difficult to imagine.

While the establishment of a ‘high value, prestigious education pathway’ is one of the goals of the Modern Apprenticeships policy (and the value of this goal is not in dispute), it is of concern that the implementation of the policy could be unintentionally divisive. Trainees
within the same firm may resent the extra resources available to a Modern Apprentice, if they are working towards a similar qualification. The distinction may also become apparent between trainees from different firms during off-job training. At the wider level, a 'high-skills, high-wage' economy requires the eventual upskilling of most of the workforce; does the Modern Apprenticeships programme privilege a smaller group of trainees at the expense of industry training as a whole?

The extension of the apprenticeship model (albeit 'modern') to industries without a history of structured training also raises some issues. For example, Modern Apprenticeships in the wool industry took longer than planned to establish: “although training to national standards ha[d] been occurring, the concept of a three-year formalised commitment by the employer and young person [was] a new one given the transient nature of the workforce” (Skill New Zealand, 2001a, p.14). In both the United Kingdom and Australia, there has been a disparity in apprenticeship completion rates between the service and industrial sectors (Cleary, 2002; Ryan & Unwin, 2001; Steedman, 2001). Service sector industries, with less history of structured training and a more transient workforce, tend to have significantly lower completion rates. This signposts the need for careful monitoring as Modern Apprenticeships in New Zealand expands into areas such as tourism and hospitality.

Equity Issues

As at March 2003, only 6.2 percent (315) of the 5102 Modern Apprentices were women, little improved from 5 per cent at the same time in 2002 (Murray, 2002).43 A factor in this gender disparity was that trainees remained concentrated in what could be considered ‘traditional’ apprenticeship industries. Since the inception of Modern Apprenticeships, the largest eight industries (all with a history of apprenticeship training) have accounted for a steady two-thirds of trainees. As Table 4.1 (p.112) shows, as at 31 March 2003, those eight industries employed 67 per cent (3427) of all apprentices, but only 38 per cent (120) of all women Modern Apprentices. Conversely, nearly 30 per cent (86) of women apprentices were concentrated in just four industries: hospitality, public sector, retail and tourism,

43 In comparison, women make up 37 per cent of all New Apprentices in Australia. Part of the reason for this may be the incentive payment of $1,100 that employers receive for taking on women in non-traditional occupations, in addition to the standard incentives received for all apprentices (see Footnote 16) (Industry Training Federation, 2004a).
which employed a tiny 3.4 per cent (174) of all Modern Apprentices (Tertiary Education Commission, 2003b).

Table 4.1: Modern Apprentices as at 31 March 2003 (Tertiary Education Commission, 2003b)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total Modern Apprentices</th>
<th>No. of women</th>
<th>Women as a % of the total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>818</td>
<td>7</td>
<td>0.8%</td>
</tr>
<tr>
<td>Engineering</td>
<td>784</td>
<td>11</td>
<td>1.4%</td>
</tr>
<tr>
<td>Motor</td>
<td>764</td>
<td>20</td>
<td>2.6%</td>
</tr>
<tr>
<td>Electrotechnology</td>
<td>411</td>
<td>10</td>
<td>2.4%</td>
</tr>
<tr>
<td>Boating</td>
<td>229</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>Electricity Supply</td>
<td>167</td>
<td>13</td>
<td>7.8%</td>
</tr>
<tr>
<td>Bakery</td>
<td>143</td>
<td>40</td>
<td>28.0%</td>
</tr>
<tr>
<td>Printing</td>
<td>111</td>
<td>17</td>
<td>15.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3427</strong></td>
<td><strong>120</strong></td>
<td><strong>3.5%</strong></td>
</tr>
<tr>
<td><strong>(67%)</strong></td>
<td><strong>(38%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td>422</td>
<td>12</td>
<td>2.8%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>345</td>
<td>48</td>
<td>13.9%</td>
</tr>
<tr>
<td>Horticulture</td>
<td>272</td>
<td>41</td>
<td>15.1%</td>
</tr>
<tr>
<td><strong>Primary Industries</strong></td>
<td><strong>1039</strong></td>
<td><strong>101</strong></td>
<td><strong>9.7%</strong></td>
</tr>
<tr>
<td><strong>(20.7%)</strong></td>
<td><strong>(32.1%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other industries with 5 or more women Modern Apprentices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitality</td>
<td>94</td>
<td>31</td>
<td>33.0%</td>
</tr>
<tr>
<td>Public Sector</td>
<td>55</td>
<td>42</td>
<td>76.4%</td>
</tr>
<tr>
<td>Retail</td>
<td>14</td>
<td>6</td>
<td>42.8%</td>
</tr>
<tr>
<td>Tourism</td>
<td>11</td>
<td>7</td>
<td>63.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>174</strong></td>
<td><strong>86</strong></td>
<td><strong>49.4%</strong></td>
</tr>
<tr>
<td><strong>(3.4%)</strong></td>
<td><strong>(27.3%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other industries</td>
<td>462</td>
<td>8</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5102</strong></td>
<td><strong>315</strong></td>
<td><strong>6.2%</strong></td>
</tr>
</tbody>
</table>
Although the scheme is still in its infancy, if the trend for women apprentices to be concentrated in such service industries continues, there will be a need for careful monitoring, given the discrepancies in completion rates mentioned above. Neither is it equitable to rely on a broadening of industry range alone to increase the percentage of women. This was acknowledged in the evaluation of the pilot Modern Apprenticeships: “explicit strategies to ensure a fair representation of women will also be necessary” (Skill New Zealand, 2001a, p.28). As Connole (1997) argued, however, governments must cease designing “training arrangements for young men and then making unsatisfactory running repairs to the system to accommodate women and other equity groups” (Connole, 1997, p.1).

The field work revealed some interesting insights into the reasons behind the low numbers of women participating in Modern Apprenticeships. According to several respondents (all but one male), there were no actual barriers to women participating and their participation was encouraged. Those views, however, were almost always immediately qualified with doubts about women’s physical ability, concern about the reaction of their (largely) male colleagues, and a general feeling that the trade would not be of interest to women. The following quotation was typical:

*I have no problem with females going through, but the problem that we have with these groups is the younger ones, they’re at that age, you know, and to have a female in the group, ohh... and they’ll either take it on board, or they’ll... you know... I mean we had one guy coming through, ‘What are you doing here, you should be in the kitchen’, you know, those sort of remarks... he got short shrift and left. One of the biggest thing with most females is they’ve got no wrist strength, OK, and you need wrist strength, because when you’re tightening a chuck up, you don’t want what you’ve got in that chuck moving, so you need that strength. Now you can get around that, ‘cos it’s only torque, so all you do is you put a longer bar on, but you don’t want to over-tighten, so you have to be very careful with those sorts of things. But if they’re taught the right way, and they do the things the right way, they shouldn’t have too much problem* (Interview with polytechnic tutor, engineering industry).

Yet, as Cockburn (1999), writing about women in engineering, argued:

*Men’s greater average physical stature and strength are often cited as a reason for men’s preponderance in engineering occupations. Yet it is not self-evident that they should be all male. Many machines, from the lever to the mill, have been developed precisely to substitute for human physical strength* (Cockburn, 1999, p.127).
Also under-represented in Modern Apprenticeships were Pacific peoples who comprised only 1.9 per cent (96) of all Modern Apprentices as at 31 March 2003, compared with 6.5 per cent of the population at the 2001 census. While Maori were fairly represented per capita, comprising 14.3 per cent of Modern Apprentices (and 14.7 per cent of the population), the pattern found in general industry training, that is, the concentration of Maori in a small number of industries, was repeated. As at March 2003, for example, 26.2 per cent (196) of the 749 Maori Modern Apprenticeships were employed in forestry, representing 46.4 per cent of all the 422 forestry Modern Apprentices (Statistics New Zealand, 2003f; Tertiary Education Commission, 2003b). This is of particular concern given the ‘boom and bust’ nature of the forestry industry. From June to October 2003, for example, 2,700 forestry workers either lost their jobs or had their hours reduced as a result of an industry downturn (Brown, 2003).

Equity aims were mentioned in the statutory basis for Modern Apprenticeships, the Modern Apprenticeship Training Act 2000, and were made explicit in the evaluation process: “Skill New Zealand is currently working on participation strategies that not only involve a wider group of emerging industries, but that also seek to understand and address traditional gender segmentation in existing industries” (Skill New Zealand, 2002a, p.18). There is, however, an ongoing tension between the economic and social goals of industry training policies. Given that the quantity and quality of industry training is determined largely by the decisions of individual employers, the achievement of equitable outcomes relies upon policy that strikes the right balance between prescription and more subtle attempts to modify employers’ decision-making processes. This was recognised by one respondent:

*The difficulty is when government then says, ‘We want this public policy outcome, umm... we want more women in mining’... forget it! Or, ‘We want more Maori involved in this particular industry’, where, in fact, Maori aren’t. They have to look at the whole system and say... you need a co-incidence of the industry actually... I think government will still get significant investment from industry if it continues to say to industry, This is your strategy – you take it where you want, but in doing so, don’t forget that we are always going to want certain outcomes, and if we can’t get those outcomes, then we will not invest’ (Interview with industry training official).

The Modern Apprenticeships programme is at one level a pragmatic attempt to address both an important gap in the provision of training options for young people, and to alleviate
skill shortages. At another level, it is an attempt to bolster the importance of skill acquisition for New Zealand as a whole; servicing the ‘knowledge society’. Whether the programme is a sustainable means to achieve these ends is questionable, however, first because of some inconsistencies in the programme itself, and second, because historically, the best indicator of training provision in New Zealand has been the state of the economy.

Currently, the economy is relatively buoyant and skilled workers in high demand. Indeed, in May 2004, the Industry Training Federation argued that, in spite of the allocation in the 2004 budget of 500 extra Modern Apprenticeships places (bringing the total number to 8,000 in 2006), Modern Apprenticeships had generated a demand that the current level of funding could not meet; that the programme was a “victim of its own success” (Hall, 2004, p.1). There appears to be little in the structure of Modern Apprenticeships, however, to counter the contraction in training that is likely to occur if economic conditions tighten.

4.10 Conclusion

In this chapter, I first traced the development and implementation of an industry-led industry training strategy. This strategy was developed in response to many inter-related pressures. The Fordist consensus that had underpinned the traditional apprenticeship system was long gone. Sweeping changes to the economy had a profound effect on the number of employers able to offer apprenticeships or, indeed, willing to commit to any form of training. Labour market changes, particularly in regard to the restructuring of the youth labour market, also called into question the appropriateness of apprenticeship as a means of training. The double-edged sword of technological advances allowed the deskilling of many jobs, but also delivered ‘high-tech’ opportunities. The neo-liberal ‘project’ saw deregulation and competition via the market flourish, setting the parameters for the shape of the new industry training strategy.

In the second part of this chapter, I examined the impacts of the new system. The voluntaristic nature of industry training resulted in concerns about equity issues and access to training; in wide variations between industries in the quantity and quality of training; and in a proliferation of training providers. These factors, coupled with a severe reduction in
training places because of recession and the loss of government departments, and an increasing emphasis on tertiary education for young people, combined to produce two effects. First, there were gaps and weaknesses in industry training that soon became apparent and, second, the number of young people taking part in industry training diminished considerably.

In the final part of the chapter, I analysed one response to these effects, the Modern Apprenticeship scheme. I traced the development of the scheme and analysed its impact, arguing that while its intent was laudable, there were concerns with both the sustainability and equity of the scheme.
PART TWO: CASE STUDIES

INTRODUCTION

In this section, I report on the four case study industries: engineering; electrical; hairdressing; and agriculture. These industries were chosen for a mix of pragmatic and theoretical reasons. At the practical level, in the best tradition of 'starting where you are', I had access to stakeholders in each industry, either through contacts made during previous research, or through personal acquaintance with industry 'gatekeepers' (Lofland & Lofland, 1995). At the theoretical level, although there are many commonalities between the industries, each allows an important component of the theoretical framework organising this work to be highlighted.

The nature of case study research ensures that this work is grounded in both time and space. Thus, the industries chosen provide a 'snapshot' of industry training issues in Canterbury in 2002 and 2003. Most respondents, however, exhibited a broad understanding of both the history of their industry and of its relation to both the national and international environment. Thus, I have chosen where appropriate to allow the respondents to 'speak'. Although they obviously did not use the technical jargon of sociological theory, there was in many cases a robust critical engagement with many of the ideas that have been canvassed in the theoretical section of this thesis. According to Strauss (1987), the 'classical' requirements in presenting case studies are to provide verstehen, credence, a sense of reality, and reader comprehension. My aim is to attempt to satisfy these requirements by presenting “tightly interwoven theoretical interpretation and descriptive data” (Strauss, 1987, p.217).

I begin the section by briefly describing the Canterbury region to provide an economic and social context for the case studies. I then explain case study methodology and justify its use in this research. I introduce the four case studies, outlining the shape of each chapter and describing the respondents. I end this introduction by highlighting some of the
commonalities between industries, in order to prevent repetition in the following chapters, each of which reports on a specific industry.

A:1 Canterbury

The Canterbury region covers a land area of 4.22 million hectares and is the largest of all the regions in New Zealand. It extends from the catchment of the Clarence River in the north to the Waitaki River catchment in the south, with the Main Divide forming the western boundary (see Figure A) (Local Government Online Ltd, 2003). The total population for the Canterbury region at the 2001 census was 481,431, an increase of 2.9 percent since 1996. In comparison, the population for New Zealand as a whole has increased by 3.3 percent since 1996 (Department of Statistics, 2003).

Figure A: Map of Canterbury (Christchurch and Canterbury Marketing Ltd, 2003)
The Canterbury economy was buoyant in the first years of the new millennium, with economic growth of 4.9 per cent in the year to March 2003 (following a similar level of growth in the preceding year). This growth was based upon agriculture, manufacturing (which employed 18 per cent of the 280,000 workers in the region), hospitality and tourism and a booming construction sector (Department of Labour, 2003b, 2003d).

A strong regional economy, however, was tempered by skill and labour shortages. In the year to June 2003 a net 45 per cent of firms reported difficulty in finding skilled staff, and 19 per cent in finding unskilled workers.¹ Key skill and labour shortages were identified with: skilled construction workers, aircraft and avionics engineers, licenced transport workers, hospitality industry workers, health service workers, and skilled manufacturing trade workers (Department of Labour, 2003b).

A:2 Case study methodology

According to Yin (1984), a case study is an “empirical inquiry that investigates a contemporary phenomenon within its real-life context, when the boundaries between the phenomenon and context are not clearly evident, and in which multiple sources of evidence are used” (Yin, 1984, p.23). Thus, in this research, the phenomenon is skill formation; the real-life contexts are the chosen industries; and the multiple sources of evidence are interviews, media sources and policy documents, historical data and other secondary sources. The reader will note that interview numbers differ between case studies. As the interviews undertaken were not the sole source of information, but rather provided colour and depth to the case studies, I did not attempt symmetry of respondents from each case study. The selection of respondents was at times constrained by availability, but in other cases, I interviewed what I felt was a sufficient number of respondents to illuminate the other data sources.

I have chosen to use multiple-case studies to increase the richness and robustness of the data. Yin (1984) made clear, however, that the use of multiple-case studies does not imply a ‘sampling’ of available cases. Rather, he argued, the logic underlying multiple-case studies

¹ These figures were for the South Island as a whole; approximately 60 per cent of survey responses were from the Canterbury-Marlborough region (Department of Labour, 2003b).
is that of replication: "each case must be carefully selected so that it either (a) predicts similar results (a literal replication) or (b) produces contrary results but for predictable reasons (a theoretical replication) (Yin, 1984, p.49). As will be seen, there are elements of both types of replication in evidence in the chosen case studies; there are many commonalities between cases, but also differences, the roots of which may be explained by reference to the broader theoretical framework.

A:3 The case studies

As discussed in Chapter Two, it is crucial to view the contemporary issues facing each industry within the broader trajectory of the industry’s historical development. In keeping with this, in the case study chapters, I first provide a historical overview of each industry and of how training within the industry has developed. It has neither been possible nor desirable to focus strictly on Canterbury in the historical sections. While regional differences are crucial, New Zealand is a small country and industrial development has occurred against a background of national government policies, which need to be considered. At a practical level, there was also little regionally-based information about two of the case study subjects - the electrical and the hairdressing industry.

In the second section of each case study chapter, I report on the data I gathered. The discussion in each case of the contemporary situation is therefore largely Canterbury-based. I provide an overview of the current status of the industry; outline the training regime and highlight significant issues for each industry. I end each chapter with an examination of the theoretical implications that arise, focusing on how skill formation in each industry might be understood in terms of the post-Fordist debate, as delineated in Chapter Two.

The engineering industry

Chapter Five examines the engineering industry. Of the four case studies, engineering is perhaps the most likely to exhibit many of the characteristics of the movement from Fordism to post-Fordism described in Chapter Two, particularly at the labour process level. Technology allowed a degree of deskilling, yet the position of the skilled (male) worker was protected by strong unions and the exclusionary apprenticeship system (Higgins,
The industry itself was ‘cossetted’ by government policies, so when the ‘crisis of Fordism’ hit, the combination of exposure to international competition, lagging technology and (from the mid-1980s) harsh government policies, impacted severely on the industry. Yet out of those ashes has arisen an industry that in some respects exemplifies the post-Fordist model or, more particularly, flexible specialisation. ‘Just-in-time’ manufacturing processes, the supply of specialised products to niche markets and multi-skilled ‘core workers’ are features of some of New Zealand’s engineering firms. Such a model must be applied carefully, however, with an awareness of many contradictions and exceptions.

Six interviews were carried out for the engineering industry case study. The respondents were:

- a manager of a large Canterbury engineering firm, who had a longstanding involvement with both the apprenticeship system and the development of ‘industry training’ in his industry;
- the works manager of another major South Island engineering firm. This firm was in the process of moving all its apprentices over to the Modern Apprenticeships scheme;
- a polytechnic engineering tutor, who was also a Modern Apprenticeships co-ordinator;
- the retired chief engineer of a large, export-oriented Canterbury engineering firm;
- a fitter and turner who currently works for the same firm;
- the training co-ordinator of a group training scheme, also a Modern Apprenticeships co-ordinator.

The electrical industry

Chapter Six examines the electrical industry. While there have obviously been technological developments in this industry over the years, they appear to have been less dramatic and to have had less influence on the shape of the industry than the changes in the engineering industry. Thus, there has been less potential for deskilling within the electrical industry; a wide range of skills are still required by the majority of electricians. Indeed, according to Higgins (1993), the strength of the occupation ensured the “in the 1970s electrical workers were able to incorporate the new skills associated with electronics within
their own occupational boundaries before electronics technicians could take control of these skills" (Higgins, 1993, p.307). At the theoretical level, what the electrical industry does illustrate well is the changes that neo-liberalism wrought upon the functions of the State, the impact of those changes upon the nature of the electrical workforce and the ramifications that this had for training.

Six interviews were carried out for the electrical industry case study, with several of the respondents wearing more than one 'hat'. The respondents were:

- the national president of one of the main industry employer organisations, who is also a director of one of the larger electrical contracting companies in New Zealand;
- the director of a Canterbury electrical contracting company, who served his apprenticeship in the 1970s with a government department;
- the contracts manager of the same company, who supervises that company's apprentices (who are now, where eligible, taken on under the auspices of Modern Apprenticeships);
- the training co-ordinator of an electrical group training company, also a Modern Apprenticeships co-ordinator;
- an industry training organisation official, who had a long history of involvement with both the 'old' apprenticeship system and the 'new' industry training regime;
- the (female) contracts manager of an electrical distribution company.

Hairdressing

Chapter Seven examines the hairdressing industry. Hairdressing has a long association with the apprenticeship model of training, although this was not formalised until the 1960s. The vast majority of women apprentices in the post-war years were hairdressers and it provided a route to self-employment for many women. The industry today continues to have a large number of small employers and owner-operators, facilitated by the comparative ease of opening a salon, with no specific requirement for operators to be trade registered. The industry has an anecdotal reputation for low wages and exploitation, which contribute (along with its high proportion of female workers) to image issues. The opening-up of the training market since the early 1990s has seen the development of many 'hairdressing colleges', which have widely varying degrees of credibility with industry professionals.
Five interviews were carried out for the hairdressing case study. The respondents were:

- an official from the national industry training organisation, with responsibility for moderation;
- a regional industry training organisation official;
- a tradeswoman employed in a local salon;
- a third-year apprentice, employed in the same salon;
- a first-year apprentice.

The agricultural industry
Chapter Eight examines the agricultural industry, where trade and workplace-based courses were introduced in the post-war years. A large proportion of farm workers, however, have not had access to formal training, for two main reasons. First, the nature of the workforce, mobile and often seasonal, limits the extent to which training is possible, or can be considered worthwhile by employers. Second, the history of family ownership (and family labour), and an emphasis on the 'practical', has tended to prejudice many farmers against formal workplace-based training. Recent emphasis on 'adding value' for export goods, and significant skill shortages have, however, brought training issues to the fore.

Chapter Eight draws upon several projects that have been, or are currently being, carried out by staff at Lincoln University, examining agricultural labour and skill issues. These will be described in greater detail in the chapter. Three interviews were carried out for the agriculture case study. The respondents were:

- a regional industry training organisation official;
- a local dairy farmer, with a large dairy conversion milking nearly 700 cows;
- a dairy farming trainee.

I also conducted an observation at an AgITO class and attended a Dairy Farm Staff Retention meeting, organised by ATR Solutions\(^2\) on behalf of Dairy InSight (see Chapter Eight, p.221).

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\(^2\) A human resource consultancy company specialising in the rural sector (Dairy InSight, 2004b).
A:4 Commonalities

The way in which the shape of this case study section has developed as it has been written has been interesting. I had imagined a very short introduction, followed by the case study chapters, each with a brief historical background and copious amounts of industry-specific data. As I began my analysis, however, two things became apparent. First, with regards to training, the industries had nearly as much in common as was distinctive; hence I have chosen to present in this introduction much of what was reported unanimously. Second, the relevance of the historical data, in particular the events of the late 1980s and early 1990s, became increasingly obvious. Indeed, the comments of many of the respondents focused on the early days of the industry training strategy as being vital to the current situation. Of course, the significance of the changes at that time can only be understood in relationship to what had occurred under the 'old' apprenticeship system and the wider background to the change to an employer-led system.

Why apprenticeship?

At the most basic level, it is important to question why each of the case study industries chose to retain the apprenticeship model of training. Given the pressures on the apprenticeship system and wide-ranging economic and social changes, why perpetuate a system designed in medieval times? I must admit that this was not a question I specifically asked; it was an unquestioned assumption on my part and, I would argue, on the part of many of my respondents, that despite the challenges to it, apprenticeship was the optimum means of training for these skilled trades. Yet, it would be relatively easy to imagine a different training system for each of the case studies: skill sets in both the engineering and electrical industries could potentially be split into highly skilled (trained through full-time diploma or degree courses) 46 and lowly skilled (basic on-job training) areas; hairdressers could be college-trained; as could agricultural workers. 47 Indeed, as will be in seen in the case study chapters, all of these types of training are present, to a degree. Yet, apprenticeship, or a variation thereof, remains the most common means of training.

46 In fact, a Bachelor of Applied Technology has been developed at UNITEC, "aimed at tradespeople who want to advance their thinking skills". Students can specialise in a variety of trades, as well as study other courses, such as project management ("Trading up with education," 2004, p.4).
47 Nursing provides an interesting example of an occupation that was taught largely via an apprenticeship model, but which moved in the 1980s to a full-time degree course.
Several reasons may be suggested for this. First, each of the occupations requires both theoretical and practical abilities, which are melded together to form unique skill sets. Neither is sufficient in isolation. Second, each occupation calls for judgement to be exercised. The experience and maturity required for this is best acquired over time, under the supervision of someone who has already gained that experience. Finally, the apprenticeship system contains within itself the seeds for its reproduction. The depth of the socialisation process ensures that many of those who have served an apprenticeship will feel a moral obligation to pass on their knowledge and skills in the same manner (Murray, 1999):

You talk about the main motivation... I guess the key thing is often if you've trained through an apprenticeship, you just believe that that's what you do (Interview with hairdressing ITO official; emphasis added).

Acceptance of competency-based qualifications

One of the most striking areas of agreement between the four case studies was a general acceptance of the benefits of competency or standards-based qualifications. While there were some grumbles about the details of unit standards – language, complexity, gaps in qualifications, and the review process, for example, most respondents were positive about the requirement for trainees to gain a full range of skills before the relevant qualification could be completed:

Quality of tradespeople? I think the new scheme, because... it identifies the skills required in the trade and basically a trainee does not complete his apprenticeship without having achieved those skills. It's very positive, I think it's good... in the old days, you went along to polytechnic couple of nights a week, sat your exams at the end of the year, and if you passed your exams, you served your time, you did your 8000 hours in the factory, you were deemed to be a qualified and skilled tradesperson – probably not often the case. Guys in our organisation were fortunate because we had the equipment, we had... they could get the experience. I'm sure there are lots of trainees that went through small engineering companies that sort of started off on a lathe and spent their whole 8000 hours on a lathe, and that was it (Interview with manager, engineering firm).

There were a variety of accommodations made in each industry to ensure the trainees were exposed to all the required skills and had assessment opportunities. In both the electrical and engineering industries, secondments to other firms were common, particularly for
trainees working for smaller employers. These could be arranged informally, through personal contacts; formally, through Modern Apprenticeships co-ordinators or industry links; or, for those trainees employed by group training companies, as part of the service offered by that company. Both the electrical and engineering industries would, if required, organise one-off courses through a training provider to offer ‘catch-up’ units not available in the workplace. The hairdressing ITO played a major role in ensuring that all units required were achieved. As with the other industries, there were issues with retaining a full range of skills, with a degree of resistance both from some employers and apprentices:

> Just about everybody you speak to says, ‘Oh why do we still have to do finger-waves and what-have-you’, but other people say, ‘Well that shows what you can do’ (Interview with regional hairdressing ITO official).

**Concerns with assessment**

**Unit standards**

While there was a general agreement that standards-based qualifications were desirable, difficulties with the assessment of those qualification were mentioned in each of the case studies. One issue was the material provided for assessment:

> Basically the problem was that the training manual is very much a document that suited the Qualifications Authority, written in their language, it’s written... it’s very much set out in, the way they want it, not the way industry needs, needed to understand it. You know, assessment guides that were created by the people that created unit standards, back at the start, and no-one really had any idea what they were doing... um, we still have them, and five years ago we said that we wanted assessment guides that were useful, and that a guy could sit down with his trainee and actually make some meaningful sense out of it. But our assessment guides... well, for a kick off, there’s no logic in the way the unit standards are set out, they’re not even numerical when you get the manual. The assessment guides, that’s what you’re supposed to be assessing the unit standards on, and they’re so generic, they’re so full of, well, basically crap, that they repeat themselves, they’re not useful, and the way they’re laid out, again, it was done for NZQA and the way they like to see them done (Interview with manager, engineering firm).

Capper (1999) provided insight into some of the deeper attitudes behind such disapproval on the part of the respondents: “There is a significant gap between the policy informed assumptions of those that design qualifications systems and the practical assumptions about those same systems of those in the workplace” (Capper, 1999, p.13). He argued that the
(politically-based) rationale of many educationalists in the development of qualifications was that they be ‘valid, consistent, comparable and portable’, whereas, for those assessing in the workplace, the only concern was “competent performance in the context of their own workplace...[often leading to]...discarding those elements which related to the concerns of educators and the imperatives of a national qualifications framework” (Capper, 1999, pp.15-16).48

Cost
A second issue with assessment is that it can be an expensive process. While training providers continue in the main to assess the theoretical aspects, assessment of the practical, workplace-based standards require firms to either have accredited assessors, or to contract outside assessors:

The companies pay for it, so there’s a cost involved, so you’ve got one or the other, you either pay for someone to do it, or you do it yourself. But in the engineering trades, like machining and tool making, which is where the bulk of our apprentices, there are...we’re pretty limited to the assessor we can bring in. We can actually contract the polytechnic to do some, but it’s very expensive, quite prohibitively expensive, so you do turn around and try to do it yourself...in your own time, which is hard...when you’re busy trying to keep that customer satisfied. It is, it is very difficult, extremely difficult (Interview with manager, engineering firm).

Firms, however, must weigh the costs of bringing in outside assessors with the cost (both actual and opportunity) and effort involved in training for and carrying out their own assessment.

‘Time’ versus ‘competency’
Another facet of assessment mentioned was the time required to complete the qualification. One of the rationales behind the move to the national qualifications framework, and standards-based assessment, was to end the notion of ‘time-serving’ and to ensure that a full range of skills, or competencies, were taught, as discussed above. Nevertheless, several respondents indicated that merely having the ability to ‘pass’ the unit standards was insufficient; experience, judgement and maturity were only acquired through time spent ‘on the job’:

48 See Chapter Two, p.23, for more discussion of the assumptions behind the national qualifications framework.
The guy can tick them [skills] off, and he can be very competent, but he still needs to spend a period of time. You can't be an experienced...you can't be time-experienced...I think there's probably a reluctance in the industry to push these people through in two years, because they might be really good at doing that job today, but you need to be just a bit more experienced (Interview with director, electrical company).

There's a couple of guys who want to sort of fast track it; the apprenticeship used to be like four years, and now with this Modern Apprenticeships scheme, some of the kids think they can do it faster, but I always slow them down and make sure that they take the actual time, because a lot of the things you just can't speed up (Interview with contracts manager, electrical company).

One of the defining elements of apprenticeship, also requiring 'time', is the rehearsal of basic skills until they become automatic (Murray, 1999):

We introduced the ‘collection of evidence’ model, where the training providers request that they [the apprentice] can do that particular task, and they have evidence of it, that they can do that particular task a number of times to the standard required...So they need to provide evidence that they can do it to the standard, without supervision, well so far as no one actually helping them do the task, within time frames, so it’s confirming that it’s more repeatable (Interview with hairdressing ITO official).

If they’re on an apprenticeship, they’re slowly, gradually, moving up the scale of things in the salon, and they’re repeatedly doing it in the salon, so it actually sinks into them. Takes a lot longer (Interview with regional hairdressing ITO official).

Capper (1999) explained that gaining expertise through this type of repetitive learning is one of the core assumptions of the traditional model of skill and competence. This model of skill, based on Plato’s definition: “becoming adept at doing something by the application of knowledge refined through experience”, assumes that expertise is universal and homogenous; is rooted in the individual; is generally consistent and invariable; and is gained through repeated practice (Capper, 1999, p.2). This model, however, has been critiqued as being essentially conservative. This has consequences for workplace assessment, it is argued, because as skills are viewed as ‘belonging’ to the individual, and are passed on in an expert-to-novice manner, the “existing power holder [the expert] has an interest in maintaining that model of skill” (Capper, 1999, p.3). Thus, it is argued,
innovation and responsiveness to novelty are stifled: “qualifications based on the current situation may simply reflect and reproduce existing weaknesses” (Grugulis, 2003, p.458).

There appeared to be, however, little evidence in the case studies to support this argument. Indeed, I would argue that what in many cases has been ‘conserved’ is the imperative to promulgate knowledge; but the shape of the skills transmitted may be as flexible as is required.

The difficulties faced by small to medium-sized enterprises (SMEs)

In all four case studies there was recognition of the reluctance of many smaller firms to engage in training and the difficulties that produced this reluctance:

You’ll get a different feeling if you’re interviewing a one-person electrical contractor; he wouldn’t care and it wouldn’t be seen as his problem... People like that, a one-man band could never need, in their own mind, to grow bigger, or have no desire to get bigger. They probably don’t mind if there’s nobody training, ‘cos they’re always just going to be working on their own. It’s when you get to a company that’s got two or three people, that wants to get bigger, they look around and say, ‘I wish I could take on an apprentice’, but it’s too expensive for them to do it, it’s too big a risk. They’re the ones that need to get together and say, ‘Well, I want someone now, I want to take them on so that they can work for me and generate income’, so it’s a bit of a mindset (Interview with director, electrical company).

In the engineering industry, for example, the growing numbers of small firms who contract or tender for maintenance work tend not to have the capacity to train (Stonyer & Marshall, 2002). As one respondent said:

I think it’s a good idea, because... especially for smaller companies, smaller companies have shied away from apprentices over the last five years. I can’t blame them. I’ve had guys ring me up, and I say, ‘Don’t try and do it yourself, it’s just not worth it’. I say, ‘Go through polytechnic or go through Apprentice Training New Zealand’. I have employers ring me up, and that’s what I’ve told them, because I know, if I was a small employer, there’s no way that I’d even look at doing myself. Too expensive, too time consuming, and you couldn’t get your head around it for one apprentice anyway. It would just drive you nuts (Interview with works manager, engineering firm).

Group training companies in both the electrical and the engineering industry are of some help in overcoming this problem. The barriers to training experienced by SMEs are explored in greater depth in Chapter Nine.
The cyclic nature of the economy

The sensitivity of training levels to economic conditions cannot be over-emphasised. In two of the cases studies, in particular, the cyclic nature of skill demand was seen as a potential problem. If firms are busy, they will take on more apprentices:

"Yeah, we’ve got about... (only because we’ve got a bit of a labour shortage)... we’ve got about three of them [group training company apprentices]... and it’s only because there isn’t enough licensed electricians that we have got probably more boys than we would normally have anyway" (Interview with contracts manager, electrical firm; emphasis added).

However, even in firms with a stated commitment to training, and despite the awareness of the repercussions of contracting training, there comes a point at which it is not seen as possible to afford apprentices:

[We] believe that we owe the industry something, that we’ve always had a policy that we take on at least one, if not two apprentices per year, and have done so for the last 15 years. However, there were times when that was difficult, you know, when we didn’t have enough work, when we were struggling cash flow-wise... and we did drop it off one year ‘cos we were, you know, struggling (Interview with director, electrical company).

"Normally we would probably take on four a year, two at the beginning and two at the end, um, we’ve just got such a heavy workload, that our apprentices, we’re down to about six apprentices now, and we should be 12 to 14 sort of thing, so we’re trying to build that up as well... last year we had a pretty tough year and the work wasn’t there, so we didn’t take on apprentices last year – but that’s quite unusual for us. So we’re just building back up this year" (Interview with works manager, engineering industry).

Several respondents were quite aware of the paradox of cutting apprentice intakes in tight economic conditions, and then bemoaning the lack of staff as work-loads increased.

Both the electrical and the engineering industry have group training companies, which employ apprentices and hire them out to firms. This was viewed as an excellent arrangement, removing much of the administrative commitment from the individual employers and allowing them to modify their staff levels as their workload altered. Concern was expressed, however, at what would occur if the economy tightened:

"The only problem could be, if the whole economy had a downturn, the electrical industry might have 200 young men, or whatever, that they’ve got..."
to place somewhere. Now, we’ve been talking a lot, since the day it started, how big do we want to get? What if the industry, or the economy, shags, where are we going to place all these people? (Interview with electrical industry official).

At the moment there’s this huge need for trainees, and with the free fee system at the moment and the Linwood High, there’s actually something like 70 to 80 potential trainees being pumped out at the moment and they’re being absorbed into industry quite easily, but you’d have to say that in another three or four years, that number of trainees coming through, which is more than probably what we’ve had for a long time, we’re going to reach saturation point – it’s very cyclic (Interview with manager, engineering firm).

The importance of social networks

There was clear evidence in all of the case studies of the importance of informal networks in facilitating and maintaining training:

I mean it’s a pretty incestuous wee industry, everybody knows everybody, and you can talk to them, and they’ll say, ‘Oh, he was really good, or he’s probably more inclined to do...’ (Interview with contracts manager, electrical company).

Well, yes, because I’m like I said, a dinosaur, I’ve been around so long, people know me very, very well, and yeah, I think a lot of people consult with me...there’s a vast networking that goes on, and people become very comfortable phoning up for advice, and a friendly word, and, ‘How do we deal with this?’...and I’ve had vast experience, and dealt with thousands and thousands of apprentices, so I’ve had vast experience in helping people sort this sort of stuff out (Interview with electrical ITO official).

This web of social reciprocity is an interesting counterpoint to the quasi-market and contractualist basis that has underpinned industry training in New Zealand. The neo-liberal changes since 1984 saw the adoption of “output measures, contestability, and financial performance initiatives in the management of publicly funded services [and] the emergence of contractualism, [supposedly] reducing the cost of the service, improving the quality of the service, and providing a means through which the State is better able to influence the outcomes of its interventions” (Strathdee & Hughes, 2000, p.132). This contractual arm of the neo-liberal project aimed to supplant relations based on a “shared social ethic or consensus” with “technocratic managerial systems...based on rules and regulations”

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49 A local high school that runs a pre-apprenticeship engineering academy (see Chapter Five, p.154).
Ironically, in the future it may be the ostensibly banished 'social ethic' that is able to maintain levels of training if the economy tightens:

[If workload drops off] I can say, 'Righto guys, I've looked after you through your real busy times, let's see what we can do about cranking these guys up, and see what we can do'. I've built up relationships with the [employers] that if I ever felt that I was really in the shit, I would use (Interview with training co-ordinator, electrical group training company).

We take an interest [in trainees who have been made redundant], and we try, as much as we can, because we're a training organisation, our focus is on training, and philosophically... um... whilst we aren't funded, nor is our role to act as a placement agency, or employment agency, or to work with industry in all the different ways that employers traditionally got free support from the government, through government agencies, we do take an interest and where I know an employer is looking for staff, and where I know somebody is redundant, I'll match them up as best I can (Interview with electrical ITO official).

Major themes
The two most salient themes in all of the case studies were first, skill shortages and second, the low status of the trades. In each case study, however, these themes manifested themselves in slightly different ways, so they will be explored in the respective chapters. Here I provide a general introduction to each theme.

Skill shortages
According to the Department of Labour definition, a "skill shortage exists when a lack of skilled labour, at the going market wage, is constraining the expansion of a firm" or, alternatively, when there is "a mismatch between the supply of people with particular skills and the demand for people with those skills" (Department of Labour, 2003c, Appendix I). Under the tenets of neo-classical economic theory (or the human capital approach, see Chapter Two, pp.27-31), when there are skill shortages, wage levels should adjust, encouraging more people to train, thereby remedying shortages.

Unfortunately, as seen in Chapter Two, there are many market failures and imperfections that impede these simplistic 'laws' of supply and demand. The Department of Labour suggested some of the main reasons for the persistence of skill imbalances: imperfect
information in the labour market; the long-term nature of both the employment relationship and of occupational choice; the slowness of wage adjustments; the vulnerability of the labour market to 'shocks', such as technological and demographic change; and the importance of external factors, such as the business cycle, in employment and wage decisions (Department of Labour, 2003c). All of these factors will be in evidence in the following chapters.

Refining the notion of 'skill shortages', the Department of Labour delineated three variations: a genuine skill shortage when there are simply “insufficient job seekers with the required skills”; a skills gap when employers may find workers with some, but not all, of the skills required; and recruitment difficulties when there are “enough job seekers with the required skills but they are unwilling to take up the work on offer” (Department of Labour, 2003c, Appendix I).

The horticulture industry provides an interesting example of the last category. According to Mike Finlayson, Chief Executive Officer of the New Zealand Horticultural Industry Training Organisation (NZHITO), while the industry was “training at a level never seen before”, there was nevertheless a “crisis looming” over the supply of skilled workers (Finlayson, 2003, p.11). He explained that an examination of the 2001 census data showed that 50 per cent of horticulture workers earned less than $20,000 per year, and 84 per cent less than $40,000 per year. Thus, Finlayson argued that low wages were at the root of recruitment problems, were driving people from the industry, and contributed to poor completion rates of qualifications (Finlayson, 2003). He added:

[Low wages are] one of the fundamental reasons people believe there is skill shortage in the horticulture industry. Very few people these days are prepared to work for as little as $8/hour. If an employer can’t find someone who will, the immediate reaction is to perceive there to be a skills shortage in the industry (Finlayson, 2003, p.11).

50 In the June 2001 quarter, the average weekly wage and salary income for all people was $740; that is, $38,340 per year. The average wage and salary hourly earnings were $17.14 (Statistics New Zealand, 2001a).
51 Only 10 per cent of all the people who went through NZHITO’s training programmes from 1993 to 2003 graduated with a Level 4 National Certificate (Finlayson, 2003).
Status

The low status of the skilled trades in New Zealand was a recurrent theme throughout my Masters thesis and was reiterated constantly during the case studies, with the blame being laid almost unanimously at the doorstep of the education system. Yet, paradoxically, the notion of ‘getting a trade behind you’ or the rhetoric of ‘doing your time’ or ‘serving an apprenticeship’ remain powerful metaphors and are often used to refer to situations far removed from training for a skilled trade. As discussed in Chapter Four, the ‘reintroduction’ of apprenticeship via the Modern Apprenticeships scheme has proved a public relations ‘winner’ for the Labour-led Government and is frequently mentioned high up on the government’s ‘Haven’t we done well?’ lists. Yet, as will be seen in the case study chapters, respondents felt generally aggrieved at the poor standing in which they perceived their industries to be held, and despaired of attracting reasonable numbers of recruits.

Clearly, if I am claiming that there is a perception that the status of a group of workers is ‘low’, it follows that there is some sort of conceptual hierarchical organisation of occupations. Much ink has been spilt on the subject of social stratification, and mobility between those strata, with the classification of occupations forming the basis for much of the debate. Many of the assumptions and judgments inherent in (supposedly) objective accounts of occupational structure, however, give cause for concern. As Coxon and Davies (1986) argued:

In the process of sociological abstraction, people and their conceptions of society have been squeezed out of the account, or only allowed in to provide data-fodder for the measurement of occupational prestige, or else to feature as unwitting examples of ‘mistaken’ or ‘subjective’ distortions of the sociologist’s derivative (but somehow privileged) account of the occupational structure... While there are obviously important economic and macro-sociological factors, such as the education system, affecting the occupational structure, social stratification itself is rooted in how people (including sociologists) perceive and judge occupations. Any account of social stratification must begin by recognizing how varied people’s images of society are... (Coxon & Davies, 1986).

Acknowledging the importance of subjectivity in how people perceive occupational standing is useful and important to this thesis for two reasons. First, it allows the statements regarding the status of their trade that many of the respondents made to be contextualised, and to be valued, without the need to provide some sort of ‘objective’ proof. It will be seen
that many respondents had a very clear concept of what the standing of their trade had been, or should be, and a simmering resentment (in some cases) that currently the trade (or trades in general) were not receiving their due prestige. Second, if it is recognised that people often make career choices (or influence the decisions of others) based upon the perception of occupations, then we may be able to challenge some of the stereotypes that turn people away from entering valuable yet under subscribed occupations. As Lloyd and Marshall (2002) argued:

Unfashionable as fitters, nurses, electricians and boilermakers may be to our self-image as a society (I am yet to see the Naked Boilermaker as a viable ratings competitor with Buffy) without them there is unlikely to be any image at all (Lloyd & Marshall, 2002, p.1).

The roots of the feelings that many respondents had about the worth of the skilled trades may be traced back to the notion of an ‘aristocracy’ of workers. The idea of a select group of skilled workers, corresponding largely with the apprenticed trades, was used by thinkers such as Engels and Marx in the late nineteenth century to explain the lack of progress of the English working-class in “realising its revolutionary destiny” (Olssen, 1995, p.6). According to the concept, this privileged ‘aristocracy’ of workers was differentiated by such characteristics as higher wages, respectability, political moderation, distinctive leisure pursuits, an interest in education as a means to self-knowledge and empowerment, and support for unionism and cooperative societies. This select group supposedly blunted working-class hostility to capitalism by providing a “conduit for the transmission of ‘bourgeois values’ ”.52

Hobsbawm, while leaving aside an assessment of an ‘aristocracy of labour’ as such, analysed the world of British skilled tradesmen or artisans. He argued that the “characteristics, values, interests and, indeed, protective devices [of these workers], had their roots deep in the pre-industrial past of the “crafts” which provided the model even for skilled trades which could not have existed before the industrial revolution” (Hobsbawm, 1984, p.355). The strength of the ‘craft’ ethic helped the exclusive nature of these trades to be maintained. That exclusivity did not only extend to ‘unskilled’ workers; the skilled

52 Collins Dictionary of Sociology. 2nd ed., s.v “labour aristocracy".
trades were predominantly male and that legacy of exclusiveness may help to explain some of the deeply-rooted attitudes towards women still evident today.

In New Zealand, although historically women were rarely directly excluded from an occupation, apprenticeship regulations were one means used to restrict their employment, along with the insistence by some unions on equal pay for women workers. In some awards, the number of women who could be employed in proportion to the number of men was restricted and in others the type of work women were permitted to carry out was limited. In some cases, these restrictions were based upon protecting women from heavy work but usually the restrictions focused on the skill involved in the job: “awards restricted women to repetitive work on highly subdivided tasks, to ‘unskilled work’” (Robertson, 1991, p.35). Thus, the arbitration system “systematized, structured and sustained the segmentation of the labour force”, allowing male workers to protect their jobs, their skilled status and their pay rates from the threat of cheaper female labour (Robertson, 1991, p.33).

While it would be unrealistic to categorise skilled workers in New Zealand as forming any sort of ‘aristocracy’, there is little doubt that they differentiated themselves from other workers. Olssen described the notion of the skilled trade as a ‘moral’ category in his detailed study of skilled workers in Caversham in the early decades of the twentieth century. He argued that skilled workers believed they had a property right in their skill and labour, with labour being the “fundamental source of value in society” (Olssen, 1995, p.227). Fairness, respectability and ‘civilised’ behaviour characterised the skilled workers’ view of themselves, and of their role in society. The relationship between employer and worker was reciprocal, rather than exploitative: “the idea of a trade also embodied the idea of a community of interests, an arena of reciprocal rights and duties, which defined a kind of partnership” (Olssen, 1995, p.227).

While clearly many of these elements have less relevance in the twenty-first century, I would argue that the discourse of the superiority of the skilled trades coloured the views (often unconsciously) of many of the respondents. To have a trade is to belong to an exclusive group. The identity of this group is forged through a long and sometimes thankless training; there are financial sacrifices and members must accept a turn at the
bottom of the heap. The cohesiveness of the group is maintained through camaraderie and humour; members form bonds based on similar experiences as they move through the hierarchical layers of apprentice, tradesperson and sometimes employer. The integrity of the group is affirmed through a deep respect for the skills of the trade, and the technology surrounding those skills (Murray, 1999). Little wonder then, that the feeling that the trades were disparaged aroused such ire in some respondents.

**A:5 Conclusion**

In this rather long introduction, I have first set the scene for the case studies. New Zealand is a small country, both geographically and in terms of population, yet regional analysis remains useful, as it allows detailed exploration of micro patterns that may be submerged at the national level. Second, I have explored some of the factors that, despite obvious difference in the nature, shape and organisation of the industries, were common to all the case studies. Finally, I have previewed the two major themes that were evident (in different manifestations) throughout the case studies: skill shortages and the current low status of the trades.
CHAPTER FIVE

THE ENGINEERING INDUSTRY

This chapter focuses on the engineering industry and, in particular, on manufacturing and jobbing engineering in Canterbury. The industry has a long history of apprenticeship but, of the four case-study industries in this research, has arguably been subjected to the most wide-ranging mix of skill changes: the almost total deskilling of some jobs via technology, coupled with the introduction of extremely high-technology machinery that requires high-level skills in other areas. There is also a strong maintenance component to much of the work, therefore a wide range of skills are still required of workers by many employers.

Engineering, and manufacturing in general, was historically subject to a great deal of state control, both directly, through various protective measures, and indirectly, through the amount and distribution of government spending on public works. The sector was gravely affected through the 1970s and 1980s by a ‘double whammy’ of technological obsolescence and deregulation. Those firms that survived the decimation of manufacturing through the 1980s tended to be innovative firms who were able to seek out new markets while surviving off their ‘fat’. Consequently, much of the industry is now export-oriented (with attendant risks) and the contraction of training through the ‘lean’ years is currently impacting with severe skill shortages.

5.1 History

Beginnings

During the early days of colonial New Zealand there was only a limited amount of industrial development. The scattered nature of the population, the lack of industrial raw materials, and a general bias against the industrialised landscape that many of the settlers had left behind, meant that the need for industrial goods was largely satisfied by importing from Britain (Golledge, 1964). The population of New Zealand at that time was largely
rural, with only 33.8 per cent living in urban areas (of over 1000 people) in 1861, and the bulk of the work force being engaged in primary production (Graham, 1996). What little industry there was was dedicated to servicing the rural and extractive sectors. Nevertheless, several small iron and brass foundries were established from the early 1850s:

Soon after John Anderson reached Lyttelton on December 17, 1850, he erected his first forge on ‘The Bricks’ site in Oxford Terrace, near Barbadoes Street, not only as a profitable business proposition, but emblematic of the bond which was to develop between the farming and manufacturing industries in Canterbury, since it was there that horses were shod and farm implements repaired (Canterbury Manufacturers' Association, 1980, p.8).

By 1867, the first year that manufacturing statistics were collected, there were sixteen iron and brass foundries establishments in New Zealand, with the highest number (five) being located in Canterbury (Golledge, 1964).

An Engineers’ Union was established in Auckland in 1863. It was formed by a Scottish immigrant, who had brought a charter from the British Amalgamated Society of Engineers. The union, numerically small, was based on the British trade union model, whereby only competent tradesmen who had served an apprenticeship were admitted. Such craft unions were well placed to take advantage of the 1894 arbitration legislation (see Chapter Three, pp.57-60) and secured wage rises, shortened working hours and improved conditions (Roth, 1973).

Industrialisation

Growth burgeoned in the new colony, encouraged by the gold rushes (1861-1871), the expansionist spending programme of the 1870s (see Chapter 3, p.61), the development of refrigerated meat exports in the 1880s, and expansion into new areas of settlement (Golledge, 1964). There was an increasing recognition that “secondary industry was now essential to the colonial economy” (Gardner, 1996, p.83). Thus, over the first half of the 1880s, there was a marked growth in light industry. The industrial labour force expanded by 36.8 per cent between 1881 and 1886, increasing to 39,000 workers (Gardner, 1996). By 1891, encouraged by the introduction of protective tariffs in 1888, there were 79 iron and brass foundries, employing 1655 people (Golledge, 1964).
While the lack of necessary raw materials and the small size of the market and labour-force precluded the development of heavy industry, the manufacturing sector expanded from its rural and extractive base to begin to fill some of the needs of the domestic market, and to service the infrastructure growth required to modernise New Zealand (Golledge, 1964; Gardner, 1996). In Christchurch, for example, the early and extensive development of a railway network not only connected the city with its rural hinterland, but also encouraged the growth of engineering service firms, for example, Anderson’s (established by John Anderson, mentioned earlier), P. and D. Duncan and Andrews and Beaven. Manufacturing in general was a significant employer in Canterbury from the 1870s. In 1896, there were over 13,500 people employed in industry in the province, and by 1936 over 25 per cent of employed men, and 30 per cent of employed women, worked in manufacturing (Burnard, 2000). Comparatively, in New Zealand, manufacturing as a whole accounted for a steady 20 per cent of the work-force employed between 1911 and 1926 (Gardner, 1996).

Despite the importance of manufacturing to the Canterbury economy, the particular nature of industrial development in the region was distorted by the dominant agrarian–comprador alliance, as discussed in Chapter 2 (pp.43-44) (Higgins, 1993). Higgins, drawing on the work of Eldred-Grigg (1982) and Armstrong (1978), showed how these groups, with their roots in the wealth created from the vast pastoral estates of the mid-nineteenth century: were allied against industrial capital, obstructing the growth of factories and impending industrial development within Christchurch...the development of manufacturing in Christchurch was dominated by very basic primary produce processing...and also by engineering, the latter servicing an agricultural sector which...had become the most heavily mechanised in the world by the early part of [the twentieth] century (Higgins, 1993, p.150).

The Canterbury firm of Andrews and Beaven, established in 1878, typified the service role of manufacturing in the early days of Canterbury’s development. Specialising in chaff-cutters, their reputation soon allowed them to export their machinery to Australia. As more of the country was cleared for pasture, the firm developed locally-made seed cleaning machines, as well as importing and servicing other vital farm equipment, like the Blackstone oil engine. By 1890, 12 staff were employed, although there was no record of any ‘boys’ (apprentices) at that time, the industry presumably being well enough supplied

53 Secondary manufacturing, excluding the processing of agricultural products (Gardner, 1996).
by immigrant tradesmen. Andrews and Beaven became a private company in 1906. The
company prospered during the First World War, although working conditions were
‘atrocious’. Productivity was high, but the staff numbers had dropped from 56 in 1911, to
34, of whom five were apprentices, in 1918 (Andrews and Beaven Ltd, 1978).

Throughout New Zealand, 86 new ‘general engineering’ works were established between
1890 and 1915, bringing the total number to 142, which employed 2513 workers (Golledge,
1964, p.35). While some of the engineering works were large-scale, especially those in
Christchurch and Dunedin, many were small workshops, or family firms, where: “[o]ften
the employer and his workers toiled side by side and the gap between management and
personnel was insignificant” (Gardner, 1996, p.249). The apprenticeship system was firmly
entrenched in the engineering industry, with wages and conditions specified in great detail
in the respective awards under the *Industrial Conciliation and Arbitration Act 1894*. The
Wellington Technical School, established in 1905, pioneered links with industries,
providing a model for technical training under the *Apprentices Act 1923*. There was a
“noticeable expansion in classes from the building and engineering trades in 1924 and
subsequent years” (Nichol, 1940, p.217).

**Technological advances**

Despite the economic fluctuations and turmoil of the inter-war years, manufacturing was
able to maintain its level of economic importance relative to other sectors, with the metal
fabrication and engineering industries growing comparatively strongly (Golledge, 1964).
Technological changes affected both the products required, and the organisation of
production. In particular, electrification proceeded apace, with the consumption of
electricity in Christchurch nearly tripling between 1920 and 1940, while the price fell about
12.5 per cent for industrial consumers in the same period (Pickles, 2000). The influence of
electric power “proved particularly strong in the metal trades, with the speeding up of a
wide range of drilling, cutting, grinding and finishing operations, the increasing use of
welding and electroplating and the appearance of electric furnaces” (Watson, 1984, p.40).
Technological changes also impacted on the union movement in the engineering industry.
In particular, the establishment of large car assembly plants “provided the impetus which
transformed the craft-orientated Engineers’ Union into a nationwide Engineering and Related Trades Union” (Roth, 1973, p.59).

Accompanying and reinforcing the technological changes were changes in the way work was organised. As discussed in Chapter Three, there was a wide variation in the ways in which work place changes manifested themselves. For example, Olssen argued that workers in the state-owned railway engineering workshops were “able to successfully resist many of the implications of the second industrial revolution” (Olssen, 1991, p.129). He claimed that the unity and power of the workshop culture that allowed this resistance were largely attributable to the apprenticeship system. This system “socialised everybody on the shop floor into the practices, customs and conventions of the trade and the sub-culture of skilled men” (Olssen, 1991, p.130). Nevertheless, in the Addington Railway Workshops, efficiency increases gained through electrification and work organisation meant that the number of days required to overhaul a locomotive dropped from 55 to 38 between 1925 and 1928. This contributed to a decreasing number of workers at Addington (Watson, 1984).

Much of this “technological innovation and restructuring of work” occurred against the background of the Depression of the early 1930s; the “paradox of modernity amidst economic depression” (Pickles, 2000, p.148). Christchurch was particularly hard hit, with the male unemployment rate significantly higher than in the other main centres. Watson (1984) argued that these factors “tended to reduce Christchurch’s share of activity in all the major sectors of the economy”, holding the region back during the 1920s and 1930s (Watson, 1984, p.137). Production at Andrews and Beaven, for example, virtually came to a standstill, and the company was forced to lay off its single men and roster the married workers. The company managed to survive large losses each year from 1930 until 1934 by depleting its reserves, and was forced to “start from scratch” when the economy rallied in 1935 (Andrews and Beaven Ltd, 1978, p.11).

The fledgling manufacturing sector began to develop a voice, and through these difficult years lobbied strongly for “protection from overseas competition and incentives for local development” (Golledge, 1964, p.38). The vulnerability of the economy having been

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54 At the 1936 census, the male unemployment rate in Christchurch was 14.5 per cent, compared with 11.8 per cent in Auckland, 9.5 per cent in Wellington and 9.3 per cent in Dunedin (Pickles, 2000).
exposed by the Depression, the First Labour Government (1935-49), with the support of “some prominent industrialists, and many small business owners” moved to broaden and strengthen New Zealand’s manufacturing sector, both to encourage investment and development and to lessen the reliance on imported goods, thereby easing balance of payments problems (Higgins, 1993, p.151). Thus, the Industrial Efficiency Act was passed in 1936 and, precipitated by a foreign exchange crisis, import licencing and exchange controls were introduced in 1938 (Golledge, 1964; Hawke, 1996).

World War Two

The Second World War had a major impact on the nature of industry in New Zealand (see Chapter Three, pp.60-71). The rapid growth of the sector meant there was an ongoing shortage of labour, which worsened as the rate of mobilisation increased. The shortage was the most “widespread and serious in the engineering trades”, with a 1940 report showing that a further 400 tradesmen and 120 apprentices could be absorbed (Appendices to the Journal of the House of Representatives (AJHR), 1941, p.11). The chronic shortage of skilled tradesmen prompted the Auxiliary Workers Training Emergency Regulations in 1941, which set up short periods of intensive full-time training for selected workers who usually had some knowledge of the trade. Initially, the engineering industry was targeted, with 266 tradesmen trained and placed in the first intake.

As the war ended, the need for an upgrading of apprenticeship became clear, as discussed in Chapter Three, and the Apprentices Act was passed in 1948. The minutes of the New Zealand General Engineering and Blacksmithing Apprenticeship Committee for 1948 and 1949 provide a clear example of the debates and issues surrounding the implementation of the Act. The first problem the Committee faced was specifying explicitly which branches of the industry were to be included in the new apprenticeship order. Part of this difficulty was caused by new technology; the classification of refrigeration engineers and servicemen, for example, raised concerns. The other difficulty pivoted upon the definition of a ‘trade’. The Welding Institute, for example, was training workers in one skill, welding, but this was
considered too narrow a training to be classified as a trade. Therefore, the committee decided that ‘welding’ *per se* could not be considered a branch of the industry.\(^{55}\)

The question of technical education was also the subject of much debate. It was suggested that a prerequisite of two years post-primary education be imposed, with fifteen years as a minimum age for an apprentice. Mr R. Jones, the Federation of Labour representative on the Committee, argued (presciently) that the degree of skill required in the metal trades had increased, and that apprentices needed the ability to absorb the requirements of the post-war environment: “Tradesmen of the future must have the flexibility that they lack today” \(^{56}\)

**Post-war growth**

The protective and expansionist policies for manufacturing initiated in 1938, although interrupted by the Second World War, were rapidly reinstated after the war. The emphasis was to encourage, via the licensing system, the importing of “materials or capital goods for local production rather than finished goods for immediate consumption” (Hawke, 1996, p.416). The level of protection enabled the ‘hot-house growth’ and diversification of manufacturing that had began during the war years to continue as manufacturers, secure that demand would be maintained, invested freely (Hawke, 1996, p.421). The mechanism of import licensing, rather than the use of the broader brush of tariffs, however, resulted in a complex and “haphazard” system, with “wide and inexplicable differences” between industries, where “firms were rewarded for their skill in securing import licenses rather than for their efficiency in using resources to make products which consumers wanted” (Hawke, 1996, p.423).

The post-war changes at Andrews and Beaven illustrated that company’s reaction to the new environment, as it moved to become a “nation-wide company with a diversified product range that would be imported or manufactured as conditions dictated” (Andrews and Beaven Ltd, 1978, p.17). The company went public in 1948, the injection of capital beginning a period of rapid growth. The direction of that growth, however, was dependent upon the vagaries of the import licensing regime as, for example, import licences for

\(^{55}\) New Zealand General Engineering and Blacksmithing Apprenticeship Committee Minutes, December 1948. ABVT, 7254/2, National Archives (NA), Wellington.

\(^{56}\) New Zealand General Engineering and Blacksmithing Apprenticeship Committee Minutes, December 1948. ABVT, 7254/2, NA, Wellington.
American tractors were withdrawn in the early 1950s, dampening the strength of the agricultural division of the company, and, in the late 1950s, the clamp-down on imports at the end of the Korean War precipitated the manufacture of materials-handling equipment (Andrews and Beaven Ltd, 1978). Despite a regular intake of apprentices, the growth of the company (which by 1964 had a staff of 437), coupled with full employment in New Zealand, meant a shortage of skilled tradesmen (Andrews and Beaven Ltd, 1978).

The shortage of skilled labour was also an issue for CWF Hamilton. This company had also rapidly expanded after the war, and complemented an in-house apprentice training school with sponsoring skilled migrants: “At one time twenty-three Dutchmen, some Australians, Czechs, Italians, Samoans, Maoris [sic], a South African and a Canadian were among the staff” (Hamilton, 1969, p.160). CWF Hamilton garnered much work from the post-war expansion of New Zealand’s infrastructure, building, for example, intake gates for many of the hydro-electric projects, and the Kawarau Bridge.

Throughout the 1950s and 1960s the engineering industry, and manufacturing in general, operated in a ‘cossetted’ environment, heavily protected, regulated and taxed (Willis, 1994a, p.3). Estimates of the level of protection are shown in Table 5.1 (p.146). From 1962, however, there was limited recognition of the “need for a more outward looking posture for manufacturing” (Willis, 1994a, p.7). Various export incentives were introduced, the New Zealand-Australia Free Trade Agreement (NAFTA) was signed in 1966, and the New Zealand dollar was devalued in 1967 to give parity with Australia (Hawke, 1996; Willis, 1994a).

By the end of the 1960s, there was a growing recognition that the New Zealand economy needed restructuring. It was clear in some quarters that traditional exports were no longer able to provide sufficient income for the levels of growth deemed acceptable by the country as a whole (Hawke, 1996). Therefore, an expansion of manufactured exports was mooted, which, in turn, would require New Zealand to open its economy to international competition: “the principal engine of economic growth in the international economy was widely seen to be international trade in manufactured goods” (Hawke, 1996, p.437). This plan was contentious, however, threatening as it did both the supremacy of rural interests, and the protected manufacturing sector.
Table 5.1: Estimates of the level of effective protection in New Zealand manufacturing  
(Willis, 1994a, p.6)

<table>
<thead>
<tr>
<th>Production Group</th>
<th>1956</th>
<th>1965</th>
<th>1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, beverages, tobacco</td>
<td>88.6</td>
<td>8.0</td>
<td>8.6</td>
</tr>
<tr>
<td>Textiles, apparel, leather</td>
<td>67.6</td>
<td>338.8</td>
<td>69.2</td>
</tr>
<tr>
<td>Wood and wood products</td>
<td>130.8</td>
<td>187.3</td>
<td>28.9</td>
</tr>
<tr>
<td>Paper printing &amp; publishing</td>
<td>46.8</td>
<td>67.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Chemicals, petrol, plastics</td>
<td>21.6</td>
<td>24.3</td>
<td>48.7</td>
</tr>
<tr>
<td>Non-metallic minerals</td>
<td>-15.1</td>
<td>13.9</td>
<td>17.1</td>
</tr>
<tr>
<td>Base Metals</td>
<td>-5.8</td>
<td>161.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Metal products and machinery</td>
<td>560.5</td>
<td>251.2</td>
<td>64.2</td>
</tr>
<tr>
<td>Other manufacturing</td>
<td>69.0</td>
<td>186.4</td>
<td>76.2</td>
</tr>
<tr>
<td>Total Manufacturing</td>
<td>50.0</td>
<td>73.4</td>
<td>36.1</td>
</tr>
</tbody>
</table>

The 1967-1968 recession gave the reluctant National Government the impetus it required to attempt to persuade the country of the need for restructuring. To this end a National Development Conference was organised in 1968 and 1969, chaired by the Deputy Prime Minister, Jack Marshall (Franklin, 1978, p.94). The key recommendations of the Conference were a 700 per cent increase in manufacturing over the following ten years, coupled with the gradual end of protection for manufacturers (Franklin, 1978, p.94). A skilled labour force was identified as a key resource for the future development of the country. It was agreed that while apprenticeship remained a valid method of training in many trades, there was a need for reform of the system. The idea of pre-apprenticeship training was mooted at the Conference and extended courses in carpentry and engineering for first year apprentices were established in February 1972 (Vocational Training Council, 1979). Carpentry training was introduced in Hamilton and Christchurch, and engineering in Auckland and Dunedin.
5.2 Recent developments: The end of the golden weather

'Think Big'
Throughout the 1970s, the international economy became increasingly volatile, with worldwide inflation and unpredictable terms of trade. New Zealand's trade with Britain declined from 53 per cent of its exports in 1960 to just nine per cent by 1985 (Jesson, 1987). This meant that exporters increasingly had to compete in the world market, rather than having a guaranteed destination for their products. The oil price shocks of 1973 and 1979, along with the international phenomenon of 'stagflation' (declining employment and increasing inflation), meant that the economy was more exposed to global events. The reaction of National's Prime Minister and Minister of Finance, Rob Muldoon, to the economic crisis was to intervene in the economy on an almost daily basis. While his actions were those of orthodox recession economics, and at the time met with wide approval, he neglected long-term strategies, relying instead on Keynesian fine-tuning of the economy (Templeton, 1995). The flagship of Muldoon's 1981 election strategy was the ill-conceived 'Think Big' scheme.

'Think Big' aimed to make New Zealand at least 60 per cent self-sufficient in energy through gas and hydro-electric energy projects, which would also allow the development of heavy industry and the extension of manufacturing (McRobie, 1996). The scheme was based upon four factors: the Maui gas field, discovered in 1968; the over-investment in electrical generating capacity in the mid-1970s, which resulted a surplus of generating capacity by the late 1970s; the oil price rises of 1973 and 1979; and the readiness for harvest of forestry planted in the 1950s, the processing of which was energy-intensive (Easton, 1997).

In anticipation of the extra engineering tradespeople that would be required for the planned construction of the 'Think Big' energy projects, the Special Engineering Apprentice Training Scheme (SEATS) was announced. This scheme aimed to train 600 people in addition to those in traditional engineering apprenticeships. The scheme involved a 20-week pre-apprenticeship course, followed by placement in a special apprenticeship with a shortened term of 5000 hours. The first intake of 224 trainees commenced the pre-

‘Think Big’ was designed to give the impression that the government had a vision, and to reduce unemployment and inflation. Not only did this fail to occur, but cost over-runs and changes in the circumstances upon which the viability of the large-scale energy projects was assessed, made the scheme an expensive liability (Dalziel & Lattimore, 1996). For example, the success of some of the projects was based upon continuing oil price rises, which did not occur (Easton, 1997). The scheme also masked for a few years deep structural problems in New Zealand manufacturing.

The Fourth Labour Government

By the mid-1980s, as the impetus behind the ‘Think Big’ projects slowed, New Zealand’s manufacturing sector sunk into a decline, which was cemented by the policies of the 1984 Fourth Labour Government. These resulted in a low level of domestic demand, especially after the removal of farm subsidies and, most drastically, removal of import barriers and the resultant loss of import substitution activities (Higgins, 1993). While many OECD countries had needed to rebuild “outmoded and inefficient industrial base(s)” in the late 1960s and early 1970s, the delay in New Zealand’s adjustment meant that attempts to modernise happened after most other countries had already updated. The effects were devastating:

Unprotected from their already small domestic base, deprived of State assistance to develop compensating exports and faced with increased competition both domestically and internationally as a result of deregulation, the sector experienced successive waves of plant closures and an associated loss of employment opportunities (Morrison, 1991, p.14).

Because of the nature of manufacturing in the Canterbury region, involving a high proportion of agriculture service firms and import substituting industries, Christchurch, for many years the centre of engineering in New Zealand, was particularly vulnerable to the changes (Higgins, 1993). Many firms merged, restructured, relocated northwards or disappeared altogether. Andrews and Beaven, for example, was taken over by an Australian

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57 Canterbury manufacturing had also fallen behind in the 1970s, left out of the government’s regional development initiatives (Higgins, 1993).

Other firms were able to adapt to the changed environment. Mace Engineering, for example, had a diverse market, and, in 1992, secured a $3.9 million (government sponsored) contract to supply parts for the ANZAC frigate project ("Mace wins Anzac ship contract," 1992). CWF Hamilton survived the onslaught, but only by taking a calculated risk:

> In the mid-eighties, the company was doing a lot of contract work for the government; they were building steel works, the Glenbrook steel company, control gates for power schemes, all that sort of thing. When the 'great' Roger Douglas came along, that just disappeared overnight. I'm personally very angry at what happened, the destruction of New Zealand industry at that time was severe...

> The company made a critical decision. All its contract work was just wiped over night. If you wanted something, you imported it, you didn't build it locally – so that was the drift. The company (and I was involved) said, 'What are we going to do? We're close to closing up?' Now, we had the marine jet unit, it was a little specialty, just a specialty that had been developed in New Zealand. It was starting to sell quite well overseas. Could we, the company, exist on the water jet unit? That was the question. And about the mid-80s, the company decided we'd give it a go. So almost all the local engineering dried up. The company turned, as the local manager put it, from a multi-product, New Zealand-oriented company, into a single product (the water jet unit), world-wide distribution. It shifted. Now, big risk...but I'm happy to say it worked. And it's grown ever since. Exists almost entirely on water jet propulsion – Bill Hamilton's little hobby! (Interview with retired engineer).

Labour market impact

The net result of the speed of the structural adjustment through the 1980s “was not to move labour from a declining manufacturing sector into an expanding range of service industries in an orderly sequence of structural change, but to take labour out of manufacturing and onto the unemployment register or out of the labour force altogether” (Morrison, 1991, p.14). As discussed in Chapter 4 (p.85), New Zealand's burgeoning unemployment rate from the mid-1980s was largely due to the decline in the manufacturing sector (see Table 5.2, p.150). From 1986 to 1991 there was a net decline in employment of 111,500 persons, with the manufacturing sector having a net loss of 102,400 persons (Krishnan et al., 1992).
Nevertheless, lay-offs and redundancies were not the major means used by firms to adjust their labour requirements. Instead, attrition, not hiring, cutting of overtime, employment of casual staff and sub-contracting\(^\text{58}\) were used.

Table 5.2: Numbers employed in New Zealand manufacturing (000s) (Willis, 1994a; Morrison, 1991)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Total manufacturing</td>
<td>160.7</td>
<td>197.8</td>
<td>272.8</td>
<td>318.9</td>
<td>236.3</td>
</tr>
<tr>
<td>% change</td>
<td>23.1%</td>
<td>37.9%</td>
<td>16.9%</td>
<td>-25.9%</td>
<td></td>
</tr>
<tr>
<td>Actual change (000s)</td>
<td>+37.1</td>
<td>+75</td>
<td>+46.1</td>
<td></td>
<td>-82.6</td>
</tr>
<tr>
<td>Fabricated metal production</td>
<td>33.2</td>
<td>45.9</td>
<td>70.1</td>
<td>84.1</td>
<td>66.0</td>
</tr>
<tr>
<td>% change</td>
<td>27.7%</td>
<td>34.5%</td>
<td>16.7%</td>
<td>-21.6%</td>
<td></td>
</tr>
<tr>
<td>Actual change (000s)</td>
<td>+12.7</td>
<td>+24.2</td>
<td>+14</td>
<td></td>
<td>-18.1</td>
</tr>
<tr>
<td>Percentage of manufacturing labour force employed in fabricated metal production</td>
<td>20.7%</td>
<td>23.2%</td>
<td>25.7%</td>
<td>26.4%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Total labour force (000s)</td>
<td>720.6</td>
<td>861.1</td>
<td>1070.1</td>
<td>1266.1</td>
<td>1223.9</td>
</tr>
<tr>
<td>Percentage of total labour force employed in manufacturing</td>
<td>22.3%</td>
<td>23%</td>
<td>25.5%</td>
<td>25.2%</td>
<td>19.3%</td>
</tr>
</tbody>
</table>

Naturally, such devastation had a huge impact on employment, particularly in Christchurch, where hundreds of skilled engineering trade jobs disappeared. There were also changes in skill requirements as those firms that remained in the city attempted to cope with the new environment. Higgins (1993) analysed these changes in terms of product innovation and process innovation: new, export-oriented products, which required the gradual introduction of advanced technology and new skill sets. The changes at CWF Hamilton, for example, provide an exemplar for both product and process innovation; the transformation of a ‘little specialty’ into a major export product required a substantial investment in new machinery and concomitant changes in skill requirements:

\[
\text{Great big machine centres, computer controlled machines centres that don’t require the fitters and turners and lathe operators that we used to have. So you tend to have a chap in a white coat, pushing buttons, a bit}
\]

\(^{58}\) In New Zealand, the number of self employed rose by 41 per cent from 1981 to 1986, compared with total employment growth of only seven per cent (Morrison, 1991).
more, well, a lot more, than there used to be. So there needed to be a shift in the training schemes from a chap just learning to drive a lathe and to do up nuts and bolts with his hands oily. He's now a specialist who works computer controlled machines; it's a different sort of skill. They imported a lot of experts, the company, to help get used to this new machinery, and that continued...I think the management will tell you that it was essential to change to the new technology and the new ways of making things... It was necessary to do that otherwise I think the company would have died away. They have to keep up with international technology and machinery to be competitive (Interview with retired engineer; respondent's emphasis).

Impact on training

The new environment also impacted heavily on training. As the previous quotation suggests, the range of skills needed altered, as did the capacity of the industry to provide any sort of training:

A lot companies went out of business, a lot of companies that fed apprentices or trainees into the industry no longer exist; Telecom, Tranzrail, the air force, those big organisations that would pump lots of trained people into general industry, they no longer exist in the way they used to, so...yeah, the last decade, or 15 years really, there's been a shortfall in training. So we went from having, probably 15 years ago, from having an apprentice training section in the company, we'd employ a full-time apprentice instructor, and we had an apprentice bay, where for the first two years of your apprenticeship, you'd work in that area, so you were well looked after and well trained...we were typical of big companies in Christchurch; there was Mace Engineering, Hamilton's, Scott Technology, all those big companies had apprentice training sections, and now when you look at them, we all haven't got them (Interview with manager, engineering firm).

The decline in the numbers of new engineering apprenticeship contracts between 1983 and 1992 is shown clearly in Figure 5.1 (p.152). Accompanying the decline in the private sector apprentice intake was the virtual demise of government apprenticeships, which had accounted for, on average, around thirty per cent of the total apprentice intake each year up until 1984 (Department of Labour, 1984-1993). The impact of the withdrawal of the public sector from training is explored in greater detail in Chapter Six.
As discussed in Chapter Four (p.103), the New Zealand Engineers' Union (NZEU) played an important role in emphasising the importance of training, both for its members and for the union movement and industry as a whole. Key union officials came to understand (in conference with their Australian counterparts) that the apprenticeship system, ardently supported by the union, had to be broadened, strengthened and extended to all workers to encompass the demands of new technology and increased exposure to international markets. Thus, despite the less than favourable economic and political environment throughout the late 1980s and early 1990s, the union was proactive in lobbying and educating its members, employers and government officials about the benefits of skill development. The NZEU was also a vigorous participant in the Engineering Industry Training Organisation, one of the few ITOs to have an active and ongoing union involvement (Piercy, 1999).
5.3 The current environment

Overview

The six respondents (see p.121), who were interviewed throughout 2002 and early 2003, unanimously agreed that the engineering industry in Canterbury was in a robust position. Domestically, the strength of the agricultural sector has ensured a steady workload for smaller firms and a favourable exchange rate has boosted export orders. Those firms who invested in sophisticated equipment in the early 1990s are now reaping the benefits of flexible production processes. Scott Technology, for example, which exports production lines for manufacturing whiteware, has initiated an evening shift to keep up with demand.

There is, however, evidence of a mixed commitment to both the quantity and quality of training. Many firms are not prepared to take on apprentices and new technology can be a double-edged sword. While some firms have incorporated its use into their previous training regimes, and continue to train apprentices in a wide range of skills, other firms have used technology, a la Braverman (1974), to split the production process into a range of narrow skills that require minimal training: “Many firms hire young people as trainees rather than apprentices. They train them in only a narrow band of unit standards” (Birss, 1999, p.21). At the other end of the spectrum, many engineering tradespeople are employed in large primary processing industries where “there is an increasing demand for higher level skills which are in short supply” (Stonyer & Marshall, 2002, p.192). The lack of commitment to training, combined with the re-expansion of the industry has fueled dire skill shortages.

Training regime

Recruitment

The most common port of entry to the engineering trade in Canterbury is via the Christchurch Polytechnic pre-apprenticeship course, METS (Mechanical Engineering Trade Skills). This 20-week course provides the majority of the theoretical components required for the first year of the apprenticeship, supplying future employers with work-ready apprentices who do not require leave for further theory classes until their second year.
While there are no formal entrance requirements, reasonable School Certificate\textsuperscript{59} marks in English, Mathematics, Science or a technical subject are preferred. The group training company, ATNZ, has its own series of tests, such as numeracy and mechanical reasoning, which applicants sit.

The feeling among the respondents was that while they were generally happy with the apprentices they eventually selected, the pool of potential recruits was small, with some applicants lacking the basic reasoning and mathematical skills required. Two initiatives were mentioned that attempt to improve the number and calibre of those considering a career in engineering by linking school and industry. First, the Gateway programme,\textsuperscript{60} offered by lower decile\textsuperscript{61} schools, gives students exposure to the workplace and a chance to acquire some of the relevant unit standards through workplace-based learning. Second, one Christchurch high school, Linwood High School, has an engineering pre-trade course for older students, which feeds trainees into the group training company.

**Organisation**

There are three ways in which engineering apprentices in Canterbury may be employed. First, they may be employed directly by a firm in the traditional manner. Second, they may be a Modern Apprentice, either employed directly, with a Modern Apprenticeships co-ordinator to oversee the administration of their apprenticeship, or employed by the group training company under the auspices of Modern Apprenticeships. Third, they may be employed by the group training company, but not be a Modern Apprentice (often because they are aged over 21). Regardless of the organising body, all apprentices are signed up with the engineering industry training organisation (Competenz).

\textsuperscript{59} This was the examination sat at Year 11 (age 15 to 16). It was replaced in 2002 by the standards-based National Certificate of Educational Achievement (NCEA). The impact of this change on recruitment practices has yet to be assessed.

\textsuperscript{60} Gateway, run by the Tertiary Education Commission, allows a selection of Decile 1-5 schools to “make learning relevant and to broaden students’ options by offering both traditional and workplace learning”. The programme is specifically not merely ‘work experience’, as participants are expected to acquire qualifications, nor is it viewed as a remedial programme (Tertiary Education Commission, 2004a).

\textsuperscript{61} New Zealand schools are ranked for the purpose of targeted funding entitlement on the basis of the socioeconomic status of the school’s catchment. The rankings range from Decile 1-10, with Decile 1 schools being situated in the most disadvantaged areas.
Assessment

The theoretical components of the apprenticeship are taught in three-week block courses (one for each year of the apprenticeship) at various training providers. Workplace assessment is carried out either by accredited assessors from within the firm, or by ‘roving’ assessors (often from the Christchurch Polytechnic) who are contracted by the firm. Both Modern Apprenticeships co-ordinators and group training officials play an important role in ensuring that assessment is kept up-to-date and in arranging for the apprentice to have access to the full range of skills required. This may mean seconding apprentices to different firms, where necessary, an activity which requires extensive networking and a ‘calling in’ of favours.

Industry issues

Skill shortages

The shortage of skilled engineering tradespeople was viewed a major problem, especially by those respondents in business:

Absolutely, huge shortage, massive. We’ve got a huge problem here at the moment. We’re extremely busy, in fact I think industry generally in Canterbury is busy at the moment, and we’ve been advertising for trained staff, and can’t get any, nothing. We’re short by probably at least five tradespeople at the moment, and it’s hurting us really badly, yeah (Interview with manager, engineering firm).

While firms pointed to a general shortage of skilled labour, a real lack was identified at the higher levels:

What we need is the higher end, the CNC guys, the more capable type staff, that’s where the hole is, and that has been created a lot by, they’ve got rid of advanced trade, they were going to replace it with Level 5, and it’s still not replaced yet. And that is a DISASTER, absolute disaster. So Christchurch Polytechnic have been trying to get the units written so that they can actually implement the whole thing, but they’ve found it a lot more difficult than they thought as well, and, you know, they were talking the middle of last year, then they were talking the beginning of this year, now they’re talking mid this year, and it’ll probably be next year in reality. So you’ve got about two years worth of apprentices that haven’t been able to do that, which is disgusting (Interview with works manager, engineering firm; respondent’s emphasis).
The industry is struggling to attract enough apprentices with the academic ability: "clear thinking, logical and mathematical", to cope with the high level skills required (Birss, 1999, p. 21). The managing director of a heavy engineering firm commented: "Schools are telling students it's better to do sports psychology than a trade, and there's a perception now that if youngsters aren't getting a tertiary qualification they are losers. It's wrong... Our top tradespeople earn over $50,000 a year... there is a big place in the industry for academically-focused apprentices" ("Kiwi engineering co digs into new markets," 2002, p.18).

Response to skill shortages

The industry response to the decline in apprenticeship numbers during the early 1990s was the formation of Apprentice Training New Zealand (ATNZ), the engineering industry's group training company. It is a not-for-profit charitable trust, established in the Hawkes Bay (1992) and in Auckland (1995) by the Engineering Apprenticeship trust together with the Engineering Federation and the New Zealand Engineers' Union (Apprentice Training New Zealand, 2001). The trust, which moved to a nation-wide basis in 1999, aimed "to provide alternative methods of training apprentices for our companies and to provide additional skilled apprenticeship training opportunities for our future generation workforce" (Apprentice Training New Zealand, 2001, p.1).

The Modern Apprenticeships scheme has been embraced by the engineering industry, as illustrated by Table 5.3 (p.157), which shows the numbers of engineering Modern Apprentices. Some larger firms are gradually moving all their apprentices over to the Modern Apprenticeships system, lessening the amount of bureaucracy with which they have to deal directly. It is unlikely, however, that the scheme is greatly extending the number of engineering apprentices. While the scheme may encourage smaller firms to take on an apprentice, the larger firms are simply placing new recruits, whom they would have employed anyway, onto the scheme. This trend was also noted in Britain, where an evaluation of Modern Apprenticeship employers reported that only 38 per cent of Modern Apprentices in engineering represented new training (Anderson & Metcalf, 2003).
Table 5.3: Number of Modern Apprentices in engineering, 2001-2003 (Skill New Zealand, 2001d; Tertiary Education Commission, 2003a; 2003b)

<table>
<thead>
<tr>
<th></th>
<th>Sept 2001</th>
<th>December 2002</th>
<th>March 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Apprentices in</td>
<td>301</td>
<td>666</td>
<td>784</td>
</tr>
<tr>
<td>engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Modern Apprentices</td>
<td>1640</td>
<td>3254</td>
<td>5102</td>
</tr>
<tr>
<td>% Modern Apprenticeships in</td>
<td>18.4%</td>
<td>15.3%</td>
<td>15.4%</td>
</tr>
<tr>
<td>engineering</td>
<td></td>
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Status of the engineering trade

As with all the case studies, the low status of the trade was of great concern to the respondents. Engineering seemed to suffer particularly from the perception that it is a ‘dirty’ industry:

*It is difficult to get good trainees...I think part of the problem currently is that young people are being offered an awful lot of different vocations, there’s a lot of what we call the ‘sexy’ industries, like tourism and hospitality, you know, years ago, those didn’t exist, and most boys, they’d become a mechanic or an engineer or a builder or something like that, but there seems to be a lot more offering, so that dilutes the number that you’re actually going to be able to attract into engineering. Engineering’s still seen as a dirty, sort of low-paid, second rate job, in actual fact it isn’t, um, we’ve got guys, I mean, we’ve got guys on the shop floor here earning $60,000 a year, um, they’ve got job satisfaction, they can walk away from the job at the end of the day, they don’t have to do things at night...there’s a lot of positives (Interview with manager, engineering company).*

As mentioned in the above quotation, those engineers who have completed an apprenticeship are both sought after and well-paid. Nevertheless, the recruitment and retention of engineering apprentices is a problem that is currently trying many in the industry. The respondents were again unanimous as to the source of the poor image surrounding the industry, and the trades in general:

*But we just don’t get the applicants. One of the drawbacks that we have in industry today is the schools... is the schools. They’re not taught technical stuff, they’re taught to go to University, to be educated... Yeah, ‘Don’t get your hands dirty’ (Interview with engineering group training company official).*
Because what's happening in the schools is they're pushing them all to University, they're pushing them all to IT, they're pushing them to all these flowery things like recreation, tourism... now what sort of money is in those areas? None whatsoever! (Interview with polytechnic tutor).

The accuracy or otherwise of these respondents' perceptions is explored in greater detail in Chapter Nine.

The changing demographics of the engineering trade

While the current shortage of skilled workers is likely to ease through usual economic cyclic fluctuations, the changing age profile of the industry, as shown in Table 5.4 (p.159), must raise grave concerns. Given that the main 'shedding' of skilled workers occurred prior to 1991, it would seem fair to argue that the numbers employed since then represent a solid core of skill essential to industrial production and maintenance in New Zealand. If this is so, the 'ageing' of the workforce evident from Table 5.4 does not augur well in terms of replacement of that skilled engineering workforce. Table 5.4 also emphasises the overwhelming male domination of the engineering industry.

In the following section, I briefly explore some of the theoretical implications of the historical section and of the data gathered in the field work for this case study. I also follow this pattern in the remaining case study chapters. It is not my intention to set up a theoretical 'straw person' for knocking over, but rather to see how aspects of skill formation within each industry 'fit' within the broader post-Fordist debate. Thus, in this chapter, I reflect upon the complexities surrounding the adoption of technological advances. In the conclusion to Chapter Six, the electrical industry, I examine the centrality of state action (or inaction) to the health of the industry as a whole and, mediated by the decisions that individual employers make, the impact of that 'health' on training. The conclusion to Chapter Seven, the hairdressing industry, focuses on two aspects, first the 'slide' of hairdressing into the service sector, and second, the ramifications for the industry of the introduction of a competitive model for training provision, which allowed the growth of private training institutions. In the conclusion to the final case study, the agricultural

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62 This is not to imply in any way that those aged over 50 are less capable, simply that they are not being replaced as they retire.
industry, I examine the impact of globalisation and the increased competition it inspires, upon an industry where the development of a training ethos faces several barriers.

Table 5.4: Changes in age composition of various engineering occupations, 1991-2001

(Statistics New Zealand, 2003a)

<table>
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<tbody>
<tr>
<td>No. of Sheet-Metal Workers</td>
<td>4878</td>
<td>3978</td>
<td>3111</td>
<td>-36.2%</td>
</tr>
<tr>
<td>Total Females</td>
<td>420</td>
<td>183</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>% aged under 25</td>
<td>25.8%</td>
<td>21.7%</td>
<td>16.8%</td>
<td></td>
</tr>
<tr>
<td>% aged 50 and over</td>
<td>13.8%</td>
<td>13.4%</td>
<td>19.6%</td>
<td></td>
</tr>
</tbody>
</table>

| No. of Boiler Makers        | 756  | 675  | 720  | -4.8%            |
| No. of Boiler Makers        | 756  | 675  | 720  | -4.8%            |
| Total Females               | 3    | 3    | 9    |                   |
| % aged under 25             | 16.3%| 9.8% | 14.8%|                   |
| % aged 50 and over          | 15.4%| 23.6%| 22.3%|                   |

| No. of Fitter & Welders     | 5406 | 4716 | 5535 | +2.4%            |
| No. of Fitter & Welders     | 5406 | 4716 | 5535 | +2.4%            |
| Total Females               | 36   | 15   | 45   |                   |
| % aged under 25             | 23%  | 17.2%| 11.5%|                   |
| % aged 50 and over          | 11.9%| 13.4%| 19.9%|                   |

| No. of Tool & Die Makers    | 1263 | 1182 | 1206 | -4.5%            |
| No. of Tool & Die Makers    | 1263 | 1182 | 1206 | -4.5%            |
| Total Females               | 27   | 21   | 33   |                   |
| % aged under 25             | 18.4%| 13.9%| 12.9%|                   |
| % aged 50 and over          | 20.2%| 23.6%| 27.9%|                   |

| No. of Fitter and Turners   | 5799 | 4896 | 3459 | -40.4%           |
| No. of Fitter and Turners   | 5799 | 4896 | 3459 | -40.4%           |
| Total Females               | 39   | 27   | 15   |                   |
| % aged under 25             | 27.4%| 18.2%| 9.3% |                   |
| % aged 50 and over          | 13.7%| 15.8%| 24.5%|                   |
5.4 Theoretical reflections: The adoption of technological innovation

Technological innovation has been a hallmark of the engineering industry, as evidenced in the historical section of this chapter. New Zealand's isolation meant that engineers had to be adaptable; a 'No. 8 fence-wire' mentality. Electrification between the wars and the rapid adoption of new technology after 1945 required changing skill sets and job definitions. Although the deskilling of some facets of engineering clearly occurred, apprenticeship, implying (if not always delivering) the acquisition of a wide range of skills, continued to be the favoured means of training. This was supported by the triumvirate apprenticeship committees at the practical level. At a deeper level, the Fordist consensus provided an environment in which the notion of cost-benefit analysis was not necessarily considered. Thus, the perceived obligation to train, and a cost-plus mentality (in both government departments and private firms), often insulated those businesses from making training decisions based upon the savings that technological advances may have offered. Therefore, the apprenticeship system in engineering was able to survive the threat that technology may have posed.

Higgins (1993) confirmed the complexity surrounding the adoption of technological innovation. In her detailed examination of the post-1984 engineering industry in Canterbury, she argued that while computer numerically controlled (CNC) machines had allowed some shedding of labour and had altered the skill mix required, there remained a demand for skilled workers with an awareness of different aspects of the production process. The power of the Engineers’ Union also “encouraged not only the protection of its occupational boundaries, but also the expansion of the skills of its members, together with full recognition of all new skills” (Higgins, 1993, p.229).

More recently, the demands of international competition have required (in some cases), on one hand, the adoption of extremely high-tech machinery and processes and, on the other, an 'old-fashioned' attention to detail and quality of which the master craftsmen of old would have thoroughly approved. It is clear that the adoption of technological innovation in the engineering industry has been but one aspect of the survival or growth of that industry. While technological advances are the essence of engineering, the way in which they are
implemented in the workplace depends upon a plethora of factors. Who will use such technology is contested and negotiated at the point of production. How the technology is used depends upon the manner in which the firm is organised. What is produced with that technology is dependent on business decisions that are greatly influenced by wider economic and political factors. In turn, the choices made regarding all those intersecting factors have a great impact upon how skill formation is organised in the industry.

Summary
In this chapter, I have examined skill formation in the engineering industry, focusing on the Canterbury region. Engineering was at the heart of Canterbury manufacturing for many years and a good number of young men (and a tiny number of women) 'served their time' in one of the numerous engineering workshops. When the industry collapsed in the 1980s, the loss was deeply felt. Those firms who did survive, and the new firms who have emerged, have adapted to a more competitive environment and many are at the 'cutting edge' of technological development, producing highly specified goods for the international market. Yet, the industry struggles with perception issues that impact upon the number and calibre of new entrants. This, along with the shortfall in training from the years of firm closures and restructuring, has meant a serious shortage of skilled tradespeople in an industry that makes a significant contribution to the New Zealand economy.
CHAPTER SIX

THE ELECTRICAL INDUSTRY

The electrical industry has been fundamental to New Zealand’s development. Electricity powered many of the technological advances that supported the country’s standard of living. It was first used in the extractive industries in the late nineteenth century; was widely adopted in some areas of agriculture; was both the rationale for and the source of much of the infrastructural development of the twentieth century; and now is the basis (albeit often unacknowledged) of the information technology ‘revolution’. In this chapter, I examine this industry, focusing on the training of electricians in the commercial and domestic arena (as opposed to electrical workers in the power generation and distribution industry).63

The electrical industry has a long history of apprenticeship training. It is a highly regulated industry, and was one of the few sectors to maintain much of that regulation throughout the 1980s. The need for electrical workers to be registered led to industry initiatives in maintaining training through the recession of the late 1980s and early 1990s, when the downturn in apprenticeship numbers seriously threatened the stability of the industry. As part of the construction industry, which has always been regarded as a good ‘barometer’ of the economy, and as an industry with a high concentration of small employers, training levels are particularly sensitive to cyclic economic fluctuations. Although not the only industry to be affected by the contraction of state services through the late 1980s, I use the electrical industry to show the impact of those changes on the workforce, and its training regime.

63 While there are several interesting labour force issues regarding the electricity supply sector, such as workers being solicited by overseas employers (Koslow, 2003), these are outside the scope of this research.
6.1 History: Powering New Zealand's infrastructure

The development of a reliable and cost-effective energy supply was crucial as New Zealand moved out of the settlement phase and began to acquire the trappings of a 'modern' society. Coal was the 'premier' energy source through the late 1800s, fuelling steam power for refrigeration, transport, industry and gas production (Rennie, 1989). Nevertheless, despite New Zealand's small size and geographical isolation, and competition from the already established gas industry, the burgeoning technological innovations surrounding electricity were adopted rapidly, as their commercial and practical application became clear (Martin, 1998).

New Zealand's topography is well suited to hydro-electric power generation. This was first taken advantage of by gold-mining companies in the late 1880s, and electric power was adopted "early and with enthusiasm" by other industries (McKinnon, 1997, Plate 88). The local governments of Wellington and Christchurch soon realised the benefits of electricity and took control of power generation in the 1880s, with most of the main cities being 'electrified' by 1900 (Brooking, 1996).

Both the ethos of the 1891 Liberal Government and the practical difficulties of expanding the coverage of electrical power supply, however, meant that central government regulation soon evolved, culminating in the Waterpower Act 1903. This gave the state the "sole right to use water for generating electricity", with the development of electricity (until the 1980s) "not subject either to calculations of immediate profit or to local authority interest" (Martin, 1998, p.37). Thus, electricity supply was centralised and standardised, and the distribution network expanded rapidly, significantly into rural as well as urban areas. "Supply fostered demand" and, in the 1920s, consumption increased at the "phenomenal" average rate of 22 per cent per annum. This 'load building', encouraged by the state, led to power shortages, which were common until capacity caught up with demand in the late 1950s (McKinnon, 1997, Plate 88).

As the use of electricity increased exponentially, the need for a skilled and regulated workforce to service the industry became clear. The 1925 Electrical Wiremen's Act set up nation-wide examinations and licensing regulations, which had previously been the domain
of the local supply authorities. The Electrical Wiremen’s Registration Board (EWRB) was constituted under this Act, with Electrical Wiring Regulations gazetted in 1927 (Rennie, 1989); *New Zealand Statutes*, 1925). There were 2091 registered tradesmen in 1927 (NZPD, v.298, 1952, p.1751).

The post-war years

The booming post-war economy created some problems. The early post-war years were marked by a severe labour shortage, leading to high levels of labour turnover. There were also critical shortages of housing and electric power supplies, and many consumer items were also in high demand. The manufacturing sector had expanded rapidly during the war, and factories, as well as the building and construction industry, were the hardest hit by the labour shortages. Immigration was the favoured solution to the labour shortage, particularly to meet the insatiable demand for skilled workers: “the ‘phone call to try to get a plumber or an electrician to repair some fault was an event a householder would regard with trepidation and little confidence” (Gould, 1982, p.57).

The *Electricity Act 1945* set up the State Hydro-electric Department, under whose auspices the Electrical Wiremen’s Registration Board then came. The focus of this organisation in the immediate post-war years was to return servicemen with electrical training swiftly to the workforce, and to certify those offered electrical training under rehabilitation schemes (AJHR, D4, 1946-1950). The influx of overseas electricians was also an issue for the Board. Provisional licences were granted, with some exemptions made from written examinations for those who had City and Guilds of London certificates. In 1950, 121 provisional licences were granted, the highest number since 1926 (AJHR, D4, 1949-1950). As an interesting aside, there was a clear distinction made between migrants of British stock, and ‘foreigners’, who were required to pass a preliminary test before the provisional licence was issued (AJHR, D4, 1952). This is not to say that these tradesmen were not welcome, for example: “an increasing number of Dutch immigrants are endeavouring to qualify for registration, and although the language barrier is a handicap, the general impression of these new arrivals is promising” (AJHR, D4, 1951).

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64 This became the New Zealand Electricity Department (NZED) in 1959 (Rennie, 1989).
The importance of formal qualifications was another emphasis of the post-war years. The New Zealand Trades Certification Board was created in 1948 under the auspices of the *New Zealand Trades Certification Act*. The Act was initiated after the 1945 Commission of Inquiry into Apprenticeship recommended that the Education Department’s technological examinations should be revised and more extensively used. While the Electrical Wiremen’s Registration Board retained its power to set examinations and register the successful candidates, negotiations began in 1951 to bring examinations under the control of both the EWRB and the Trades Certification Board (TCB).65 The first Trade Certificate examination under the joint regime was carried out in September 1951 (AJHR, D4, 1952). In arguing for the importance of examinations in the trade, Mr Dudfield, the Member of Parliament for Gisborne, emphasised the role of the registration of electricians in protecting the public, and of raising the status of the trade. He also deplored the “stupid stigma attaching to the wearing of overalls, the stupid stigma of looking down upon people working with their hands and the glorification of the ‘white collar’ occupations” (NZPD, v.298, 1952, p.1757).

The ‘king’ of trades?
In recognition of the growth of electricity supply, the widening range of electrical installations and equipment, and the increasing numbers working in the industry, the *Electricians Act* was passed in 1952, superseding the *Electrical Wiremen’s Act*. The Act: replaced the term ‘electrical wireman’ with ‘electrician’; extended the qualifying period of training from three years to 10,000 (five years) indentured apprenticeship;66 extended the principle of apprenticeship to electrical servicemen; and made provision for limited registration for various classes of electrical worker. It also replaced the EWRB with an Electricians Registration Board (ERB), which was given disciplinary action over those carrying out faulty work (AJHR, D4, 1953).

As he introduced the Bill that preceded the 1952 Act, Mr Goosman, the Minister in Charge of the State Hydro-electric Department, argued that “people who go to the trouble and time to undergo training and become skilled should have their skill recognised” (NZPD, v.298, 1952, p.1751). The combination of technological intensification and the growing strength

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65 The Plumbers, Drainlayers and Gasfitters Registration Board and the New Zealand Motor Trade Certification Board also retained their independence from the TCB (Vocational Training Council, 1978).
66 This brought electricians into line with most other trades (NZPD, v.298, 1952, p.1752).
of the electricians' union facilitated such skill recognition, increasing the prestige of the trade.\textsuperscript{67} By 1972, "where once watersiders or miners set the pace in wage negotiations [it was] the electricians' award which act[ed] as an example and spur to other unions" (Roth, 1973, p.162).

As infrastructural development proceeded apace, labour shortages continued. From 1954 to 1957, over 300 provisional licences for overseas electricians and apprentices were granted each year. This number included 53 Australian tradesmen who arrived to work on the Kawerau pulp and paper project (AJHR, D4, 1954-1957). Various initiatives were carried out in the mid-1950s to publicise apprenticeships. In Christchurch, for example, an Apprenticeship Week was held in November 1956. The aim of the week was not seen as a full-scale recruitment drive; rather it was to "encourage boys [sic] to take up a number of trades in those industries where the numerical strength of the skilled labour force has become unbalanced".\textsuperscript{68} Of particular concern were the low numbers attracted to the trades related to carpentry and joinery: plumbing, electrical, plastering and bricklaying. The Commissioner of Apprenticeship, in an address to the Master Builders' Federation in March 1955, had argued that the campaign to attract apprentices to the building industry had been too successful, and had disturbed the correct ratio between the trades (LEG 5(2), May 1955, p.34). It was hoped that the week would also promote a higher social status for apprentices and further the acceptance of the importance of craftsmanship, stressing also the higher standards of skill required for modern industry.\textsuperscript{69}

Throughout the 1960s the number of apprentices grew steadily although (reflecting the concentration of electricians in the volatile construction industry), the number of apprenticeship contracts "exhibit[ed] variations similar to the rise and fall of business activity in the economy" (Department of Labour, 1972, p.15). Immigration remained an important source of new electricians, with the number of provisional licences reaching a peak of 752 in 1969 (AJHR, D4, 1964-1970). The growing emphasis on technical education and formal qualifications was embraced by the electrical industry. By 1971,

\textsuperscript{67} The membership of the electricians' union grew from 2570 in 1946, to 8187 in 1971 (Roth, 1973, p.162).

\textsuperscript{68} New Zealand Carpentry and Joinery Industry Apprenticeship Committee Minutes: Report on Apprenticeship Week held in Christchurch, 5-11 November 1965, MB 26, A9, 3E, Macmillan Brown (MB) Library, University of Canterbury.

\textsuperscript{69} New Zealand Carpentry and Joinery Industry Apprenticeship Committee Minutes: Report on Apprenticeship Week held in Christchurch, 5-11 November 1965, MB 26, A9, 3E.
electricians were one of the more highly qualified trades, with 65 per cent having a Trade Certificate. This was reflected in their wages, as the trade became one of the more highly paid (Department of Labour, 1972).

The wider pressures on the apprenticeship system felt during the 1970s (see Chapter Three) were also evident to a degree in the electrical industry. In particular, technological changes meant that legislative changes were necessary to reflect the broadening nature of electrical work. The Electrical Registration Act 1979 recognised the growing class of appliance service people, and radio and electronic service people (NZPD, v.424, p.2222), as shown in Table 6.1. There was an increasing emphasis on safety, with the Act setting "standards of skill for electrical workers when carrying out prescribed electrical work in the interests of public safety" (AJHR, D6, 1980). Indeed, the problem of unauthorised electrical work (in keeping with the great New Zealand 'DIY' tradition) exercised a 'considerable' amount of the ERB's time (AJHR, D6, 1982). An Electrical and Electronics Industry Training Board was established in 1982 to coordinate the industry's varied training requirements, to provide an industry focus and articulate training requirement to educational and government bodies (Freeman, 1990).

Table 6.1: Current electrical registrations, 1982 (AJHR, D6, 1982)

<table>
<thead>
<tr>
<th>Inspectors</th>
<th>Electrical technicians</th>
<th>Electricians</th>
<th>Electrical mechanics</th>
<th>Radio/electronic servicemen [sic]</th>
<th>Electrical appliance servicemen [sic]</th>
<th>Restricted certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>609</td>
<td>2037</td>
<td>12,820</td>
<td>472</td>
<td>3405</td>
<td>342</td>
<td>1432</td>
</tr>
</tbody>
</table>

6.2 Recent developments: Restructure or be dam(n)ed!

The Fourth Labour Government

The election of the Fourth Labour Government in July 1984 marked the beginning of fundamental and far reaching changes to New Zealand. The combination of harsh economic

70 'Do-it-yourself'.

conditions, a country tired of the authoritarian interference during the Muldoon years, and an incoming government brimful with new ideas, ensured the climate for reform was in place. The economic crisis that occurred immediately after the election provided the kick-start required to initiate the extensive reforms:

Within a year of a change of government in July 1984, interest rates were deregulated, international capital restrictions had been removed, the currency was floating freely in foreign exchange markets and most agricultural subsidies and tax incentives were being phased out (Dalziel, 2002, p.31).71

Hand in hand with economic reform was the perceived need to reform the public sector, which was regarded as inefficient and expensive. The Economic Statement, issued in December 1985,72 “announced a set of principles for state-owned enterprises (SOEs) that produced goods on a commercial basis”, including the removal of responsibility for non-commercial functions, managerial responsibility, and the removal of ‘unnecessary’ barriers to competition, so that SOEs could be judged on commercial criteria (Easton, 1997, p.22). Thus, under the State-owned Enterprises Act 1986, the New Zealand Electricity Department (NZED) became the Electricity Corporation of New Zealand Ltd (known publicly as Electricorp) in February 1987. This involved extensive restructuring of the organisation, at the same time as electricity generation and distribution was being deregulated (Spicer, Bowman, Emanuel & Hunt, 1991). The impact of these changes has been far-reaching, but what is of interest for this thesis are the ramifications for training:

When public sector organisations were privatised or corporatised, they started to take a much more short-term, commercial approach to vocational training and often cut their staffing numbers dramatically. Likewise state and local government reduced staff numbers and adjusted their training programmes (Deeks & Rasmussen, 2002, p.382).

The NZED had recruited, on average, around 90 apprentices each year from 1972 to 1982, and the public sector as a whole took an average of just under 130 electrical apprentices each year during the same time span (Department of Labour). Anecdotal evidence would suggest that government apprentice intakes were used on some occasions as part of an active labour market policy, particularly during the Muldoon years. While numerically perhaps not hugely significant (see Table 6.2, p.169), government apprentices played an important role in both the quality and quantity of training in New Zealand.

71 Dalziel (2002) provides a comprehensive assessment of the efficacy of the reforms.
Table 6.2: New apprenticeship contracts (male): Private sector versus government departments, 1975-1983 (Department of Labour)

<table>
<thead>
<tr>
<th>Year Ended 31 March</th>
<th>Private sector (males)</th>
<th>Government departments (males)</th>
<th>% employed by government</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>8728</td>
<td>702</td>
<td>8.0%</td>
</tr>
<tr>
<td>1976</td>
<td>7326</td>
<td>678</td>
<td>9.3%</td>
</tr>
<tr>
<td>1977</td>
<td>8006</td>
<td>758</td>
<td>9.5%</td>
</tr>
<tr>
<td>1978</td>
<td>7053</td>
<td>1150</td>
<td>16.3%</td>
</tr>
<tr>
<td>1979</td>
<td>6808</td>
<td>748</td>
<td>11%</td>
</tr>
<tr>
<td>1980</td>
<td>6356</td>
<td>796</td>
<td>12.5%</td>
</tr>
<tr>
<td>1981</td>
<td>5950</td>
<td>747</td>
<td>12.6%</td>
</tr>
<tr>
<td>1982</td>
<td>7244</td>
<td>563</td>
<td>7.8%</td>
</tr>
<tr>
<td>1983</td>
<td>6286</td>
<td>555</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

While it is accepted that the cost of training government apprentices may not have been transparent prior to commercialisation and that, therefore, the benefits gained from such training could not explicitly be ‘accounted’ for, there is little doubt that the training provided contributed greatly to New Zealand’s economy. In 1980, New Zealand Railways argued, for example, that through its apprentice schools the Department “train[ed] many apprentices for the benefit of the private sector without the Department being recompensed for the cost of this valuable training”\(^{73}\) (New Zealand Railways, 1980, p.7). In addition to the role played by government departments in ‘topping up’ the number of private sector apprentices, the training that was provided was often high quality and specialised. For example, the trade of electrical fitter was only available at the NZED:

\[\text{\it The official title was a hydro-electric apprentice, and basically that meant I was an electrical fitter, which gained me registration as an electrician and also trained me in skills as a fitter-turner and welder. It was a pretty unique thing then, covering that amount of skill, if you like, and for that reason it}\]

\(^{73}\) It was calculated that for the year ended March 1980 a net cost of $3 million was spent on training (New Zealand Railways, 1980).
was a 1000 hours longer than a standard electrician's apprenticeship, or any other apprenticeship, for that matter. Most of them were 8000 hours, whereas ours was 9000 hours...we spent time in the drawing office, we had engineering lectures and things of that...you know, metal technology, and various things of that nature (Interview with electrician).

As part of the specialised nature of the training, NZED apprentices were moved around the country, gaining a wide range of experience, and being exposed to many different skills:

Then, after the first year, you spent various periods of time in various departments. For instance, I spent the beginning of '76 at Aviemore power station on maintenance, power station maintenance, and then I came back to Christchurch and spent some time at Islington on sub-station maintenance, and then I spent some time on sub-station construction, and power station construction. I had six months in the North Island, to get some experience up there on the Huntly power project (Interview with electrician).

The expense involved in such training if unsupported by government money precludes it from being offered today. The contracts manager of an electrical distribution company spoke of attempting to provide her company's apprentices with a similar experience, without the support of a 'bottomless pit' of government money:

The one thing that I'm doing, and I don't know if they're doing it anywhere else, is the moving them around, 'cos that was the thing that used to happen. In the old days, they had a training school here...and they all came down here, and they went to school, and then they tripped round the countryside. All that's gone. And you're in an environment where it's a lot harder. If I'm sending this kid away, he's only getting paid a little bit of money, who pays for him to stay away for three months, while he's learning the things?...We can't afford to, because we don't have the margins and the money to do it...You could put the [NZED apprentices] in the workshop with 20 pieces of metal, and tell them to drill the holes and then throw it away at the end of the day, because you didn't have to worry about it. It's a lot different now... (Interview with contracts manager, electrical company).

The loss of the sort of training that organisations such as the NZED offered is mourned by those who took part:

It was a huge department, a huge depot, where we worked. There would have been, I wouldn't like to think...a couple of hundred anyway...the store, for instance, was a huge building, and the mechanical workshop would have employed 20 fitters and turners and three or four welders. There would have been ten storemen in the store; there were two plumbers; four painters; a yard foreman who looked after all the vehicles and the cranes and so forth, and he had two hands to help him. There was the depot superintendent; and two in administration; the tea lady, of course, she was an important part of
the whole operation. We were right beside one of the sub-stations so, there were three or four operators on at any one time, and that was a 24 hour shift. The test-room technicians, there were ten or twelve of them; there were communication technicians, there would have been six or eight of them, and of course the training centre, there would have been half a dozen people running that, so it was a huge place...did I mention, they had their own garage? So there were six mechanics, and a field mechanic who would go out and look after...remembering that all this equipment that they used to build transmission lines from power station to power station, or sub-station to sub-station, from here to Nelson and Twizel, was all depoted where we were.. And there were linemen of course, all the line-gangers and...

I've been back, to what was this huge depot, it's been turned into a store, the whole thing, every building is a store, it's basically the South Island storage depot, and there would be three storemen. The sub-station's been automated so there's no operators there any more, it's remotely operated, there isn't a trade left, not a trade, not a one, the place is empty...except for three storemen...so there would have been, easy, 200, say 250 staff, and now there's three...very, very sad (Interview with electrician).

The 1990s

Aside from the direct impact of the loss of government training positions, training in the electrical industry during the early 1990s was also affected by the flow-on effect of massive redundancies and the need for the newly constituted ‘commercial’ entities to turn a profit. These factors were compounded by a downturn in the building industry, and by the general nature of the electrical contracting business. The regulation of the electrical industry was under review, as was the apprenticeship system. Thus, the industry faced a great deal of uncertainty; “the three big issues facing electrical contractors in 1990 are competition, deregulation and training” (Sheehan, 1990a, p.12).

Many ex-government electricians had set up as ‘one-man bands’, requiring only a ‘van and a ladder’ to compete in the increasingly cut-throat market. Uncertain work-loads and small profit margins meant that taking on an apprentice was often out of the question for such ‘itinerant’ operators (Sheehan, 1990a). The oversupply of electricians was also a deterrent to training for some: “Some in the industry feel that there is little point in producing registered electricians so that they can join the dole queue” (Freeman, 1990, p.41). A pool of available electricians contributed to the trend for some companies to hire on a ‘labour-

74 As the NZED was restructured into Electricorp all 6000 jobs were reviewed. More than 1000 employees took voluntary severance and by 1988 staff numbers had been reduced by a quarter (Martin, 1998).
only basis, which also affected the capacity to train: “Work has to be done at a maximum of efficiency in the minimum number of hours. There isn’t time to show young people how to do things” (Sheehan, 1990a, p.13).

The resulting change in the occupational status of electricians from 1981 to 2001 is shown in Table 6.3. While the number of electricians employing labour increased from just under five percent in 1981 to 8.8 per cent in 1986, it has remained relatively stable since then. The percentage of self-employed (not employing others) electricians, however, doubled between 1981 and 1991, from 9.3 per cent (849) to 18.6 per cent (1926) of the total, and has steadily increased since then, to 24 per cent (2376) in 2001. The changing shape of the occupational status of the industry clearly had ramifications for training; ‘one-man bands’ often had neither the capacity nor the desire to employ apprentices.

Table 6.3: Occupational status of electricians (employer and self employed), 1981-2001

(Department of Labour, 1972; Statistics New Zealand, 2003a)

<table>
<thead>
<tr>
<th>Year</th>
<th>Employer of labour</th>
<th>Self-employed (not employing others)</th>
<th>Total no. of electricians</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>450 (4.9%)</td>
<td>849 (9.3%)</td>
<td>9174</td>
</tr>
<tr>
<td>1986</td>
<td>876 (8.8%)</td>
<td>1335 (13.4%)</td>
<td>9999</td>
</tr>
<tr>
<td>1991</td>
<td>882 (8.5%)</td>
<td>1926 (18.6%)</td>
<td>10374</td>
</tr>
<tr>
<td>1996</td>
<td>825 (8.5%)</td>
<td>2157 (22.2%)</td>
<td>9708</td>
</tr>
<tr>
<td>2001</td>
<td>969 (9.8%)</td>
<td>2376 (24%)</td>
<td>9915</td>
</tr>
</tbody>
</table>

As part of the restructuring process of Electricorp, the various components of the company were turned into profit-oriented business units (Spicer et al., 1991). The design and construction section, where most of the remaining electricians were concentrated, was renamed PowerDesignBuild and was to “survive on its own merits”, competing for both

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75 That is, workers are hired at a set hourly rate, from which they pay tax, for a set duration.
76 This number may be understated, as employers may define themselves as other than ‘electrician’ (Department of Labour, 1972).
Electricorp work and external contracts (Spicer et al., 1991, p.36). Also competing on the open tender market were some of the recently ‘commercialised’ local electrical supply companies. For example, in 1991 there was a ‘furore’ raging in Canterbury, as Southpower was accused of using local body rates and revenue from electricity sales to subsidise their electrical contracting business (Sheehan, 1991). As the editor of the New Zealand Electrical Focus commented: “You know it’s tough out there when local authorities and ex-government departments are forced to send out their workers to compete on the open market” (Sheehan, 1990b, p.3).

Thus, the number of new entrants into a market that was already overcrowded because of a lack of work exacerbated the situation. The larger firms, a source of many apprenticeship opportunities, were also exposed to the uncertainty created by the tight economic conditions. Large commercial construction projects had more or less dried up after the share market crash of October 1987. An ongoing issue in the construction industry, which becomes particularly significant in an economic downturn, is the payment of sub-contractors (such as electricians). First, payment is only received after the main builder has been paid so sub-contractors are vulnerable if builders delay payment or go into receivership. Second, ten percent of the total price of the contract is retained by the builder until twelve months after the job is completed. In tight economic conditions, this has a detrimental impact on sub-contractors’ cash-flow. There was also much talk in the early 1990s of deregulation of the electrical industry. While this did not occur until 1993, it added to the climate of uncertainty surrounding the industry.

Many electricians did keep training through these years:

> Sparkies love training apprentices, and really and truly even through perhaps the ‘dull’ days of apprenticeships, you know, ten years ago, there was still electrical apprentices being trained by companies, whereas there wasn’t carpenters, there wasn’t plumbers. You know, although our industry hasn’t got enough tradesmen now, the other industries are worse off

(Interview with electrical group training company official).

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77 The former Central Canterbury Electric Power Board (Britten, 1999).
78 The journal of the New Zealand Institute of Electricians.
79 Some of these concerns were addressed by the Construction Contracts Act 2003, which aimed to provide more certainty of payment to subcontractors (“Electrical maintenance covered by new Construction Contracts Act,” 2003).
The cumulative impact on training of all of the factors mentioned above, however, is shown clearly in Table 6.4, which shows new apprenticeship contracts biennially from 1972 to 1992.

Table 6.4: New apprenticeship contracts (electrical), 1972-1992 (Department of Labour, 1984-1993)

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>Government</th>
<th>Total</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>591</td>
<td>128</td>
<td>719</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>701</td>
<td>105</td>
<td>806</td>
<td>+12.1%</td>
</tr>
<tr>
<td>1976</td>
<td>694</td>
<td>107</td>
<td>801</td>
<td>-0.07%</td>
</tr>
<tr>
<td>1978</td>
<td>634</td>
<td>210</td>
<td>844</td>
<td>+5.4%</td>
</tr>
<tr>
<td>1980</td>
<td>529</td>
<td>124</td>
<td>653</td>
<td>-22.6%</td>
</tr>
<tr>
<td>1982</td>
<td>660</td>
<td>99</td>
<td>759</td>
<td>+16.2%</td>
</tr>
<tr>
<td>1984</td>
<td>548</td>
<td>-</td>
<td>548</td>
<td>-27.8%</td>
</tr>
<tr>
<td>1986</td>
<td>802</td>
<td>-</td>
<td>802</td>
<td>+46.3%</td>
</tr>
<tr>
<td>1988</td>
<td>739</td>
<td>-</td>
<td>739</td>
<td>-7.9%</td>
</tr>
<tr>
<td>1990</td>
<td>523</td>
<td>-</td>
<td>523</td>
<td>-29.2%</td>
</tr>
<tr>
<td>1992</td>
<td>190</td>
<td>-</td>
<td>190</td>
<td>-63.7%</td>
</tr>
</tbody>
</table>

Industry Response

The downturn in apprentice numbers was noted at industry level. In the early 1990s a consortium comprising the Communication and Energy Workers Union (CEWU) and the Electrical Contractors Association\(^{80}\) (Ecanz) formed a group training company called The Electrical Training Company (ETCO).\(^{81}\) There was also a similar regional initiative, coyly named ‘Rent-a-Prent’, from the Canterbury/Westland branch of Ecanz (“Trade training in transition,” 1992). The tale of its formation illustrates well the importance of informal linkages and goodwill in the maintenance of training:

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80 In 2003, Ecanz had a membership of 1355 businesses and its members employed 7000 electrical workers, with total annual combined sales of $700 million (Electrical Contractors Association of New Zealand, 2003).

81 The CEWU was formed in April 1992 as the New Zealand Post Office Union and the New Zealand Electrical, Electronics and Related Trades Union merged. The 24,000-member union suffered from severe financial difficulties from the outset and collapsed in November 1995, leaving Ecanz as the sole owners of ETCO (Prasad, 2001).
I was District Commissioner here in Christchurch [in the early 1990s], and the local Ecanz branch, three or four people in particular, came to me and said, 'We like the look of what's happening; is there anything that we can do here?...because we've got young people trying to get apprenticeships, there's been a downturn'. So I said, 'Yes, we can start up a group apprenticeship scheme, if you own it, you're the employer...'. So I worked with some of these executive people, and we got some money out of Skill NZ Head Office, some money under the 'Jobs Plus' scheme for unemployed people. We started off small and built it up, it's been going now for ten years, and probably in excess of 70 young people have been taken into apprenticeships through the scheme and put into permanent placement. And it's still going and it's been very successful, a good model (Interview with electrical ITO official).

The group training scheme grew rapidly, gaining widespread industry acceptance. ETCO has employed over 460 apprentices from its inception to 2002. After 1999, some regional training co-ordinators also became Modern Apprenticeships co-ordinators. The scheme has been successful for four reasons. First, the scheme's timing was opportune, as the sluggish construction sector began to move again after 1992. Second, it is a cost-effective way for employers to gain the benefits of having an apprentice, without the full commitment required of employing their own apprentice. This is particularly important in an industry with a high proportion of small to medium-sized businesses. Third, the scheme has high standards and turns out high-quality tradespeople:

The skill levels that appear to be coming out of the ETCO-employed people are very high...you can only go by trade examinations or assessments, or competitions that they've entered in...they're the frontrunners all the time, way and above better performers (Interview with electrical industry official).

Indeed, in some areas ETCO moved to become a training provider as well as an employer. In Dunedin, for example, the Otago Polytechnic electrical school closed and was replaced by ETCO-delivered training. Finally, although there were industry concerns about deregulation through the early 1990s, the 1993 legislative outcome, the Electricity Act, while allowing home-owners to perform a wider range of electrical work, retained the compulsion for electricians to be registered (Stockdill, 1993):

Our industry has always been different in that we're registered still; we still need to get a qualification, whereas a carpenter's apprentice can go through his apprenticeship, sit his exams and fail, and still come out as a carpenter...Fortunately, with our industry you need to have your regs and all your exams to become a registered electrician to have a practicing licence.

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82 One respondent estimated that nearly 90 per cent of the members of Ecanz were two person or under firms.
Probably been the saviour of us, really, and the saviour of our apprenticeships. Certainly the only reason that ETCO can provide what we provide, is because we have a commodity, a sought-after commodity (Interview with electrical group training official).

6.3 The current environment

Overview

The electrical industry in Canterbury (and in New Zealand as a whole) thrived throughout 2002 and 2003 as the construction sector boomed. The domestic dwelling market was strong, fueled by both the demand created by immigration and extensive subdivision in the Christchurch area. Several large building projects, such as the Christchurch Art Gallery, major mall redevelopments and a new stand at Jade Stadium, occupied commercial firms.

The two most salient concerns expressed during the interviews, carried out with six respondents during 2002 (see p.122), were first, that of the shortage of skilled tradespeople in the electrical industry and second, the low status of the industry, and the trades in general. These issues clearly interpenetrate (see Part Two, Introduction, pp.132-136, for an extended discussion): the status of an occupation, far from being an objective reality, is determined by a complex mix of economic, social and perceptual factors. In turn, the perceived status of an occupation has a huge impact on recruitment and retention in the occupation.

Training regime

Recruitment

Electrical apprentices may be recruited from pre-trade courses held at both the Christchurch Polytechnic and the Southern Institute of Technology (SIT), they may apply directly to ETCO; or (increasingly rarely) be employed directly by an employer. Both pre-trade courses require three years of secondary schooling and passes in School Certificate (or

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83 For example, the number of residential building permits issued in Canterbury grew by 29 per cent in 2003 (Canterbury Development Corporation, 2004).

84 See Chapter Four (p.100). The SIT Christchurch campus expanded from 1997, offering a wide variety of courses. The ensuing 'fees war' with Christchurch Polytechnic has meant 'zero fees' for some courses, including the electrical and engineering pre-trade courses.
NCEA) Mathematics and English. ETCO apprentices have stricter entrance criteria: they must have passed Year 11 Mathematics, English and Science, and sit a set of five aptitude tests. This may help account for the generally high level of performance of the group training company's apprentices (see pp.175-176).

Organisation

As with the engineering industry, apprentices may be directly employed; may be directly employed under the Modern Apprenticeship scheme; may be employed by the group training company as a Modern Apprentice; or employed by ETCO, but not as a Modern Apprentice. All electrical apprentices have a signed agreement with the Electrotechnology Industry Training Organisation (ETITO).

Assessment

The theoretical components of the electrical qualification are taught at Christchurch Polytechnic. Apprentices attend regular evening classes and a two-week block course once a year. The Polytechnic will also arrange intensive one-off courses on specific subjects if there is a demand. ETCO apprentices, however, while attending the Christchurch Polytechnic for evening classes, do a two-week induction course and their yearly block course at ETCO's Dunedin training centre. This centre has supplanted polytechnic electrical trades training in Dunedin. On-job assessment is carried out by either workplace-based or 'roving' assessors, who are accredited by ETITO:

Basically I'm the apprentice co-ordinator and I look after the on-job reports. I've got the training for the on-job reports part of the apprenticeship. Nowadays they do their off-job at the polytechnic, and to get the on-job experience there's a variety of tasks and electives, so in order to pass their polytechnic, and their on-job qualification... what it basically is, there's a list of tasks from the ETITO; they set out a task for the apprentice, based on the knowledge and practical experience of doing that, so as the trainer, you've got have that practical experience. They would put them on jobs and then their supervisor on the job, they'll keep the diary. For instance, say they wired up a switchboard, you know, several switchboards then they write in their diary, which job they're working on, and then they give it to the supervisor to sign it off. And then, when they think they're ready for an assessment, they'll call me, make an appointment, and I'll go down there and I'll look at the task which they want to sign off, and then I'll test them verbally, give them a few questions; how did they do it, any ways they could...

85 For a further discussion of the role of private training establishments, see Chapter Seven (pp.200-202).
do better, problems they had while they were doing it. Then I just have a quick look at exactly what they did, have a look at how they’ve carried out their task. If I was happy with that, I’d sign it off, and then that’s one unit done... [To be an assessor] I’ve already got my electrical training, you have to have that, plus at least 5 years experience after your apprenticeship. Then basically they [ETITO] give you their testing regime, and how they want the system delivered (Interview with contracts manager, electrical company).

To complete the National Certificate, apprentices must sit three examinations: theory, practical and electrical regulations. Completing the formal apprenticeship, however, is only part of the process of becoming an electrician. As the industry has retained a requirement for registration, once an apprentice has achieved the National Certificate, they must apply, via their employer, for registration from the Electrician’s Registration Board. Once this is granted, there is also a requirement for regular refresher courses in first aid and industry safety requirements.

Industry issues

Skill shortages

As discussed in the introduction to this section, the balance between the supply and demand for labour in an industry is a complicated interplay, dependent on both social and economic factors. While it is hard to quantify, my respondents were unanimous that there was a severe skill shortage in the electrical industry. Several reasons were suggested for this. The first factor was the combination of the contraction of training through the 1990s and the current boom in the construction industry. Second, there is a longstanding tradition for recently qualified tradespeople to ‘do their OE’. Although many return, the lure of high wages overseas ensures a steady stream of temporary emigrants. The third factor suggested was the effect of one-off projects that had displaced labour. For example, at a national level the America’s Cup, held in late 2002 and early 2003, drew labour to Auckland, and internationally, the 2000 Sydney Olympics attracted many New Zealand tradespeople:

While the Olympics were on, there were electricians getting between $25 and $35 Australian, so there was a huge amount went to that. And when you’re over there and the sun’s shining and you’re used to earning that... the rates have probably stayed up in Australia, once they’re up there they don’t tend to drop off, they might come back a few dollars, but I would expect that they’re right up there. And the Australian economy’s coming right again... so you

86 ‘Overseas experience’. One respondent reported re-employing the same tradesman three times, after his return from various overseas escapades.
wouldn't want to come back to Dunedin or Christchurch where you're going to get $17 or $15 an hour when you can get at least $10 an hour more over there, and have a good life style (Interview with director, electrical company).

The level of remuneration in the industry was viewed by one respondent as the major contributing factor to skill shortages:

I think the problem, one of the real basic problems is, and it's so basic and so obvious, is that the industry needs as a whole to look at the wages and remuneration for a young trainee coming out of school, and walking into the adult world, and getting paid, (I know in the electrical industry it's about $6.30 an hour, and probably in other trades it's less, so it's not just the electrical industry that's paying poor wages), - that's one of the major problems. Until industry picks up that, pays more for those people, and it flows on, they've got to be able to earn more when they come out of their apprenticeship, and people have got to accept that it costs more for someone with those new skills...that's my major issue...I think its horrible that someone can come in and get paid $6.30 an hour (Interview with electrical industry official).

Finally, and inextricably linked with the preceding issue, is the low status of the industry:

It [the electrical industry] isn't being promoted as being glamorous, so why would you want to go and work for a probably old ditch-digging, cable pulling job, at $6.30...you've got to promote to them that it's a better industry, and pay them more...It's an industry-wide thing, again the electrical industry's one of the worst industries...the public accept that an electrical worker working in their home is expected to be cheaper than a motor-mechanic fixing their car, or putting some oil in it, or giving it a check or stuff, even some of the other trades, the plumbing trade, the chap that fixes your leaking tap, the public accept that they'll pay probably pay $10 an hour more for a plumber...if you get it wrong in the plumbing industry, you get wet; if you get it wrong in the electrical industry, it's a totally different thing...so our industry has got to set its sights a bit higher, the public have to accept it, and we in turn need to pass it on to our employees, and it flows all the way down. So if you want any electrical work done, come to us and we'll charge you heaps...the same $45 an hour a garage mechanic charges... (Interview with electrical industry official).

Responses to skill shortages

There has been a raft of responses to the shortage of skilled tradespeople, at company, industry and governmental levels. One of the respondents was the contracts manager for the local branch of an international company that had a policy of having a training quota of ten
per cent of the company’s number of employees. Although in the past the company had been happy to utilise ETCO apprentices, the specialised nature of their business meant that they required training tailored more to suit their particular needs. Thus, a training package was developed by the Electricity Supply Industry Training Organisation (ESITO), with the unit standards provided by the Open Polytechnic, and the company now employs four apprentices in line with their policy.

The notion of such a training quota, intuitively a sensible solution to minimising skill shortages, raises many interesting points. First, the question of the administration and monitoring of such a quota is problematic. Businesses in New Zealand are already very sensitive to compliance costs, so regulation at government or even industry level could be seen as yet another burden. One respondent, who served his time in Australia, recounted how an informal quota was imposed:

*In Sydney on the construction sites, there was an unofficial rule, it was like five tradesmen to one apprentice and say you might have 30 plumbers on a job, the site project manager would just have a word, check how many apprentices they had, and he'd say, 'Right, you're a bit low on apprentices'. It was an unofficial rule, but they tried to implement that* (Interview with contracts manager, electrical company).

Second, as previously mentioned, the predominance of small businesses in New Zealand would make a quota difficult to impose. Finally, a quota is open to subversion, with the possibility of trainees being used as a source of cheap labour, as already reportedly occurs in some firms:

*There are plenty of electrical contractors out there that are just using unskilled and apprentice labour and the ratio of tradesmen to unskilled labour is pretty high... Trades assistants, yep, they know how to put up a bit of cable ladder, and they know how to run a bit of cable along it, but they don't have a license to terminate each end... we've tried to avoid that, others have avoided it by just loading themselves up with cheap apprentice labour, but we've tried to keep that ratio, you know, as low as possible, if you like, but when there's a shortage of tradesmen around...?* (Interview with director, electrical company; respondent's emphasis).

The industry’s group training scheme, ETCO, is one of the most visible responses to skill shortages, as previously discussed. While the scheme is popular, reservations were expressed by some employers, and acknowledged by the scheme’s training co-ordinator. The first issue was the ‘ownership’ of the apprentice:
Because they [employers] like to have ownership of their business and their employees, I'm sure that's half of it: 'he's my boy, not ETCO's, he's my boy' (Interview, training co-ordinator, group training scheme; respondent's emphasis).

The second issue was the tension between wanting (and encouraging) the more academically able recruits, without excluding those with an aptitude for the industry who were not as strong academically:

> I've got a mixture of interests in it because I know how ETCO is working, and how the trainees are coming out the other end, and then as an employer, we also have our own employees outside of that. The skill levels that appear to be coming out of the ETCO-employed people is very high... they have very strong aptitude tests, you don't just get into ETCO if you're Joe average. Whereas the employer, like us, we might end up employing the friend of a friend's son, because he's great with his hands, and 'Oh, he'll make a good electrician'... I don't know, depends what the industry needs.

Our company, and other electrical companies in this town, need people that are a combination of both...they've got to be good...they don't have to be rocket scientists, but they have to be good with their hands...we've got to be careful that we're not setting that too high...we like our own people, because at the end of the day, they come out as our company's 'clones', if you like; they are what we want (Interview with director, electrical company).

At the government level, the Modern Apprenticeships initiative was also in part a response to skill shortages. As discussed in Chapter Four, however, while the initiative has certainly been embraced by the electrical industry, the extent to which it has extended training is debatable.

### Status of the electrical trade

The respondents exhibited a general concern about the perceptions that they felt existed about the electrical trade, and the trades in general.

> The biggest push we've done was Careers Day, and that was interesting, but it was interesting how many people didn't even know what you could do in the electrical industry. They've got no idea. And it's 'boring', you know, it's a very hard thing to sell, because it looks boring...'Cos it's not a 'glamorous' industry (Interview with contracts manager, electrical company).

That problem of the public perception about the 'trade'... 'If you can't do anything else, go and be an apprentice', that is still out there in the community, and that's one of things our industry sectors have to struggle with, and education, awareness...awareness of the potential of training on
the job, through a traditional apprenticeship...what are the attitudes (in schools), where are they coming from, those attitudes, and what do we need to do as a nation? (Interview with ITO official).

Responses to status issues
The main thrust of the electrical industry’s attempts to ‘repackage’ itself is the ‘Bright Sparks’ initiative:

What is happening at the moment is that the industry’s taking, and it’s the ETITO that’s doing it, they’re taking it out into the schools, you might have heard about it, it’s an initiative called ‘Bright Sparks’. What they’re doing, they’re going to schools that want to get involved with it, and there’s been a lot of schools on board, mostly high schools, they’re trying to grab the person, 14, 15, that might have a bent towards electricity or electronics, and they’re trying to promote the industry as a future industry, as an exciting future with lots of diversification. They’ve actually been very proactive, the initiative’s great, and they’re hooking back into industry and asking them to be mentors to these kids... ‘Bright Sparks’ is hooked up to a website; the kids can...cos they love all doing that... They’re trying to make it sort of glamorous, for young men and women to get into. There’s a lot of skill there, and they’re trying to tap into it early, identifying talent early...It looks really good; the future is good for those kids who pick it up. They do projects, they encourage you to do an electronic project at home, and a mentor will come in and point you in the right direction... (Interview with industry official).

Industry Demographics
As with the engineering industry, the electrical industry is overwhelmingly male, with the proportion of women electricians remaining steady at around one percent of the total from 1991 to 2001 (Statistics New Zealand, 2003a). The composition of the electrical workforce is also ageing. Table 6.5 (p.183) shows the age composition of electricians from 1991 to 2001. The ramifications of this ageing workforce were noted in a recent report commissioned by the Electrotechnology Industry Training Organisation:

Almost 40 % of electricians presently employed are over 45 years of age, against which there has been a relatively low rate of new apprentice training in recent years. This suggests a looming shortfall that will not be easily dealt with through overseas recruitment (WEB Research Ltd, Competency International Ltd & Marilyn Davies and Associates, 2004, p.59).
Table 6.5: Changes in age composition of electricians, 1991-2001 (Statistics New Zealand, 2003a)

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<tr>
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<tbody>
<tr>
<td>No. of Electricians</td>
<td>10,374</td>
<td>9708</td>
<td>9915</td>
</tr>
<tr>
<td>Total Female</td>
<td>114</td>
<td>78</td>
<td>111</td>
</tr>
<tr>
<td>% aged under 25</td>
<td>25.2%</td>
<td>17.4%</td>
<td>14.7%</td>
</tr>
<tr>
<td>% aged 50 and over</td>
<td>12.3%</td>
<td>15.3%</td>
<td>22.4%</td>
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8.4 Theoretical reflections: The role of the state

As with the previous chapter, this case study of the electrical industry has shown the resilience of the apprenticeship system. Considering the battering that training within the industry received, as public sector training stopped, as the organisation of the electrical workforce moved to increasing numbers of self-employed and as the threat of deregulation promoted uncertainty, it is a testament to the strength of the system that training carried on more or less uninterrupted (albeit with smaller numbers).

Three reasons may be suggested for this. First, most electricians continue to require a breadth of skills. While some may branch out eventually into dealing with more sophisticated technology, a solid grounding in electrical basics is viewed as essential for all. Second, there is a robust culture of self-regulation within the industry. As shown by the story of the formation of the industry’s group training company, many electricians feel a sense of obligation to train. This ethos appears to have been impervious to economic or social pressures, and flies in the face of the short-term rationality that human capital theory would suggest. The third factor is also regulatory; the electrical industry was one of the few to escape wholesale government deregulation from 1984 and thus there is a legal requirement for registration, which makes training continue to be mandatory.

Thus, the electrical industry case study illustrates the paradoxical nature of the impact of state action. The deregulatory policies of the late 1980s had direct and indirect effects.
Directly, the withdrawal of public sector training removed both training places and a level of quality of training. Indirectly, deregulation contributed to changes in the nature of the electrical workforce, so that a commitment to training became more difficult for that reconstituted workforce. At the same time, however, the fact that the industry itself was not deregulated, along with the ingrained propensity to train of many electricians, ensured that training did continue.

Summary
In this chapter, I have examined skill formation in the electrical industry. The historical section showed how the skills required to service the 'new' electrical technology, initially supplied by a rag-tag of variously qualified people, were incorporated swiftly into a 'trade'. The electrical trade gradually attained a high status (among other trades, at least) because of the rigorous entrance requirements and the potentially dangerous nature of the work. The coherence of the trade, which was threatened by state action through the 1980s and early 1990s, ensured its survival as industry-based initiatives fostered training through years of restructuring and recession.
CHAPTER SEVEN

THE HAIRDRESSING INDUSTRY

For much of the twentieth century, ladies' hairdressing was the dominant female apprenticeship industry in New Zealand. As such, it provided a sound economic basis for many women, and was one of the few routes to self-employment for others. Many of the issues surrounding training in hairdressing are shared by the more male-dominated industries: low wages for apprentices or trainees, poor completion rates, high numbers of small businesses or owner/operators and the ongoing poor perception of the industry, for example. This chapter first discusses the history of ladies' hairdressing in New Zealand, and then examines the current situation.

7.1 History

After World War One, much of the western world was swept with change and a general loosening of social restrictions. In New Zealand, by 1921, women constituted about 24 per cent of the workforce, family sizes were being limited, and "young women possessed a freedom and autonomy that their mothers had not had" (Olssen, 1996, p.265). In the mid-1920s, in this prevailing spirit, short hair for women became fashionable. The 'bob' and the 'shingle cut' were both associated with "increased physical and political freedoms", and necessitated regular visits to the hairdresser (Smith, 1998, p.35).

Initially, the haircuts were carried out at gentlemen's hairdressers, as the existing ladies' hairdressers were skilled at the 'dressing' of long hair (usually in private homes), rather than cutting. As the women gained cutting skills, many of them travelling overseas to train,

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87 The occupation was known as 'ladies' hairdressing' until the mid 1980s. While the development of gentlemen's hairdressing is also interesting, particularly given the current resurgence of interest in the barbering trade, this chapter will focus on the female dominated 'ladies' hairdressing'.

88 This section draws heavily on Smith's (1998) University of Otago PhD, The business of beauty: A history of hairdressers 1920-1960. There is very little other academic work on hairdressing in New Zealand.
the number of ladies’ hairdressing salons increased, jumping from 100 in 1921, to 1500 in 1936, and the feminisation of hairdressing in New Zealand began (Smith, 1998).

Alongside the broadening of skills engendered by the fashion for short hair was an increase in the technology used by ladies’ hairdressers. Permanent waving machines were first manufactured during World War One and gradually became an essential item in salons. The weekly ‘shampoo and set’, with a ‘perm’ at less frequent intervals, became the norm for many New Zealand women:

> There were very few idle moments as a young apprentice. People spent more on their hair, you talk about the blue rinse brigade, we had regulars, you know, six and seven regulars every single day. That was a full set, and every three months it was a perm, cuts every six weeks (Interview with hairdresser).

The institution of the salon, and the number of ladies’ hairdressers, reached its peak in the 1960s, as shown in Table 7.1 (Smith, 1998).

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<tr>
<th></th>
<th>1961</th>
<th>1967</th>
<th>1976</th>
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<tbody>
<tr>
<td>Number of ladies’ hairdressers</td>
<td>2842</td>
<td>4434</td>
<td>4030</td>
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As the number of salons increased, the need for an industry voice was recognised, and the Auckland Master Ladies’ Hairdressers’ Association (AMHLA) was established in 1946. The organisation produced the New Zealand Hairdressers’ Journal, and advocated on behalf of ladies’ hairdressers, particularly on the subjects of registration and training. Hairdressing competitions were another post-war development, with the first truly national competitions occurring in 1965 (Smith, 1998).

Societal changes in the 1960s again translated to new hair fashions. The straight, geometric hairstyles of Vidal Sassoon depended upon excellent cutting skills, rather than artificial waving, thus ‘liberating’ women from the time they spent having their hair set at the hairdressers (Smith, 1998). The liberation was short lived, however, as the ethos of consumerism took hold and media images became ‘must-haves’ for many New Zealand
women (and, more recently, men). Many people (of a certain age) will not forget the ‘Farrah’ flick, or, as the twentieth century ended, the ubiquitous cloning of the ‘Friends’ look.

Ladies’ hairdressing: Profession, trade or service?
The status of ladies’ hairdressing has always been problematic. On one hand, the fact that it is predominantly a women’s occupation, and is associated with the ephemeral world of fashion, means that the industry often struggles for credibility. On the other hand, many hairdressers would argue vehemently that they are skilled professionals, working with complex and often potentially dangerous technology. They would also argue that their interpersonal skills are as valuable as their technological know-how, and conclude with the point that many of them are also accomplished business people:

[Hairdressing is a profession], in lots of ways, and becoming more so, because our public are being charged more, therefore, they want the service and they want it good. You know, you think about anybody that goes in, we’ve got people’s egos all bundled up, sitting right there in front of us; if you stuff that up, you pay big-time, because someone that’s not happy doesn’t come back to you and tell you, they tell everybody else instead...we’re like the three wise monkeys, you hear a hell of a lot, you see a hell of a lot, and very little of it goes very much further, because it’s yet again, confidentiality - our clients deserve better than that... (Interview with hairdresser).

Smith (1998) traced the campaigns of ladies’ hairdressers for both an apprenticeship system and for registration, arguing that there were different, if interconnected, reasons for each attempt. Apprenticeship was linked with the skilled trades and registration with the formal knowledge linked with professionalisation: “Ladies’ hairdressers made a bid in both areas, the trades and the professions, to increase their status and to get their work recognised as skilled” (Smith, 1998, p.145).

Registration
The first attempt for registration was made during the 1930s. This was a joint campaign run by ladies’ and gentlemen’s hairdressers, and was set in the context of hairdressing as a health issue. The First Labour Government, in setting up its ‘cradle-to grave’ social security system, licensed many health occupations. Hairdressers had established trichology, the science of hairdressing, and “continually emphasised the scientific and technical nature of
their work”, competing with the medical profession for ownership of the science of the hair and scalp (Smith, 1998, p.152).

The campaign for registration, however, was unsuccessful, largely due to disension among hairdressers. Ladies’ and gentlemen’s’ hairdressers had essentially different views of themselves, with the majority of barbers seeing themselves as tradesmen, rather than professionals. Ladies’ hairdressers also realised quickly that, although registration may have enhanced their status, government control could have lessened their entrepreneurial freedom. The other source of disunity was the competitive nature of the hairdressing business. Thus, the opportunity passed, and after the 1930s the government looked less favourably on creating monopolies in industry through registration (Smith, 1998).

The post-war formation of the Auckland Master Ladies’ Hairdressers’ Association (AMLHA) heralded a new push for registration. The aim was for stable wages and high standards, considered under threat because of a flood of inexperienced hairdressers trained in private schools, price-cutting and untrained hairdressers. The need for a national effort on these matters was recognised with a conference in 1949, where a New Zealand Council of Ladies’ Hairdressers was mooted. This was eventually formed in 1954, and the Council began moves toward registration legislation, beginning with an advertising campaign. Unfortunately, lack of interest from the majority of hairdressers and sectional disputes undermined the campaign and the Council was wound up in 1957 (Smith, 1998).

The Council was re-established in 1964 and again attempted to introduce registration: “registration was connected with keeping out untrained hairdressers, preventing competition and transforming hairdressing from a trade to a profession” (Smith, 1998, p.195). The Council met with the Minister of Labour in 1966 to request that hairdressers belonging to the Council be registered, but this was refused. Registration remains an issue today, as anybody can open a salon, or practice as a hairdresser. If a salon operator wishes to train an apprentice, however, there is a Hairdressing Industry Training Organisation (HITO) requirement that they be qualified:

The disadvantage that we have is that, because there is no registration in NZ, anyone can start hairdressing tomorrow – you could open a salon, and do what you like, and there’s nothing to stop that. The only boundaries, or checks and balances that we have in the industry, are that if you are going to
train an apprentice, you must be qualified, or if you’re going to be a tutor or industry assessor you must be qualified, but you can just open a salon and go for it (Interview with hairdressing ITO official).

Apprenticeship

Alongside the unsuccessful push for registration was recognition of the need for a more formalised training system. Prior to the 1923 Apprenticeship Act the only formal apprenticeship provision covering women was in the Auckland (ten-miles radius) Hairdressers’ Employees Award, which applied apprenticeship conditions to women as well as men. The 1923 Act excluded women unless a specific Arbitration Court order was made. This occurred in hairdressing in 1926, when the Court included women in an Apprenticeship Order in recognition of the technological developments in the trade. There were also some regional provisions made for women, and some awards had provision for ‘learners’. Learners were paid slightly more than apprentices, and had a shorter training period (Smith, 1998).

Despite the legal recognition, Smith (1998) argued that there was little evidence of women serving official apprenticeships. The most common form of training was the payment of a premium to a hairdresser, in return for being taught the trade. This system was open to abuse, and in the mid 1930s a scandal erupted, as it was revealed that some women were paying high premiums to hairdressing salons, yet were often taught inadequately, and were sometimes even working on clients without being paid. The first Labour Government addressed this problem in 1936, amending the 1921 Shops and Offices Act to extend the outlawing of the payment of premiums by shop assistants to those in training (Smith, 1998).

The scandal also resulted in closer attention being paid to hairdressing schools, another form of training. After 1936 these schools had to be registered with the Department of Labour, and meet certain requirements. While the number of schools was never large, under fifteen throughout the country for most of the period through to 1960, there was a variation in the quality of training offered. Established hairdressers were also concerned that the

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89 1926 Christchurch (four-miles radius) Hairdressers' and Tobacconists' Assistants Award; 1937 Northern Industrial District (except Gisborne Judicial District) Hairdressers' Assistants Award; 1938 Wellington Industrial District Ladies' Hairdressers' Assistants Award (Smith, 1998).
schools 'flooded' the market with inexperienced graduates: “Girls who could not get a job after their tuition therefore opened their own salons and charged cut rate prices” (Smith, 1998, p.223). Another concern was the treatment of some salon ‘juniors’, young girls who were treated as dogs bodies, with little prospect of training or advancement.

Thus, there were periodically calls for a formal apprenticeship system to be established for ladies’ hairdressing. The 1945 Commission of Inquiry into Apprenticeship and Related Matters recommended the removal of the clause in the 1923 Act that excluded women, but it was retained in the 1948 Apprentices Act. The Auckland Master Ladies’ Hairdressers’ Association agitated for apprenticeship legislation through the early 1950s, but was stymied by a general lack of interest from ladies’ hairdressers, and the opposition of some gentlemen’s hairdressers. By the mid-1960s, however, several factors combined to change the nature of hairdressing training, culminating in an apprenticeship order for the industry in 1967 (Smith, 1998).

First, the report of the 1965 Commission of Inquiry into Vocational Training had included a small section on women and girls. The focus of the submissions received by the Commission on the subject was the need to train or retrain women re-entering the workforce. The Commission thought that it was “probably necessary” to counter the “old-fashioned” idea that it was a waste of time to educate or train women, as they recognised that women were increasingly returning to work after having children, and that women trainees “in general become productive, that is, they earn their keep, quite early in their careers” (Commission of Inquiry into Vocational Training, 1965, p.53). It was even acknowledged that there might be a place for girls in the traditional male trades, with a tentative suggestion for more girl apprentices. Ladies’ hairdressing was singled out as an “area where training was desirable, but was currently of a low standard and poorly controlled” (Smith, 1998, p.233).

The second factor contributing to changes in training for ladies’ hairdressing was the establishment of Polytechnic institutions, which provided the space and facilities for

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90 The Central Institute of Technology in Petone and the Auckland Technical Institute were established in 1960; Wellington Polytechnic in 1963; Christchurch Polytechnic in 1965; and the Otago Polytechnic in 1966 (Smith, 1998). These were not new institutions but renamed Technical Institutes.
training, coupled with an increased interest in the theoretical side of hairdressing. Formal training schemes were established in Wellington in 1965, and in the Waikato in 1967, precursors to the apprenticeship model. The third factor suggested by Smith (1998, p.234) was the “growing public awareness of the lack of standardised, formal qualifications in hairdressing”.

Thus, in December 1967 the New Zealand Ladies’ Hairdressing Apprenticeship Order was made by the Arbitration Court. The order applied to both women and men who worked in ladies’ salons. The apprenticeship period was 9000 hours, with reductions for a Trade Certificate pass, or for time spent at a hairdressing school. Formal classes began in polytechnics, generally conducted on a day-release basis, with yearly examinations. Figure 7.1 shows the numbers of new apprentice contracts, and of contracts in force, from 1968 to 1983. Of interest is the slight dip in numbers after 1972, attributed to the influence of the equal pay legislation (Department of Labour, 1984-1993).

Figure 7.1: Ladies’ hairdressing apprenticeship contracts, 1968-1983 (Department of Labour, 1984-1993)
Despite a raft of ‘positive action’ initiatives throughout the late 1970s and 1980s, hairdressing remained the predominant female apprenticeship industry, as shown in Table 7.2. The *Apprenticeship Act 1983*, although an essentially conservative measure, incorporated growing social awareness of the systemic disadvantage that women faced in the labour market. The Act charged local apprenticeship committees with promoting apprenticeship to under-represented groups (*New Zealand Statutes*, 1983, p.219). This was reinforced in 1984 by the introduction of the Female Apprentice Incentive for Recruitment (FAIR) scheme, where employers of female apprentices, other than those in the hairdressing trade, would receive a $20 per week subsidy during the first year of training (Catherwood, 1985). The reason behind these initiatives was the ‘tiny’ percentage of women apprentices, reflecting the concentration of women into narrow occupational groupings.  

Table 7.2: Females as a percentage of apprentices in the private sector, 1984-1993  
(Department of Labour, 1984-1993)  

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of female apprentices (contracts in force)</td>
<td>9.2%</td>
<td>10.3%</td>
<td>10.8%</td>
<td>11.8%</td>
<td>14.1%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Percentage of female apprentices (excluding women's hairdressing)</td>
<td>2.3%</td>
<td>2.9%</td>
<td>3.3%</td>
<td>3.4%</td>
<td>3.8%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Percentage of female apprentices in women's hairdressing</td>
<td>77.3%</td>
<td>73.8%</td>
<td>71.7%</td>
<td>73.5%</td>
<td>75.7%</td>
<td>83.6%</td>
</tr>
</tbody>
</table>

91 At the 1981 census, over half of all full-time employed women worked in seven occupational groups: clerical workers (15.4 per cent); sales assistants (7.75 per cent); typists (7.5 per cent); bookkeepers/cashiers (7 per cent); health workers (7 per cent); teachers (6.6 per cent) and clothing workers (4 per cent) (Horsfield, 1988, p.279).
7.2 The current environment

Overview

This section is informed by five interviews that were carried out in 2002 (see pp.122-123 for further details). There are approximately 2600 hairdressing salons in New Zealand and around 350 in Christchurch (Simpson, 2004). While the profile of the hairdressing industry may be dominated by the larger salons, over sixty per cent of salons have only one or two employees. As discussed in the introduction to this section, this has ramifications for training:

A lot of them are little suburban salons, you know, they just don’t have the resources, basically, to pay to have an additional staff member, and then we’ll get other ones that just don’t believe in apprenticeship, don’t believe in the qualification, which is really sad (Interview with regional hairdressing ITO official).

While the direct cost of employing an apprentice discourages some from training, there are wider factors that also constrain the ability to train, such as compliance costs and employment relations issues:

There’s issues around, ‘Do people want to keep employing?’. The Employment Relations Act, that’s made big issues, for small business owners; a) learning about what the heck that means and b) what do we do when we’ve got someone that... and there are salons that have had to pay people out, that’s a downer for a small business... that can be enough for someone to stay in business or not, particularly when the amount of balance at the end of the day is not always that great (Interview with hairdressing ITO official).

While shortages of qualified hairdressers were noted, skill shortages in general appeared to be less of an issue in the case of hairdressing than with the other case studies. Two reasons were suggested for this. First, it is possible (and reasonably common) to practice hairdressing without having obtained the full qualification:

I mean you could go and open up a salon tomorrow, you could do that, and nobody could stop you... It’s a big job, trying to encourage people to complete... Some people start and don’t finish, they don’t see a point in finishing, because most employers, unfortunately, when they’re advertising for qualified staff or for senior staff, they don’t necessarily want to see that bit of paper. They just want to see that they’re going to bring in some clientele (Interview with regional hairdressing ITO official).
Second, there are several full-time training providers in the Canterbury region, ensuring a steady supply of ‘graduate’ hairdressers. This is discussed in greater detail later in this chapter.

Industry Demographics

The profile of the hairdressing industry remains essentially young and female. At the 2001 census, there were 8445 hairdressers, of whom 87.2 per cent (7368) were women and 47.3 per cent (3993) were aged under 30 years old. While the concentration of women in the industry has changed little from 1991, when 85.9 per cent (6381) of the 7425 hairdressers were women, a similar trend to that noted in the previous case studies, that is, the ‘ageing’ of the workforce, is also noticeable amongst hairdressers, as shown in Table 7.3 (Statistics New Zealand, 2003a). The increase in the number of hairdressing training providers, whose clientele would be counted in the census as ‘students’ rather than ‘hairdressers’, may help account for some of the decrease in the proportion of those aged under 25 years.

Table 7.3: Changes in age composition of hairdressers, 1991-2001 (Statistics New Zealand, 2003a)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Hairdressers</td>
<td>7425</td>
<td>7662</td>
<td>8445</td>
</tr>
<tr>
<td>Total Male</td>
<td>1044</td>
<td>1050</td>
<td>1077</td>
</tr>
<tr>
<td>% aged under 25</td>
<td>48.9%</td>
<td>38.8%</td>
<td>31.6%</td>
</tr>
<tr>
<td>% aged 50 and over</td>
<td>5.4%</td>
<td>8.2%</td>
<td>13.7%</td>
</tr>
</tbody>
</table>

Apprentice Demographics

According to statistics provided by the Hairdressing Industry Training Organisation, there were 1420 hairdressing apprentices as at November 2001. Of these, 92.7 per cent (1317) were women and 12.4 per cent (176) were aged 25 years and over. Table 7.4 shows hairdressing apprentices by ethnicity and region. Just over 11 per cent of apprentices identified as Maori and 2.2 per cent as Pacific peoples. The proportionately low numbers of Maori and Pacific peoples (Maori comprised 14.7 per cent and Pacific peoples 6.5 per cent
of the population at the 2001 census) had been noted by HITO in 1998 (Skill New Zealand, 1998b).

Table 7.4: Hairdressing apprentices by region and ethnicity, November 2001 (Hairdressing Industry Training Organisation, 2001b)

<table>
<thead>
<tr>
<th>Region</th>
<th>European /Pakeha</th>
<th>Maori</th>
<th>Pacific peoples</th>
<th>Other/not stated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Auckland</td>
<td>94</td>
<td>14</td>
<td>4</td>
<td>4</td>
<td>116</td>
</tr>
<tr>
<td>Auckland</td>
<td>192</td>
<td>22</td>
<td>17</td>
<td>29</td>
<td>260</td>
</tr>
<tr>
<td>Waikato</td>
<td>169</td>
<td>29</td>
<td>4</td>
<td>12</td>
<td>214</td>
</tr>
<tr>
<td>Central</td>
<td>352</td>
<td>61</td>
<td>5</td>
<td>35</td>
<td>453</td>
</tr>
<tr>
<td>Canterbury/Westland</td>
<td>176</td>
<td>20</td>
<td>-</td>
<td>18</td>
<td>214</td>
</tr>
<tr>
<td>Southern</td>
<td>132</td>
<td>12</td>
<td>1</td>
<td>18</td>
<td>163</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1115</strong></td>
<td><strong>158</strong></td>
<td><strong>31</strong></td>
<td><strong>116</strong></td>
<td><strong>1420</strong></td>
</tr>
</tbody>
</table>

(78.5%) (11.1%) (2.2%) (8.2%)

Training regime

Recruitment

Many apprentices are recruited from young people who have done part-time work or work experience at a salon. There is an expectation that apprentices will have at least three years secondary education (Hairdressing Industry Training Organisation, 2000a). Some of the larger salons have their own training schools and recruit directly. A pool of graduates is also available from courses run by the various training providers but, as they presumably have already completed the majority of the qualification, it is not clear how many are taken on as ‘apprentices’. There is also the suggestion of some resistance to graduates:

"[In one region this year there was] a large number of first year apprentices, which suggests that the employers are not taking on people that have already gone through a course and already gained some unit standards; they want someone, they come in at ‘baby’ stage. So that was just discussed a month"

92 Usually, assessment of these apprentices is still carried out at a registered training provider under the auspices of HITO. Some salons, however, will train to their own specifications, without ‘hooking up’ trainees to the national qualification (Interview with hairdressing ITO official).
ago, and it will be interesting to see it as it flows, you know, how many people come in at second year [that is, after having done a course], or whether those numbers [of first year apprentices] continue to grow (Interview with hairdressing ITO official).

Organisation
All hairdressing apprentices are employed directly and covered by a training agreement with the Hairdressing Industry Training Organisation (HITO). Each apprentice is mentored by a training co-ordinator provided by that organisation. The apprenticeship lasts for 6000 hours, or approximately three years (Hairdressing Industry Training Organisation, 2000a). The Modern Apprenticeships scheme does not extend to hairdressing, a point which rankles with HITO (see Chapter Four, p.110).

Assessment
Assessment in the hairdressing industry is carried out by registered training providers and is moderated by HITO. The National Certificate in Hairdressing (Hairdressing Practice) is awarded at the completion of 42 unit standards up to Level 4, plus two units at Level 5. Apprentices attend a training provider for off-job training for 18 days in the first year, 20 in the second and 10 in the third year (Hairdressing Industry Training Organisation, 2000b). Assessment is via a 'collection of evidence' model, whereby employers must witness that a particular skill has been completed competently a specific number of times:

One of the bigger things that’s affected our industry was not that change from Trade Certificate to National [Certificate], but when we brought in the ‘collection of evidence’ model. Employers have realised that there was something happening a bit, and I guess it started to make them a bit more answerable, a bit more involved in what was happening. You know, they have to sign off a piece of paper, and they moan about having to do that, but we say, ‘Well, you’ve signed your trainee agreement; you’ve said you’re going to train, well, get involved!’ So that’s put a bit more onus on the relationship... (Interview with hairdressing ITO official).

The final assessment is performed by accredited industry assessors, who must maintain an industry involvement of at least 25 hours per week. The two units assessed sit at Level 5 on the national qualifications framework. One unit involves monitoring the performance of the apprentice in the salon setting. The other, Unit Standard 2757, “is a 7 hour demonstration of your hairdressing skills in a salon environment” (Hairdressing Industry Training
Organisation, 2000b). This is a rigorous examination of skill levels. For example, of the 352 people attempting the unit in 2000, only 179 (51 per cent) passed, and for nearly 25 per cent of those it was their second attempt at the unit (Hairdressing Industry Training Organisation, 2001a). Retention of this ‘practical’ examination was seen as crucial to maintaining standards as the qualification ‘moved over’ to the national qualifications framework:

The reason that we did that [retained the practical examination] is, because we’d come from Trade Certificate era. We had a final assessment, like a big practical assessment, the trade practical, and industry decided they wanted to keep it. For a couple of reasons, I guess, partly because it had been there, and it was like it was retaining some history, but the other thing was, it was a moderation issue as well. The industry didn’t want to have the whole qualification being able to be assessed by just a training provider, and they wanted to have, I guess they wanted to have some control over that (Interview with hairdressing ITO official).

Industry issues

Pay levels

While the level of apprentice wages was of concern to some respondents in the other case studies, the issue of low wages is particularly important in the hairdressing industry, for two reasons. First, as the industry is female-dominated, apprentices have a double exposure to exploitation; they are generally young and female. Indeed, anecdotal tales abound of low pay and of apprenticeships promised but not delivered. Second, for those young people who choose to complete most of their training at a training provider, the low rates of pay once they begin work may make paying back student loans extremely problematic (McNeil, 1999).93

Prior to the Minimum Wage Amendment Act 2002, employers were exempt from paying minimum wages if the worker was receiving training towards a registered qualification. A review of the minimum wage in 2000 “revealed that the use of the loophole was common in hands-on industries such as hairdressing and horticulture” (Walsh, 2001, p.2). In the debate leading up to the passing of the 2002 Act, while hairdressing industry officials agreed that some level of wage protection was needed for apprentices, fear was expressed that setting

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93 The expense involved in training full-time with a provider is discussed in greater detail on p.202.
that level too high would endanger the viability of some businesses ("Hairdressers back wage exemption," 2001).

There is talk that there will be a minimum wage for apprentices...I think $5.40 has been mooted. And in some places that will make things difficult, for some employers, whether they'll take them on or not...other organisations, maybe it won't be an issue. Some people have said, '[Hairdressing] Association members aren't paying anything less than that', but I'm aware of people who aren't. I know of people who are going in at the $4 mark, maybe $150 dollars in their hand [a week], something like that. And it is hard, it's really hard, being an employer, I mean I was an employer. Before this position I had owned my own business for 13 years, and it is hard, the income is not high. The public don't want to start paying what they should be paying. The hourly rate would not be supported. I mean perhaps Wellington and Christchurch may support that more, but smaller centres, rural areas...Someone going in for a cut and blow wave at $20 is certainly not going to be supporting someone if they're going to be on $10 an hour for the apprentice, and $12 or $15 for the senior (Interview with hairdressing ITO official).

This concern was recognised in the 2002 legislation, with the minimum wage rate for people in recognised industry training being set at the minimum youth pay rate (that is, the rate set for those aged 16 to 17 years, which is 80 per cent of the adult minimum wage) (Employment Relations Service, 2004).94

While there clearly is some basis to the perception that hairdressing is not a well-paid industry, the respondents agreed that there is the potential for earning good money. Top stylists, especially those in the main centres, command high incomes:

'It's easier for me, I guess, because I wear the hairdresser's hat, and believe in...it's given me a great...you know, the income that I had from owning my own business was far and beyond the average income, and particularly in the region I was in, and at a early age. People say, 'Well, it's low pay', well I know people in Wellington who are taking home salaries of $50,000, as a hairdresser, well, there's nothing wrong about that, but then I also do know of the people who are starting on $3 an hour and maybe never get past the $10 an hour... (Interview with hairdressing ITO official).

Census data also shows the importance of hairdressing as a route to self-employment and business ownership for women. The rate of employer or self-employed status for women hairdressers has steadily increased, from 30 per cent (1917) at the 1991 census to 34.2 per

94 From 1 April 2004, the minimum wage for those aged 18 or more became $9.00 per hour and the minimum youth rate was $7.20 per hour (Employment Relations Service, 2004).
cent (2262) in 1996. At the 2001 census, 35.9 per cent (2649) of women hairdressers were employers or self-employed (without employees) (Statistics New Zealand, 2003a). This compared with a rate of employer or self-employed status of 13.7 per cent for all employed women aged 15 years and over (Statistics New Zealand, 2003b).

**Status of the hairdressing industry**

Intimately connected with wage levels is the status of the hairdressing trade. As discussed in the historical section (p.187), the perception of the industry has vacillated between that of a profession, a trade or a service, with (presumably) different levels of remuneration expected dependent, upon the category.\(^{95}\)

\[\text{An increase in the minimum wage} \] is also a great opportunity to say to your clients, ‘Look the government has told us we have to do this, so we’re a bit hamstrung, but it’s good that we’re finally being respected for what we do, but the price will have to increase... ’ Apparently, at one stage, hairdressing was the only trade that had ever gone backwards as far as its charge-out rate. They based it on what percentage would be taken up from your weekly wage to have a perm or a colour or whatever, and it would have taken a whole week’s pay, or whatever of the average wage to pay, but now it doesn’t. But I guess it comes from the fact that you’re at the coal face, you provide a service, and then you go to charge out for that service, and you get to know your people quite emotionally, I suppose... So it could be quite good, the minimum wage thing, at least it could say that these people are respected, you’re worth at least this (Interview with hairdressing ITO official).

Despite the fact that the industry has three possible ‘counts’ against it in the status stakes - it is female-dominated; it is part of the fashion industry; and it is increasingly identified as a ‘service’ industry - many hairdressers battle to raise its image:

\[\text{I think too, the focus of being the ditzy hairdresser, the uneducated one who can’t do anything else so you go off and do that, it’s not as much as it was. And you can’t afford for it to be, I mean. There have been issues where people have been severely injured through using products. You can’t afford to have someone who can’t read properly and follow manufacturers’ instructions...} \] (Interview with hairdressing ITO official).

Training is seen as a crucial component of increasing status – a virtuous circle would link training to some form of registration and a concomitant increase in wages: “If you put in a

\(^{95}\) One industry official was extremely put out when I told her that the Statistics Department occupational classification since 1992 included hairdressing in ‘Service and Sales Workers: Other Personal Services Workers’, as opposed to ‘Trades Workers’.
training programme, then all of sudden you’ve got a point of difference, and you can lift your prices and branding” (Hoare, 2003, p.16).

Full-time courses
Hairdressing ‘schools’ have long been of concern to the industry (see p.188). While historically apprenticeship (if not on a formal basis) was the preferred route, forms of full-time study towards a career in hairdressing have been available for many years. Recently, however, the competition with apprenticeships has increased. There are three main reasons for this. First, there has been a growing movement towards privileging tertiary study, as opposed to workplace-based training:

Faced with choosing between an apprenticeship or attending a tertiary course in hairdressing, many people opt for the latter. Tertiary education has a cachet among teachers and parents that apprenticeships can’t match. But tertiary – in this case at least – isn’t always better. It’s all too easy for a student to find themselves at the end of such a course saddled with debt, without a job to go to, and competing with legions of other graduates (Skill New Zealand, 1998b).

Second, changes in 2000 to the government’s funding formula, which gave private training establishments (PTEs) the same EFTS subsidies as tertiary education institutions (TIEs) greatly benefited private training providers, encouraging the expansion of training places (Education Directions Ltd, 2001). Thus, in 2001, there were approximately the same numbers of full-time hairdressing students as there were apprentices:

The meetings that we’ve had with the Ministry of Education recently, we were looking at some statistics, and we didn’t have all of the statistics, but on those figures there were at least 1000 students in full-time training in hairdressing, but we know that there are schools that haven’t put in their statistics, so we were looking at saying there’s probably about 1200 people in fulltime hairdressing courses, whether that’s six months or a year or whatever, but they’re Ministry of Education funded. ... It’s a big number, when you think we’ve also got 1400 or 1500 apprentices out there, with only that number of salons [approximately 2600] (Interview with hairdressing ITO official).

Third, the hairdressing schools or academies have more resources available to market their courses. A perusal of the brochures for such courses reveals an emphasis on creativity and professionalism, with job opportunities suggested in fashion and the media. While, since 1997, the Hairdressing Industry Training Organisation has had a recruitment and marketing
campaign, focusing on ‘earn while you learn’ (Skill New Zealand, 1998b), ITOs have only a limited mandate (or funding) for marketing:

*We need to market ourselves more by going out and visiting schools, and we need to be visiting [careers] expos, those sorts of things. We haven't really had the funding to do that, and of course we can't compete with the likes of full-time training providers who are advertising in the paper every week. We don't get the sort of funding that they seem to be getting* (Interview with regional hairdressing ITO official).

There are two main concerns with such courses, cost and quality. First, the courses are expensive. Table 7.5 (p.202) shows details of the courses offered by the five New Zealand Qualifications Authority accredited providers in the Canterbury region. Course information was ascertained from the most up-to-date advertising material available for each provider. As a comparison, 2004 fees at Canterbury University ranged from $3458 to $4169 (University of Canterbury, 2004). Table 7.5 shows that none of the courses are able to provide the full hairdressing NZQA qualification – at the least, the final assessment must be conducted by industry assessors, as discussed on pp.196-197. All graduates, therefore (assuming they wish to qualify) must find employment before they can complete any remaining unit standards and/or sit the final assessments.

All tertiary students may borrow, via the student loan scheme, as much as is required for fees at a tertiary education provider (that is, universities, polytechnics and some wananga), or up to $6500 if they study at a private training establishments (PTE) (Studylink, 2004). Table 7.6 (p.203) shows that on average, PTE students borrow significantly more for course fees than do students at other institutions. While paying these amounts back may be viable for some courses, hairdressing students: initially pay relatively high fees; are not able to gain a full qualification; may have to enter the workforce as an apprentice in order to complete the qualification; and even if employed as a stylist, are working in an occupation renowned for low pay rates. All these factors seriously compromise the ability of trained hairdressers to pay back a student loan.

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96 As at 19 February 2004 (New Zealand Qualifications Authority, 2004).
Table 7.5: NZQA accredited hairdressing training providers in the Canterbury region, 2004

<table>
<thead>
<tr>
<th>Provider</th>
<th>Qualification</th>
<th>Length of course</th>
<th>Total cost (*)</th>
<th>Comments from course outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy Group (PTE)</td>
<td>Salon Assistant Certificate</td>
<td>24 weeks</td>
<td>Free</td>
<td>For 16 &amp; 17 year olds with no more than 2 School Cert passes or 39 NCEA credits</td>
</tr>
<tr>
<td>Aoraki Polytechnic (Timaru)</td>
<td>Certificate in Hairdressing</td>
<td>27 weeks</td>
<td>$2616</td>
<td>‘Qualification is equivalent to the 1st year of an apprenticeship’</td>
</tr>
<tr>
<td>Avonmore Tertiary Academy (PTE)</td>
<td>Towards’ the National Certificate in Hairdressing Practice Level 4</td>
<td>33 or 35 weeks</td>
<td>$6000 *</td>
<td>‘Students will be required to complete additional units through the apprenticeship system to complete National Certificate’</td>
</tr>
<tr>
<td>Christchurch Polytechnic</td>
<td>CPIT Certificate in Professional Hairdressing</td>
<td>1 or 2 years full-time</td>
<td>$5836 * (Year 1) $1705 (Year 2-Optional)</td>
<td>‘Credits towards National Certificate in Hairdressing Practice’</td>
</tr>
<tr>
<td>Ruben Blades Academy (PTE)</td>
<td>Ruben Blades Associate Diploma</td>
<td>36 weeks</td>
<td>$7224 *</td>
<td>‘Covers all 42 unit standards to Level 4 of National certificate – a perfect base in [sic] which to enter the hairdressing industry’ (Associate Diploma awarded for at least 26 hairdressing units and 8 ‘Core Generics’. ‘Honours’ Diploma awarded to students who gain all 42 units)</td>
</tr>
</tbody>
</table>

By comparison, HITO estimated in 2000 that the costs involved in a hairdressing apprenticeship averaged around $2100, spread over three years (Hairdressing Industry Training Organisation, 2000b). Even allowing for the purchase of equipment and sundries, it is difficult to imagine apprentices spending more than $900 a year towards gaining the qualification and, in comparison to full-time students, all the while they are earning.

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97 Includes equipment and course-related costs.
Table 7.6: Average student loan for fees by provider type, 2000 & 2002

<table>
<thead>
<tr>
<th>Provider type</th>
<th>Average fees loan as at 31/12/02 98</th>
<th>Average fees loan 2000 99</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Education</td>
<td>$2638</td>
<td>$2863</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>$3597</td>
<td>$3552</td>
</tr>
<tr>
<td><strong>Private training establishments</strong></td>
<td><strong>$5159</strong></td>
<td><strong>$5121</strong></td>
</tr>
<tr>
<td>Universities</td>
<td>$3966</td>
<td>$4228</td>
</tr>
<tr>
<td>Wananga</td>
<td>$4702</td>
<td>$4115</td>
</tr>
</tbody>
</table>

The second concern with full-time hairdressing courses is the quality of the training provided. Comments from respondents did not so much question the actual training; rather, they indicated that the 'pressure cooker' nature of the courses and the classroom focus precluded the absorption of the skills required:

*We certainly don't agree with what they're [full-time course providers] doing. At the moment, there's 44 unit standards in the qualification; 42 of them are done at off-job training, and then the last two through us. Some of these training providers are teaching 42 units in 40 weeks...And kids are walking out with 42 units, and it's like, they get into a salon, and then their parents are ringing us, saying, 'I've spent all this money, why is my kid back at the basin?'. You know, it's like, 'Well... they don't really have the salon experience'. And that's probably our biggest issue at the moment, we're competing with this glorified course, where they go and get this so-called Diploma in Hairdressing over a 40-week period, but they're not actually being told that when they come out, they're not qualified...and when they come out of that system, they actually have to get a job in a salon, sign on to an apprenticeship, to finish whatever units they haven't done (Interview with regional hairdressing ITO official).*

Apprentices themselves are also aware of the differences between the workplace-based route and full-time courses:

*I know a lot of girls who are out there, and they're going to Polytech and just doing courses on hairdressing, hoping to come out with, you know, go into a job or something, but you can't...doing full-time courses at Polytech, you can't gain the experience that people are wanting in salons. You know, you need hands-on experience. I feel, myself, that apprenticeships are the only*  

98 (Studylink, 2003).  
99 (Education Directions Ltd, 2001).
way to go, if you want to be a good qualified hairdresser (Interview with hairdressing apprentice).

7.3 Theoretical reflections: The service sector

One of the defining characteristics of post-Fordism is the growth of the service sector and, as will be seen in Chapter Nine, there is little doubt that this phenomenon has occurred in New Zealand. While in the optimistic version of post-Fordism, service sector jobs, enhanced by technology, may require continual upskilling and reskilling of a generally satisfied workforce, there is only limited evidence of this in New Zealand. The service sector workforce instead tends to be casualised, part-time and low-paid. While pay rates have always been of concern in hairdressing, there is a sense in which the issues seem to have intensified as hairdressing has moved from being regarded as a trade or a profession to being defined as a service. The root of this problem is that often service jobs replace something that was previously, or could still be, done by the individual buying the service. There is thus resistance towards paying any more than is necessary to replace the individual’s labour. When the majority of service workers are also women, it is not surprising that such occupations have difficulty in leveraging their pay rates through scarcity or recognition of training required. Childcare and community support work provide other good examples of this, but it is particularly poignant in the hairdressing industry where there is a history of trade skills and apprenticeship training.

The low rates of pay become especially problematic when the prevalence of training at training providers, rather than via the apprenticeship system, is considered. The burgeoning of the number of private training providers, encouraged by the competitive nature of the education sector, drew a variety of responses from the case study respondents. Some argued that the specialised training and flexible delivery offered by private establishments was essential for their industry. Others felt that the level of investment in public providers was such that they should be fully supported. As seen in the hairdressing industry, full-time courses, including those run by private training establishments, were generally regarded as expensive and of dubious quality.
This range of responses promotes reflection at a theoretical level. The rationale behind the competitive model is that the contractual nature of the relationship with any provider will ensure that educational standards and cost efficiency are maintained. What this ignores, however, is that there are many ‘unofficial’ parties to such contracts, such as students, parents and those in industry, who have different assumptions and expectations of what the nature, quality and extent of the education or training should be.

Summary

In this chapter, I examined skill formation in the hairdressing industry. The apprenticeship model of training continues to serve the industry well, although it is threatened by the increasing prevalence of full-time training options. While the full-time approach is not new, its popularity has been heightened by an increasing societal emphasis on the acquisition of qualifications through institution-based training. Training in the workplace, however, appears to ensure the optimum provision of the wide range of skills that hairdressers require. Hairdressing is a very much a ‘hands-on’ trade, with manual dexterity and skill best acquired by repeated practice in a ‘real’ environment. Hairdressing is also a caring service (the hairdresser as therapist\textsuperscript{100}), with apprentices learning listening skills and discretion, for example, by modelling the behaviour of their seniors. Finally, hairdressing is regarded by many of its participants as a profession, with apprentices socialised during their training into the mores and expected behaviours.

\textsuperscript{100} I thank Alison Kuiper for this phrase.
CHAPTER EIGHT

THE AGRICULTURE INDUSTRY

Agriculture and forestry continue to play a critical part in the New Zealand economy. Attracting, training and retaining the right people will be vital for the primary industries to continue to grow their contribution to New Zealand and its economic revival (Morriss et al., 2001, p.3).

Not only is agriculture the archetypal New Zealand industry, agricultural products\(^{101}\) remain the mainstay of New Zealand’s exports, accounting for (in the year ended 2002) over 60 per cent of total export earnings (Canterbury Development Corporation, 2003, p.7). The shape of the agriculture sector\(^{102}\) in New Zealand can be characterised by three main components. First, its prosperity is largely dependent upon international markets. Second, productivity is comparatively high, fueled by technology and innovation. Finally, many New Zealand farms are small, family enterprises. The sector is also defined by particular labour market and industrial relations issues, which must be understood in an historical context. These factors all have implications for agriculture industry training policies. This chapter thus gives a history of the agricultural sector and its labour market issues, before discussing the current agricultural industry training situation.

Agriculture in New Zealand has changed significantly over the past decade, with less emphasis on sheep-farming and strong growth in dairying and horticulture. While the proportion of workers employed in the primary sector has remained relatively stable over the past five years, at about 8.5 per cent of the employed workforce, there has been a trend towards moderate growth in the number of agriculture and fishery workers, from 146,800 in 1998 to 159,400 in 2003 (Statistics New Zealand, 2004a). This growth mirrors the strength of farm exports: “Export conditions are the main influence on employment trends in the primary sector” (Department of Labour, 2003a, p.1).

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\(^{101}\) Meat, dairy products, fish, fruit and vegetables and other primary products (Canterbury Development Corporation, 2003)

\(^{102}\) This chapter focuses on farming, as opposed to forestry and horticulture. Each of these primary industries also has specific and interesting training issues, which, although beyond the scope of this thesis, are discussed briefly in Chapter Four (p.114) and in the introduction to this section (p.133), respectively.
Although employment growth has been modest, the primary sector has experienced a significant increase in labour productivity over the last 15 years: “real output per worker has increased by a third, from $33,000 in 1988 to $44,000 in 2002, one of the highest increases in labour productivity across the different industries” (Department of Labour, 2003a, p.4).

8.1 History

While the early pattern of farming in New Zealand was dominated (economically, if not numerically) by large-scale pastoralism, the introduction of refrigeration in 1882 changed the nature of the export market. By the 1890s, meat and dairy products joined wool as the staple exports, making smaller-scale family farms viable. The establishment of these farms was encouraged by bush clearance and the acquisition of Maori land in the North Island, and by the gradual breaking up of many of the large estates in the South Island (Martin, 1990). This new model of farming was heavily reliant on the farmers’ labour, and that of their families. In the 1926 census, for example, 60 per cent of farmers reported hiring no labour, and farmers outnumbered rural labourers (Brooking, 1996).

The intensive nature of farming and the imperatives of producing for refrigerated export led to a ready acceptance of mechanisation and scientific and technological advances. Thus, between 1896 and 1926, the percentage of the workforce engaged in the primary sector had dropped from approximately 42 per cent to 30 per cent; “mechanization of farming, which proceeded steadily from the later nineteenth century on, not only substituted capital for labour but also, with help of new scientific procedures, increased productivity” (Brooking, 1996, p.236).

Productivity growth accelerated after 1938, while the percentage of the labour force engaged in agriculture continued to decline. The proportion of the active working population engaged in agriculture has now stabilised at around eight per cent, still one of the highest rates in the OECD (Morriss et al., 2001). The ‘dramatic’ increase in output per employee was the result of ongoing mechanisation, and greatly improved farm management practices, such as fertilisation, and crop and animal husbandry (Hawke, 1996). These
changes required a more skilled work force, and an increasing degree of business acumen on the farmer’s part.

The post-war years were the hey-day of the family farm, with the number of farm holdings rising from 86,239 in 1946 to a peak of 92,395 in 1955. As land prices increased, however, and the size of an economic unit rose, the numbers involved in farming began to decrease, and by 1972 the number of farm holdings had fallen by nearly a third. The composition of the labour force also altered as the number of small farms decreased, so by 1971 farm labourers comprised 41 per cent of the farming labour force (Dunstall, 1996).

The agricultural labour market

Greater reliance on hired labour engendered a vulnerability to shortages in that labour supply. This was not a new issue in New Zealand; the mismatch of the rural labour force with the needs of farmers had been a major theme during New Zealand’s colonisation phase. The situation was volatile, with dire shortages of labour through the 1850s, which continued into the 1860s as agricultural workers flocked to the goldfields. During Vogel’s expansionist phase, the government intensified the ongoing effort to attract “that very desirable class of emigrants, agricultural labourers and country mechanics” (Vogel, 1874; cited in Martin, 1990, p.19). The success of this immigration policy, however, became problematic as the ‘long depression’ that began in 1879 caused a contraction in the rural economy. Wage rates dropped and unemployment increased, exposing the predominantly seasonal nature of much rural work, and increasing the number of itinerant ‘swaggers’ (Martin, 1990).

As the depression ended, and the twentieth century began, the rural economy entered a prosperous period. The nature of the sector had changed dramatically, however, as family farms and mechanisation “undercut the role of rural wage earners...[and] simultaneously diminished the need for seasonal workers and increased local sources of labour” (Martin, 1990, p.197). The development of contracting systems for harvesting and shearing smoothed out seasonal labour demand, contributing to a relatively stable agricultural labour market.
Nevertheless, debate about the extent and nature of labour supply issues has remained a common theme. Concerns expressed at the Agricultural Development Conference, held in 1963, for example, have been echoed in reports and conferences through to the present day.\(^{103}\) Many of the recommendations ensuing from the Conference are also current concerns, such as the need to provide positive publicity about farming to school leavers (see Tipples et al., 2004, p.5 for a recent example). The requirement for responsiveness to international trends and economic fluctuations by New Zealand’s agricultural sector means that labour shortages can often be unpredictable; based upon capricious seasonal, regional or product-specific changes\(^{104}\) (Morriss et al., 2001).

**Industrial relations in the agricultural sector**

The predominance of smaller, family farms may help account for the particular nature of the industrial relations in the agricultural sector. Despite often poor wages and conditions, farm labourers had a generally less adversarial relationship with their employers than workers in the secondary sector. There was some militancy in the early twentieth century, as the Canterbury Agricultural and Pastoral Labourers’ Union applied, in August 1907, to the Court of Arbitration for minimal standards of protection. This was viewed by farmers as a test case to ascertain if farming could be brought under the arbitration system. The Court’s recommendations conceded some of the union’s demands, but refused to grant any award, farming being considered too important to the country to be unionised (Martin, 1990). Industrial matters in agriculture continued to be dealt with separately “because of a perceived need for special arrangements and because of the power of farmer organisations to influence political decisions” (Angove, 1994, p.155). Thus, from 1936 farm workers’ wages and conditions were set by Orders in Council made under the Agricultural Workers Act 1936.

Although some categories of farm workers were union members, over 30,000 stock, station and dairy farm workers had little or no statutory protection. An attempt was made in 1973,
via the *Agricultural Workers Amendment Bill*, to give these workers union representation under the New Zealand Workers’ Union. The resultant outcry from farm workers, however, resulted in the formation of the Farm Workers Association (FWA):

Farm worker antagonism to the threat of blanket union coverage was based on the perception of a shared community of interests with farmers, and a negative attitude to unions that had been hardened over time...Even though redress of wages and conditions was needed, it was widely believed that union activity would destroy the special relationship between worker and boss and damage prospects of upward social mobility through land ownership (Angove, 1994, p.157).

The FWA avoided the taint of unionism by being voluntary and non-militant. The organisation achieved some successes through the mid to late-1970s, including encouraging training. The FWA advocated a career structure in agriculture and had representation on the Telford Training Board, the Agricultural Training Council and at Lincoln College. However, the organisation was never well supported by the bulk of farm workers, many of whom were ‘free-riders’ under voluntary membership. Given that the catchment of members was characterised as “mobile, dispersed, conservative and influenced by the attitudes of employers [and] ambivalent in their own attitudes because of their self-perception as future farmers” it is hardly surprising that the FWA eventually disintegrated in the mid-1980s (Angove, 1994, p.169).

**Industry training in agriculture**

Clearly, then, the agricultural labour market has several significant characteristics that have implications for the way in which industry training is organised. Farmers’ attitudes to training, and the response of the formal education sector, have also been the subject of debate:

Agricultural education over the past century has been characterised by a general reluctance on the part of farmers to train in any formal sense of the word, and by the apparent failure of agricultural training institutions to communicate effectively with farmers who have learnt farming by farming (Moore, 1990, p.23).

While agricultural degrees were available at Lincoln College (established in 1878) and Massey University (established in 1927), trade courses in farming were not offered until the formation in the late 1940s of the New Zealand Technical Correspondence Institute (Moore, 1990; Morriss et al., 2001). Pressure for some form of farm cadet scheme mounted
throughout the 1950s and early 1960s and the first Farm Cadet Scheme annual conference was held in 1966 (Morriss et al., 2001). The scheme was run by Federated Farmers, with funding from the Ministry of Agriculture and Fisheries (MAF), and cadets studied for trade certification while completing a minimum of three years practical farming.\textsuperscript{105} There were 1600 farm cadets in 1985, but this number had dropped to just over 1000 by 1988, representing only approximately one per cent of the farming workforce (Moore, 1990).

Despite fluctuations in industry involvement with the cadet scheme, depending on economic cycles, the cadetship model enjoyed strong industry support, with a Horticultural Cadet Scheme established in 1976, an Equine scheme in 1982 and a Pork scheme in 1985 (Robertson, 1990; Morriss et al., 2001; Riddell, 1992). These were collectively known as the Primary Industry Cadet Schemes (PICS).\textsuperscript{106} Riddell (1992, p.17) argued that “farmers prefer[ed] cadets to young people trained in most of the institutions”, and spoke of the importance of the ‘investment in kind’ from industry, in the form of voluntary administrators and farm trainers.

Farm training institutes were mooted in 1958 by the Consultative Committee on Agricultural Education. Two of these were established at Telford and Flock House, providing one-year practical and academic course for school leavers. Another institute, Taratahi, had been set up in 1919 as a training farm for men returning from the First World War. In the early 1950s, the focus of this institute moved to training young people aged 16 to 20 years (Taratahi Agricultural Training Centre, 2004). From 1974, the training institutes also ran block courses for those entering farming via the Land Settlement Scheme farm ballots. Once this scheme was scrapped in 1984, however, numbers in training at the institutes dropped dramatically,\textsuperscript{107} compounded by the fee increase engendered by the ‘full cost recovery’ required (Moore, 1990).

Morriss et al. (2001) set out the recent history of primary industry education and training, highlighting five distinctive eras. The Agriculture Development Conference of 1963 marked the beginning of the first era, that of agricultural production, during which the main

\textsuperscript{105} Trade Certificate in farming was introduced in 1971, with Advanced Trade Certificate following in 1974 (Morriss et al., 2001).

\textsuperscript{106} Forestry and Fishing cadet schemes were established during 1991.

\textsuperscript{107} The training of young people at Flock House stopped in 1987 (Robertson, 1990).
focus of agriculture, and of agricultural training, was maximising production, mainly for export to Britain. The 1970 *Training in Agriculture* conference recommended the formation of an Agricultural Training Council (ATC), which was duly established in 1971. One of the main contributions of the ATC was the production of training guides for farm tasks, which allowed some examinations to be replaced with internal assessment, a precursor of competency-based training (Moore, 1990). This ‘production’ era ended when Britain joined the European Economic Community in 1972.

The need to find new markets heralded the next era, the ‘marketing’ era. No longer was it sufficient merely to learn to produce a commodity; business and marketing skills also became essential. The agriculture industry was still heavily subsidised, with government-supported agricultural extension, education and training services. In the early 1980s, the Prime Minister, Rob Muldoon had looked to the farming industry to salvage an economy under siege. Billions of dollars, acquired through overseas borrowing, were poured into the pastoral industry; directly, through subsidies and indirectly, through an overvalued exchange rate (Jesson, 1987). During this era, the Ministry of Agriculture and Fisheries was responsible for vocational level training through the primary industry cadet scheme and farm training institutions. The *Cameron Report* of 1984/1985 indicated that “Government was looked to as the provider of funds and significant leadership in Agricultural Training” (Riddell, 1992, p.1).

Government subsidy, however, became an anathema after the election of the Fourth Labour Government in 1984. This era is characterised as the ‘cold-turkey’ era, as farmers bore the brunt of the reform process (Morriss et al., 2001). Agricultural subsidies were removed wholesale in 1985 and government funding for the Agricultural Training Council was also reduced (Moore, 1990; Morriss et al., 2001). In light of this, Federated Farmers, after much debate, removed its financial support from the Council in March 1986, believing that it “could operate agricultural training more efficiently than the current system” ("The mood of farming: state of shock!", 1986, p.5). The Agricultural Training Council was disbanded later that year (Moore, 1990).

As the ‘user pays’ mantra took hold, “MAF services became less of a responsibility for Government to provide, and more of a responsibility for the industry to buy” (Riddell,
1992, p.7). At the same time, vocational training in general came to be seen as much more an education matter than a labour market issue (Murray, 2001). In agricultural training, this meant that the responsibility for both the farm training institutes and the primary industry cadet scheme was transferred to the Ministry of Education. There was a rapid expansion of polytechnic-based agricultural training, despite the relative cost-effectiveness of the industry-based schemes (Riddell, 1992).

The years 1989 to 1999 are described as the ‘free market’ era, in light of the increasing role for market forces in determining education and training outcomes (Morriss et al., 2001). The competitive model encouraged a proliferation of agricultural courses, which were offered at many dispersed sites, with little co-ordination between parent polytechnics (Riddell, 1992). The expansion was short-lived, however, as industry reverses in the mid 1990s saw training reduced and in some cases no longer offered at all. Private training establishments (PTEs), often staffed by former polytechnic tutors, moved to take up the slack (Morriss et al., 2001).

Industry-based training continued under the primary industry cadet scheme. Despite the government’s preference for polytechnic-based training, support remained relatively stable for the cadet scheme (see Table 8.1, p.214). The scheme, along with other industry training, came under the umbrella of the Education and Training Support Agency (ETSA). Riddell (1992) argued that the equity in funding and policy offered as the rationale for the transfer to ETSA had not occurred and that the future of the primary industry cadet scheme was dependent on increased industry funding. Increasing the contribution industry made to training was one of the main drivers of the National Government’s Industry Training Strategy, enacted in part via the Industry Training Act 1992. The agricultural sector was cautious, however:

An impediment to increased Industry contributions to funding its own organisations is their suspicion of Government’s longer term intentions. They fear that any increased funding will be matched by a decline in the

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108 In 1992, for example, the primary industry cadet scheme received $714 per trainee per year, while the EFTS funding for a polytechnic student was $9700. In total, the primary industry cadet scheme received 2.7 per cent of the government’s agricultural education for 30 per cent of the total students (Riddell, 1992).

109 For example, Christchurch Polytechnic ceased to teach agricultural courses in 1999 (Morriss et al., 2001).
Government share and with no gain in training effectiveness being achieved\textsuperscript{10} (Riddell, 1992, p.2).

Table 8.1: Primary industry cadet schemes: Participation and funding, 1983-1992 (Riddell, 1992, p.17)

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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
<td>2086</td>
<td>2447</td>
<td>2534</td>
<td>2513</td>
<td>2049</td>
<td>2036</td>
<td>1889</td>
<td>1883</td>
<td>1965</td>
<td>2030</td>
</tr>
<tr>
<td><strong>Funding (millions)</strong></td>
<td>$1.62</td>
<td>1.23</td>
<td>1.54</td>
<td>1.62</td>
<td>1.35</td>
<td>1.87</td>
<td>1.20</td>
<td>1.13</td>
<td>2.54</td>
<td>1.45</td>
</tr>
<tr>
<td><strong>Funds per cadet</strong></td>
<td>$495</td>
<td>502</td>
<td>606</td>
<td>642</td>
<td>658</td>
<td>917</td>
<td>636</td>
<td>595</td>
<td>1293</td>
<td>714</td>
</tr>
</tbody>
</table>

Nevertheless, the industry embraced the new strategy, with the farming and pork industries forming the Farm Education and Training Association of New Zealand (FETA) in the early 1990s. This organisation was charged with facilitating training for both new entrants and existing agricultural workers, and evolved into the Agricultural Industry Training Organisation (AgITO) in 1997 (Morriss et al., 2001; Riddell, 1992). The horticultural industry also formed the New Zealand Horticulture Industry Training Organisation (NZHITO) in 1992 (NZHITO, 2002).

The current era, which began with the election of the Labour/Alliance Coalition Government in 1999, is characterised by Morriss et al. (2001) as the ‘knowledge economy’ era. The intellectual capital of the country is seen as the driving force behind competitiveness and growth. ‘Marketing’ has been replaced by an emphasis on quality assurance and supply-chain management. Increasingly, large supermarket chains are the export focus, with requirements for niche products and extensive trace-back systems: “to meet these requirements the standards of agricultural education, training and development

\textsuperscript{10} Fears of withdrawal of government funding have proved largely groundless, with 66 per cent of the AgITO’s 1999 income coming from government grants, and only 20 per cent from industry grants (Agriculture Industry Training Organisation, 2000). The figures were similar for 2000 (Agriculture Industry Training Organisation, 2001).
will inevitably have to rise in the new millennium” (Morriss et al., 2001, p.7). Indeed, in 2003 there were nearly 10,000 trainees participating in some form of agriculture or horticulture education or training, as shown in Table 8.2.

Table 8.2: Tertiary Education Commission funded training places for agriculture and horticulture, 2003 (Department of Labour, 2003a)

<table>
<thead>
<tr>
<th>Type of Training</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Industry Training (as at Sept 2003)</td>
<td>7081</td>
</tr>
<tr>
<td>Modern Apprenticeship (as at Sept 2003)</td>
<td>757</td>
</tr>
<tr>
<td>Training Opportunities (contracted for the 2003 calendar year)</td>
<td>199</td>
</tr>
<tr>
<td>Youth Training (contracted for the 2003 calendar year)</td>
<td>209</td>
</tr>
<tr>
<td>EFTS (as at 30 April 2003)</td>
<td>~1719</td>
</tr>
</tbody>
</table>

8.2 The current environment

Overview

The primary sector is of vital importance to the Canterbury region, with agricultural goods contributing over half of the region’s total exports. The trend towards diversification identified in New Zealand agriculture has also been noted in Canterbury, with increased irrigation allowing more intensive farming, such as horticulture, viticulture and, in particular, dairying (Canterbury Development Corporation, 2003). The size of the dairy industry in the region increased approximately ten-fold from 1993 to 2002, as high export prices led many sheep and beef farmers to convert to dairying (Career Services, 2002). The region is notable for above-average herd sizes; 600 cows compared to the national average of 300 (Department of Labour, 2003a).

The field work for this case study focused on the Canterbury dairy industry. Interviews were carried out in 2002 and 2003, and various initiatives focusing on labour issues related to dairying were monitored over the same period. The dairy industry encapsulates many of the issues that impact on industry training in agriculture as a whole. While conditions for
dairy farm workers have improved “vastly” over the past decade, it remains a mobile workforce, with shortages of skilled labour (Department of Labour, 2003a, p.8). The labour intensive nature of dairying, coupled with increasing farm sizes, has meant that the family-based farm is often no longer viable; “...employing staff has become a fact of life for dairy farmers” (Verwoerd & Tipples, 2004). Employment relations, within which training is set, have been somewhat problematic in dairying, and industry training may have a wider role to play than merely the acquisition of specific farm-related skills.

Training regime

Recruitment

As training in agriculture has developed from the farm cadet scheme, trainees are not defined as apprentices as such. Since the inception of Modern Apprenticeships, however, a number of industry trainees have moved onto this scheme. The Agricultural Industry Training Organisation (AgITO) has a pro-active role in recruiting trainees and apprentices: “our role is to go out on the farms and find people who are already in employment, and encourage them into training” (Interview with AgITO training advisor). There are also four pre-employment training groups in the region: the National Trade Academy; the Rangiora Academy, attached to Rangiora High School, Hurunui Academy attached to Amuri Area School; and a course run by Agriculture New Zealand (AgNZ).[111]

Organisation

AgITO trainees begin with an entry-level Level 2 course, the National Certificate in Agriculture: Introductory Farming Skills. This is a generic farming course, with an emphasis on basic farm skills and safety, and usually takes one year to complete. Some of the Level 2 course may have been delivered by a pre-employment training provider. Trainees may then move onto the Level 3 and 4 courses, where they are able to choose a specialist farming option. The Level 4 qualification requires around three years of part-time study. It is at this point that some trainees are identified as potential Modern Apprentices and offered the opportunity to move onto that scheme. As discussed in Chapter 4 (p.106), the funding tied to Modern Apprentices obligates the training co-ordinator to carry out four

[111] AgNZ is a subsidiary of Wrightson (a major agriculture business). It was formed when, after more than 100 years, the farm and horticultural advisory services of the Ministry of Agriculture and Fisheries ended. AgNZ had three strands: marketing and business consulting; on-farm consultancy; and the training group, which is a NZQA accredited private training provider (AgNZ, 2001).
visits to the apprentice per year. The distances involved and lack of ITO funding, however, precludes such close attention being given to ordinary AgITO trainees:

*It’s not too dissimilar to what the AgITO is doing already, we’re training advisors, we’re out visiting our trainees anyway, and (in theory) we visit our trainees twice a year. That’s regardless of the apprenticeship scheme, and so they already were getting that contact with us. But the apprenticeship scheme... puts it into a tighter framework... Physically it wouldn’t be possible [to have all trainees as Modern Apprentices] because of the extra work required to maintain a Modern Apprentice, like four visits a year... We’re struggling to, my region we’re struggling to do one visit, not for the Modern Apprentices, for the people who are non-apprentices. Like I certainly get my Modern Apprenticeship visits done, but for the non-Modern Apprentices, I’d be struggling to get one visit done a year, and, as you increase the number of Modern Apprentices, for a training adviser, their work increases... But there is a ceiling though, you couldn’t have all Level 4 [trainees] doing it, unless you put more labour on the ground, and that’s potentially possible I suppose (Interview with regional agriculture ITO official).*

The isolation of many trainees is not the only distinctive feature of training in the agricultural sector. Dairying, in particular, has high rates of both internal migration and staff turn-over (Tipples, Wilson & Edkins, 2004). This movement traditionally occurs on ‘Gypsy Day’ (1 June), which marks the beginning of a six-to-eight week period (on factory-supply farms) when cows are not milked and calving occurs. It is on this day that farmers, sharemilkers, workers and herds may shift farms (Tipples & Lucock, 2004).

Clearly, the reality of such a mobile workforce has ramifications for the both the motivation to train, as the farmer may be unable to capture directly the benefit of the training investment, and the organisation of the training:

*Yeah, they do move around a lot... I’ve got around 25 to 30 per cent of my trainees moved this quarter. Yes, so I terminate (nasty term) them when they leave my area... There is a large movement of trainees between regions, and probably 30 per cent is getting on the high side. I have heard farmers say that it’s healthy that there is some movement, they all agree they don’t want too much movement, but some movement is good, because some of that is employees going on to better things, going up the ladder and becoming more skilled, and they want to take on herd manager’s positions so they move to do that because they can’t do it with the existing farm they’re on. Also a couple or two years on a farm, it’s good to get a new employer and get fresh ideas and a different way of doing things (Interview with regional agriculture ITO official).*
Assessment

Because of the particular nature of the agriculture industry, the main emphasis of assessment is on-farm assessment. Formalising the assessment of training may prove a challenge for some farmers, requiring good support systems. For example, Verwoerd and Tipples' (2004) study of the staff management practices of 20 Canterbury dairy farmers found that, while the farmers generally enjoyed training, “the pressure of work tended to limit that training to practical, here-and-now tasks with little opportunity for theoretical or wider extension” (Verwoerd & Tipples, 2004, p.34). In recognition of the need for support, when they take on an AgITO trainee or apprentice, farmers are signed up as registered assessors:

A large part of the qualification is practical, and the farmer, we sign the farmer up as a registered assessor. So I go through with the farmer what our expectations are, what sort of levels they should be assessing at and they’re issued with a registration number, and they will be able to pass the trainees off for up to half, probably half of their course, 50 per cent of the course being practical (Interview with regional agriculture ITO official).

While this system is generally regarded as working well, moderation is an issue because farmers are in the main working on their own, and are often geographically isolated:

And it’s difficult [assessment] for the farmers, the new ones, and also they’re doing it in isolation, too... The farmer’s on his own, he’s not looking at seeing what other farmers are doing. They don’t see what another farmer’s standard is and so they rely on the guidelines that are written in the book, so our record book has got quite comprehensive guidelines to help the farmer... The training adviser has some role there too, not officially, but we have some role in helping, well we do, initially, when we set the farmer up, it’s our job to teach the farmer, and give the farmer standards, explain the unit standard system, what a Level 2 means, what a Level 4 means, etc. But the ongoing part of it is visiting the farms, visit the trainees on the farm, and sit down with the farmer and the trainee when they’re signing off their record book for their practical skills, and we can say look, the farmer might say, ‘Do you feel as though my staff, this person’s able to do this, this and this, does that correlate well with this unit standard? Am I signing him off correctly?’ And so the training adviser can give that moderation exercise as they go around anyway (Interview with regional agriculture ITO official).

In the Canterbury region, AgITO has recognised the difficulties that may arise with assessment by appointing a ‘roving’ moderator, who will visit each contracted farm and advise the farmer on assessment.
Off-farm assessment is carried out at classes held approximately once a fortnight in varying locations. These classes provide around 72 hours of tuition a year. In the Canterbury region, which has a predominance of dairy farms, the classes are held between 9.30am and 2.30pm, to cause the least interference to the farming day. AgITO contracts training providers, one of which is Agribusiness Training, to run the courses. This company was formed as the region’s polytechnics closed down their agricultural departments. As well as providing technical tuition and assessment opportunities, the classes also provide social contact for trainees and another contact point for the AgITO training advisor (Observation, AgITO class, 2002).

Industry issues

Recruitment and retention of skilled workers

An over-riding issue for the agriculture industry currently is the recruitment and retention of skilled workers. As discussed in the historical section of this chapter, this is hardly a new phenomenon, yet the current buoyancy of the sector and the increasing demand for higher skilled workers have brought the issue to prominence. The changing nature of the industry has also contributed to the problem of attracting skilled workers. The trend away from family or owner-operated farms to larger, corporate-style businesses has meant that for many people the dream of eventual farm-ownership is no longer attainable. Thus, a recognised career path becomes crucial to providing motivation for those entering the industry ("Agriculture 'unattractive to youth',' 1998). This career progression may be from farm worker to herd manager to farm manager or sharemilker. Sharemilking may be a step towards farm ownership or a career in itself. As land prices rise, however, and farmers' financial commitment to the dairy companies increase, there is a trend towards employing salaried farm managers, rather than sharemilkers.

An 'environmental scan', conducted as part of a pan-industry Human Capability Strategy (launched in February 2003), backgrounded labour and skill issues. Several challenges were identified: the largely urban nature of New Zealand, which divorces many people from any 'agricultural' experience; the perception of the sector as low-skilled; many small-scale, isolated employers; perceptions of low pay and poor conditions; intensification of

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112 Sharemilkers operate a farm on behalf of the farm owner for an agreed share of the farm profits. In 2000/2001 37.3 per cent of New Zealand dairy farms were sharemilked (Verwoerd & Tipples, 2004).
farming practices, requiring improved people management skills; a poor health and safety record; seasonal work; and poor promotion of farming as a career option (Department of Labour, 2003a).

Many of these factors are in evidence in the Canterbury dairy industry, which formed the basis for much of my field work. One interview I conducted with a dairy farmer encapsulated the paradoxes, also identified in the other case studies, surrounding training. The farm, a large dairy conversion milking approximately 670 cows for factory supply, employed four full-time staff who worked on a rotating roster, with three staff on at any one time. While the farmer was happy to have pre-employment trainees from the National Trade Academy for one to two-week work experience placements, the farm had not had an AgITO trainee or apprentice in the previous four or five years. The farmer explained that there was a concern that the trainees would leave the farm or the industry after the (expensive) training was completed and that some aspects of the AgITO support and training were not to her liking. Another major contributor to the reluctance to take on a trainee was the time required to train; as the farm expanded there simply was not enough time to train a less skilled employee. The farmer also felt that ‘soft’ skills, such as attitude, organisational skills and people management skills (clearly perceived by her as not delivered by formal training), were more important than technical skills, especially given the close nature of farm working relationships. (See Chapter Two, p.22, for more on this issue.)

The farm had a high level of staff-turnover (not uncommon, as discussed above), however, and the farmer reported that it was extremely difficult to source staff with the required experience and skills. One response to these difficulties was to use a farm employment agency, Marvin Farm Services, which organises overseas farm labour for short or long-term placements. At the time of the interview, all four of the farm’s staff had come from overseas. This farmer was impressed with the training these employees had received overseas, especially from Britain and Ireland, arguing that they had a better grasp of general farming techniques than their New Zealand counterparts.

113 [www.murvinfarms.co.nz](www.murvinfarms.co.nz)
One point on which the farmer was most emphatic was the need for a change of attitude, especially on the part of secondary schools. It was felt that farming needed to be promoted as a skilled occupation, with a formal career path available. Clearly, this farmer felt that the low status accorded to farming, discussed in greater detail below, was a major contributor to recruitment and retention problems. Yet, paradoxically, the desire to train, recognition of the benefits of training, and a call for formal career progression (presumably reliant on formal qualifications) did not translate to participation in AgITO training by the farm.

**Responses to recruitment and retention issues**

There has been a wide range of responses to labour and skill issues in the agriculture sector. At the government level, as well as the industry training shown in Table 8.1 (p.214), several government departments are involved in a number of initiatives at both national and regional levels “around issues concerning matching labour supply with demand, skill development of employees and growers, and improving employment practices and conditions” (Department of Labour, 2003a, p.2). These include the development of the human capability strategy mentioned on p.219; initiatives focusing on seasonal workers; and health and safety programmes.

There are also industry-level initiatives. For example, the dairy industry ‘industry good’ organisation, Dairy InSight, committed around $2 million of its approximately $36 million 2003/2004 budget to education and training. Of this, over $1 million was used, in collaboration between Dexcel and the AgITO, to “improve the knowledge and skills of people from the dairy industry who enter AgITO training programmes... leverag[ing] government funds using dairy industry investment” (Dairy InSight, 2004c). Similar investment in 2002 meant that over 3000 dairy farm employees (17 per cent of those

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114 It is important to distinguish between the seasonal nature of, for example, dairy farming, where there tends to be an annual movement of workers, and the seasonal needs of growers, where a large number of workers are required for a short time span.

115 Dairy InSight is a funding organisation only; services are provided by organisations such as Dexcel. Dairy InSight is funded by a levy of 3.4 cents per kilogram of milksolids on all New Zealand dairy farmers and sharemilkers (Dairy InSight, 2004a). According to the dairy farmer respondent, this translated to an average yearly payment of around $2700 per farm, but would be nearer $7000 on her farm.

116 Dexcel is the research and extension arm of New Zealand's dairy industry, incorporating the former Dairying Research Corporation and the Consulting Officer Service of Livestock Improvement. Initially set up by the New Zealand Dairy Board, Dexcel is now 100 per cent owned and funded by dairy farmers (Dexcel, 2004).
available) were trained during the year (Dexcel, 2003, p.11). Another nearly $900,000 was granted to Dexcel to:

continue to strengthen the education framework within and available to dairying to meet changing industry and farm business needs and to assist in raising the perception of dairying as the career choice of intelligent people (Dairy InSight, 2004c, p.1 emphasis added).

Dairy InSight also funded a Lincoln University report that aimed “…to evaluate the future employment situation of the New Zealand dairy farming industry” (Tipples et al., 2004, p.1). This report provided a statistical profile of the industry, and inter-census changes to that profile. While acknowledging the initiatives outline above, the report found that:

The dairy industry’s image continues to be unattractive to potential entrants and is resulting in too few people entering the industry. The low levels of qualification of the existing labour force and the problems of retaining the 20-29 age group is depriving the industry of the skill it requires (Tipples et al., 2004, p.95).

There is an increased level of awareness of the need to rectify such image issues and to invest in training at the regional level. For example, in 2000 a group of dairy farmers in North Canterbury banded together to form the Amuri Dairy Employers Group, in response to difficulties in attracting and retaining staff (Edkins, 2002). While such problems were endemic to dairying in Canterbury as a whole, they were particularly severe in the Amuri area, for three reasons. First, dairying was comparatively new to the area, meaning that the Amuri was not well-known for dairy employment. Second, many of the farmers were relatively inexperienced, resulting in some cases in unhappy staff, poor employment relations and high staff turnover. Third, the area is quite isolated, presenting social problems for staff, many of whom are young, single males. Thus, “the entire region developed a bad reputation as somewhere to live and work” (Edkins, 2002, p.225). The response to these issues from the employers’ group was to develop a code of practice, covering such things as hours of work, employment conditions and training. The group also aims to promote the dairy industry as a positive career choice (Mathais, 2002, p.16).

**Status of agriculture**

As with the other case studies, the low status of agricultural work was of great concern:

Agriculture is not, probably never has been, a favourite occupation/profession for capable young people. The unfavourable perceptions of
Many of the perceptions plaguing the engineering, electrical and hairdressing trades have also been cited as reasons for difficulties with recruitment and retention in agriculture: low pay, poor working conditions and a predominance of 'dirty' or manual tasks. Over-riding these commonalities, however, was a feeling that agriculture, in particular, was the epitome of an unfashionable, 'un-sexy' industry. Contributing to this is the broader repudiation of the importance of agriculture to New Zealand. Baragwanath (2003) described this as "(agri)cultural cringe – embarrassment at New Zealand's 'unsophisticated' pastoral heritage" (Baragwanath, 2003a, p.3). Thus, despite the fact that the primary sector is the single largest contributor to New Zealand's export earnings, and the fact that productivity levels in the sector are amongst the best in the world, the government's attempt to insert New Zealand into the global 'knowledge economy' via biotechnology, information technology and the 'creative' industries virtually ignores New Zealand's traditional area of expertise. It is little wonder that this message filters down to many school-leavers to brand agriculture as a 'no-go zone'.

8.3 Theoretical reflections: Knowledge and skill 'down on the farm'

In this chapter, I have examined the particular nature of industry training in agriculture. While it may be a strain to conceptualise agriculture in a narrow 'Fordist' sense, using Jessop's broader scheme proposed in Chapter Two does allow the use of this lens. Thus, the traditional 'mass production' of agricultural goods for the mainly British market was replaced from the mid-1970s by the need to seek out new 'niche' markets, to add a great deal more value to products within New Zealand, and to retain and extend quality and productivity levels. Clearly, these imperatives required a more highly skilled workforce, both on the farm and within the primary processing industries. Yet, the same forces that generated these needs, the pressures for reform that became evident as the Fordist consensus unravelled, also in many ways added to the traditional constraints to formal agricultural training.
As the historical sections of this chapter illustrated, the nature of industrial relations within the agriculture sector, together with a deep suspicion on the part of many farmers about the 'theoretical' (as opposed to the practical or hands-on) and the fact that many farms are small or family-based businesses, have been barriers to formal training. But as farming was exposed to the rigours of international competition without the safety net of guaranteed markets, three factors over time exacerbated both the ability of farmers to offer training and lessened the likelihood of people wishing to take part in that training. First, the removal of subsidies in the mid-1980s severely impacted on agriculture. Many farmers were forced off the land, or into survival mode; training was clearly not a priority in that environment.

Secondly, in the same neo-liberal vein, training itself was exposed to market forces during the 1990s, with the outcomes described earlier (p.201). Finally, although agriculture may have survived the harsh medicine meted out in the 1980s and is now relatively thriving, the latest manifestation of post-Fordism, the 'knowledge society', has only limited tolerance for a (supposedly) old-fashioned, commodity-based industry.

Summary

This chapter has examined skill formation in the agriculture industry. There is a clear enthusiasm for training on many farms and a growing recognition within the industry that good training practices are an important part of the solutions to many of the challenges facing farming. The immediate benefits of training, a better skilled workforce and improved productivity, are obvious, but training may also help with worker retention, play a role in developing surer career paths in the industry, ease the adoption of new technology and assist in raising the image of the industry. Formal training may also encourage a more diverse workforce; not coming themselves from a farming background is less of a barrier if recruits know they will be well-trained and supported. In the long term, as was seen in the previous case studies, an employer who has received formal training is likely to feel obliged to ensure his or her workers are also trained; therefore as formal training becomes more the norm in agriculture, it may become a self-perpetuating ethos.
PART THREE: ANALYSIS AND CONCLUSION

CHAPTER 9

ANALYSIS

In this chapter, I synthesise the themes and issues raised in the case studies, informed by the understandings gained from the historical chapters. This chapter is divided into two parts, which follow the research questions posed in the introduction. Thus, in Part One, I address the first research question: what can or should New Zealand expect from its industry training system? I then assess the extent to which the current industry training strategy contributes to those expectations and offer some reasons for its lack of success in a number of areas.

In Part Two, I ask why the industry training system fails to deliver all that might be expected. My argument is that, for the past three decades, the problems, and solutions thereof, of skill formation in New Zealand have been understood in terms of the supply-side. That is, we have either critiqued, or looked to reform, whatever system has been in place to train skilled workers. The inadequacy of this approach is evident from weaknesses in the ability of either the prescriptive apprenticeship system or the voluntaristic industry training strategy to deliver an appropriately skilled workforce. Thus, I argue, it is necessary to also examine the demand side of skill formation: the wider influences that impact on employers’ training decisions. As Fevre et al. (1998) argued, rather than patterns of education and training determining economic success, “the economy determines patterns of participation in education and training” (Fevre, Rees, Gorard & Furlong, 1998; cited in Keep, 2002, p.470).
Part One

9.1 What might New Zealand expect from its industry training system?

It is clear that some have very high expectations of industry training in New Zealand. The Prime Minister, Helen Clark, announcing in March 2004 an increase in the numbers in industry training, declared:

Our government has aggressively expanded industry training so that New Zealand can become a world-beating knowledge economy and society. More skills in our workforce will lead to higher productivity, more innovative products and services, and secure employment opportunities ("Big boost in industry training numbers," 2004).

The connection between industry training and the benefits envisaged by the Prime Minister is not, however, as straightforward as the quotation suggests. While it may be valid to make the argument that a skilled workforce is a necessary condition for a ‘world-beating knowledge economy and society’, it is certainly not a sufficient condition alone. Also, as this research has shown, global influences, wider government policies, work organisation and employer practices all impact on productivity, innovation and security of employment.

It is also clear that, in terms of industry training at least, while the state may have ‘dried out’ a little, it has not ‘withered’; nor does it appear likely to do so. While there was a great deal of comment by the case study respondents, and by the media, on the fine-tuning of industry training and skill formation in general, the (usually) unspoken assumption was that the state still has a vital role to play. The notion accompanying/drivering much of the reform in the early 1990s, that the market would work its ‘magic’ and that gradually industry would take full responsibility for its training, seems to have disappeared quietly.

Adequate and timely supplies of appropriately skilled workers

Regardless of whether industry training is state or market-organised, it is clear that New Zealanders expect that ‘someone’ should ensure adequate supplies of appropriately skilled workers. While currently there is political commitment to industry training, supported by many initiatives at individual, firm, industry and local government level, my research has
confirmed that no form of training system alone is able to deliver a skilled workforce. The wider factors that influence skill formation are discussed in greater detail later in this chapter, but as an introduction, I mention two potential challenges to the sustainability and longevity of current industry training initiatives.

First, a downward swing in the economic cycle in the past has inevitably resulted in the contraction of training, particularly at entry-level and for young people. It could be argued that the steady growth in industry training numbers (see Figure 4.4, p.97, and Figure 9.1, p.228) since the inception of the scheme in 1992 counters this claim. The industry training system, however, is relatively new and has thus not yet been greatly exposed to economic fluctuations, it has been well marketed and funded, and it has been subscribed to mainly by larger employers. There is a sense in which the numbers involved in the scheme could be seen as a ‘catch up’: low levels of training in the early 1990s, the development of national qualifications, requirements for benchmarking and various legislative requirements, for example, health and safety, have fueled employers’ demands for training. The level at which this demand will be satiated, and the robustness of the demand if the economy tightens, are yet to be discovered.

The second challenge to sustaining levels of industry training comes from future political changes. The present Labour-led Government has shown a commitment to stimulating the supply-side of skill formation. Whether such funding would remain intact under a ‘drier’ Labour Government, or a National Government possibly pledged to less state intervention, or tax cuts, is also unknown. The Modern Apprenticeships scheme, in particular, is relatively expensive and therefore vulnerable (see Chapter Four, pp.107-108).

117 I thank Darel Hall, of the Industry Training Federation, for making this argument.
Ability of workers to upgrade their skills

Regardless of employer commitment or government intent, however, there are three reasons why workplace-based training will become increasingly important in the future. First, although there may be scepticism about the extent and the depth, there have undoubtedly been many significant changes in work organisation and processes, and many of New Zealand's industries are now (more fully) exposed to international competition. The way in which New Zealand's economic base has altered since 1960 is illustrated in Figure 9.2 (p.229), which shows how the composition of New Zealand's exports has moved from traditional commodity products. These changes do require a workforce that is competent and adaptable, and workplace-based training can play a significant role in delivering this.

118 The annual stocktakes of industry training numbers use two sets of figures: the number of trainees registered with ITOs as at 31 December, and the number who have participated in industry training throughout the year. The former are used in Figure 9.1.
Figure 9.2: New Zealand exports (by value), 1960, 1980 & 2000 \(^{119}\) (New Zealand Official Yearbook)

\(^{119}\) I thank Professor Paul Dalziel, Lincoln University, for suggesting this format.
The second reason why workplace-base training is important is that there are many people for whom the formal education sector is patently not suited. The workplace may thus become a site for education, personal development and fulfilment. While it is easy to argue against 'empty' qualifications, in a society obsessed with pieces of paper the chance to obtain qualifications for 'doing what you do do well', is validating.

The third reason for the importance of workplace-based training is the changing nature of New Zealand's demography. Statistics New Zealand's population projections predict that:

The age structure of New Zealand's population will undergo significant changes, resulting in fewer children, more older people and further ageing of the population. This reflects the combined impact of sub-replacement fertility, longevity gains and the ageing of the large birth cohorts of the 1950s-1970s. By 2051, half the New Zealand population will be older than 45 years, compared with a median age of 35 years in 2001 (Statistics New Zealand, 2002d).

The ethnic composition of New Zealand's population age structure is also predicted to alter. Both Maori and Pacific peoples are likely to have higher population growth rates, fueled by higher fertility rates and the fact that both groups also have a younger age structure with a relatively large proportion in the main reproductive ages (Statistics New Zealand, 2002b, 2002c). Thus, "the need to improve Maori and Pacific educational performance is not just a question of social equity – demographic trends mean that it is also an economic imperative" (New Zealand Government, 2004, p.2).

The 'ageing' of the workforce is a recognised phenomenon in many countries. OECD (2002) figures suggest that over the next 25 years, there will be around 70 million people retiring from the workforce in OECD countries, to be replaced by only five million people. Comparatively, over the last 25 years, 45 million retired from the OECD workforce, and were replaced by 120 million people (Ministry of Economic Development, Ministry of Social Development, Department of Labour & Statistics New Zealand, 2003, p.8). The impact of this 'mega trend' was illustrated clearly in the case studies, with statistics of the age composition of the respective workforces (see Tables 5.4, 6.5 and 7.3). As internationally there will gradually be a relatively smaller pool of young people available for entry-level training, it will become essential to upskill and reskill existing workers and to provide opportunities for lifelong learning (Davey & Cornwall, 2003).
Secondary benefits

Some would argue that the expectations discussed above, a skilled workforce and the ability to upskill and reskill that workforce, are the only legitimate aims of an industry training system. Nevertheless, there are several potential ‘spin-off’ benefits from industry training. The degree to which these are fostered and funded depends upon the ethos of the government, the malleability of industry and the wider economic and social circumstances. I now discuss some of these possible benefits.

Clear transition routes for young people

School-leavers in New Zealand at the beginning of the 21st century face a labour market characterised by high levels of uncertainty... Where once relatively uncomplicated transitions were established... in recent years the multiplication of post-compulsory education courses, the fragmentation of the labour market and the attenuation of the link between education/training and the workplace have combined to make transition between education and employment a complex process (Higgins, 2002, p.44).

The complexity of the transition process highlighted by Higgins; the ‘mill and churn’ that young people experience as they move from adolescence to adulthood, requires that as a society we construct thoughtful and accommodating pathways to assist our young people. Although there is no necessary link between industry training and youth transition, I would argue that tradition, practicality and an ethical responsibility to our young people mean that as a country we are both justified and obligated to ensure that industry training is first, accessible to young people and second, that its structures facilitate transition (even if it is acknowledged that this is a secondary benefit).

Higgins (2002) analysed the two policy paradigms that have structured youth transitions in New Zealand in the post-war years. During the ‘Fordist’ years of full employment, transition policy was informed by ‘straightforward’ (if sometimes contested) assumptions that “an elite would carry on to university and that the remainder would move into (gendered, and to an extent, ethnically segregated) employment straight from school” (Higgins, 2002, p.47). As one of my respondents said, referring to his entry into employment in 1975:

I was never going to be a doctor or a lawyer, so some sort of trade...was inevitable I guess... Most of them [ended up as apprentices], most of the guys
I hung round with did, there was one or two maybe that didn't... Most of the
guys I knew went for apprenticeship, not too many went to University, which
was the only other step really. You either went to University, or you got an
apprenticeship (Interview with electrician).

The crisis of Fordism challenged many societal assumptions, not the least those
underpinning transition policies. As unemployment increased from the mid-1970s,
increasingly desperate governments attempted to stimulate employment via job creation
schemes and subsidies.\(^{120}\) Such policies, however, became an anathema after the election
of the 1984 Fourth Labour Government. A new transition model based on ‘training’
evolved, bringing together human capital theory and, into the late 1990s, the discourse
surrounding the knowledge economy/society. The exemplary transition path prescribed by
this model led “from qualifications gained through investment in education to sought-after
skills in the labour market and thence to income through employment; student loans are
repaid; income forgone over the training years is recouped” (Higgins, 2002, p.51). As in
many views of wider skill formation policies, this model emphasised the supply-side.

That this model can be subject to all the criticisms that are made of the human capital
approach, and that it also sits in the ‘knowledge economy optimist’ camp, with its attendant
difficulties, does not mean that it should be rejected, or that it is not a fair reflection of the
transition paths of some young people. Rather, in keeping with the human capability
framework, recognition of the wider influences on the transition process may allow a more
nuanced account, which better reflects the actuality of the transition paths that young
people take (or forge). An OECD (1999) review of transition, for example, suggested that
the key ingredients for a successful transition system were: a healthy economy; well-
organised pathways connecting education with work and further study; opportunities to
combine study with workplace experience; secure safety nets; good information and
guidance; and effective institutions and processes (Skill New Zealand, 2002b, p.4). This
recipe is particularly useful for its emphasis on wider economic factors, and for the
recognition of the importance of information and guidance, which is discussed later in this
chapter.

\(^{120}\) For an examination of the Muldoon Government’s response to unemployment, see Murdoch (2001).
Equity
As with the link between industry training and youth transition, there is nothing that implies that an industry training system must embrace equity goals. Indeed, it is questionable whether, if left to their own devices, any but the most enlightened of employers would actively pursue socially equitable outcomes when considering their training options. The reason for this, namely that the majority of employers consider that ‘the business of business is business’, also tends to produce sub-optimal levels of training (Keep & Mayhew, 1998), which, it is usually agreed, requires some degree of government intervention to correct. While it is beyond the scope of this thesis to debate the merits of intervention to better the lives of certain groups of people, it is fair to say that it is generally accepted that with government funding come obligations:

Government can say, ‘Well, here’s a hundred million bucks, now for that hundred million bucks, we want this level of credit achievement, we want this level of qualifications completion, we want to start playing around with the profile of trainees... we want more women, we want more young people, we want more Maori’ (Interview with industry training official).

Key or generic or core or foundation or ‘soft’ skills
The nomenclature surrounding such skills is as fraught and as politically loaded as the debate regarding the responsibility for their attainment. For the purpose of this discussion, however, I use the most recent term employed by the Tertiary Education Commission: ‘foundation skills’, which is taken to mean ‘literacy, numeracy and other basic skills’. Improving these skills so that “more New Zealanders are able to participate effectively in the economic and social benefits of our vision for national development”, was the third of six strategies of the Tertiary Education Strategy 2002-07, which underpins current tertiary education policy (New Zealand Qualifications Authority, 2003).

This push for an improvement in foundation skills was initiated by the findings of the 1996 International Adult Literacy Survey, which showed that “40 per cent of people employed in New Zealand [were] below the minimum level of competence required for everyday life and work, and 20 per cent [were] at the very lowest level” (Skill New Zealand, 2002f, p.4).

121 It must be noted that there are some businesses and employers whose use of ‘triple bottom-line’ accounting does create a climate favourable for some recognition of the ‘public good’ aspects of business and employment (for example, see Footnote 129).
This translated to over 200,000 people in the New Zealand workforce functioning at very low levels of literacy. Poor literacy levels, exacerbated by high numbers of workers with English as a second language, were of grave concern in the manufacturing sector, for example: "[very poor levels] of literacy and numeracy nobbled manufacturers’ productivity and posed health and safety risks" (Sinoski, 2003, p.1). Workbase, the National Centre for Workplace Literacy and Learning, estimated in 2003 that 50 percent of manufacturing employees were below the minimum level of literary competence (Sinoski, 2003).

While some in ‘industry’ may quail at being expected to deliver government-designated social equity outcomes, there appears to be greater support for the role of industry training in improving foundation skills.\(^{122}\) This is not unqualified, however. The 2002 interim evaluation of the Skill New Zealand Workplace Literacy Fund, established in 2001, reported that employers often felt that literacy was not their responsibility, given the wider benefits that it conferred to both the individual and society.\(^{123}\) Industry training organisations, although often aware of literacy problems in their respective industries, also maintained that “literacy skills were not part of their core business and not a priority for funding from the Industry Training Fund” (Skill New Zealand, 2002f, p.2). Thus, the joint funding process\(^{124}\) of the Literacy Fund was welcomed by ITOs and many initiatives were developed, with best practice involving the integration of literacy with industry training and firm-specific goals (Brumby, 2003, p.2).

Despite the obvious benefits of increasing foundation skills via industry training, there is a danger in conflating the (hopefully) ‘prestigious pathway’ with (putatively) remedial activity. The already perilously low status of workplace-based training may not necessarily be enhanced by identification with improving literacy levels. John Blakey, former head of the Industry Training Federation, argued that the ability to provide qualifications above Level Four (conferred in 2002 as a result of the Industry Training Review) gave industry training “a strong platform for breaking out of the ‘second chance education’ stereotype … the notion of industry training as simply teaching people to read or do arithmetic because

\(^{122}\) Although, given the concentration of poor literacy skills amongst Maori, Pacific peoples and some ethnic minorities, improving foundation skills is indirectly as much about equity as literacy (Skill New Zealand, 2002f).

\(^{123}\) Clearly in keeping with the tenets of the human capital approach! (Chapter Two, pp.27-31).

\(^{124}\) Contracts funded by the Skill New Zealand Workplace Literacy Fund were with a variety of ITOs, enterprises and providers, with some “complex stakeholder relationships” (Skill New Zealand, 2002f, p.3)
they did not learn those skills at school” (Gerritsen, 2002, p.5). Nevertheless, I would argue that literacy is a goal of intrinsic merit, as well as of economic and social benefit. As such, even at the slight risk of compromising the industry training system, it can and should be delivered where appropriate through that system.

This discussion of what New Zealand might expect from its industry training system has canvassed some of its direct and indirect aims. Industry training sits astride the institutions of the labour market and education (Schofield, 2000), and also encompasses public policy and private needs. Little wonder that the expectations of the system are complex and contested, and that it often fails to provide the panacea that some would promote.

9.2 How does the current industry training system perform?

In this section, I focus on three areas: how does industry training in New Zealand perform in the provision of skilled workers (with regards to both the quantity and quality of those workers); in providing opportunities for workers to continuing to upgrade their skills; and in providing transition routes for young people? The equity imbalances in both industry training and Modern Apprenticeships have been discussed in detail in Chapter Four (p.101 & pp.111-114). Because ‘generic’ skills are integrated into national qualifications, it is not possible with the limited data available to assess how well the industry training system delivers such skills. As discussed above, literacy and numeracy programmes are currently being delivered outside of the industry training framework, and therefore, while crucial, also fall outside of my analysis.

Adequate and timely supplies of appropriately skilled workers

If indeed New Zealand expects its industry training system to provide adequate supplies of skilled workers, then many ‘screaming’ headlines throughout 2003 and early 2004 attested that it was not performing well. The Department of Labour’s February 2004 report, *Skill in the labour market*, confirmed these media perceptions. Difficulties in staff recruitment were found to be “more of a problem in recent quarters than at almost any point in the last 25 years” (Department of Labour, 2004b, p.1). Fifty per cent of firms surveyed reported difficulty in finding skilled staff, 27 per cent in finding unskilled staff (higher levels than at
anytime since the 1970s); and 20 per cent listed labour as the main constraint on expansion (a figure unprecedented in post-1984 New Zealand). Some of the most severe shortages were reported in areas where the industry training system is the main supplier of skilled workers, for example, building and construction; vehicle and engineer service and repair; and engineering (Department of Labour, 2004b).

As I argued in Chapter One (p.5), however, it is unrealistic to blame the industry training system alone for shortages of skilled workers. There are several factors that have exacerbated the current shortages — the shortfall in training from the 1990s, the reasonably strong level of economic growth and low levels of unemployment, for example. Given, however, that the last two of these factors are viewed as desirable by many people and that much of the present Government’s focus is on at least maintaining, if not extending, growth and employment levels, it seems reasonable to argue that New Zealand’s industry training system needs to incorporate enough flexibility to cope with periods of economic expansion. Yet, as the lessons of the 1990s have shown, it must also be empowered to encourage counter-cyclic training when the economy contracts. The wider factors that encourage or constrain such flexibility are discussed in greater detail in the following section.

Ability of workers to upgrade their skills

Clearly, the skill shortages discussed above mean that there is a present and urgent need for New Zealand’s industry training system to have the ability to upskill and reskill workers, on top of the ‘bigger picture’ requirements discussed earlier (pp.228-229). In a time of acute labour shortages, firms need to provide training first to retain their current workers and second to enable them to perform a wider and deeper range of skills. Third, in a tight labour market, the ability of firms to source or ‘poach’ skilled labour may be circumscribed, and therefore they are often obliged to hire and upskill semi-skilled workers, or to train unskilled workers. While immigration has been posited as a potential solution for skill shortages, the process is lengthy, overseas qualifications do not always transfer well

125 For the year to March 2004, New Zealand’s growth rate was 5 per cent (measured as the annual percentage change in production GDP) (Department of Labour, 2004a) and its unemployment rate was 4.3 per cent (the fourth lowest rate in the OECD countries) (Statistics New Zealand, 2004b).
and New Zealand must compete with other countries for the limited supply of skilled workers.\textsuperscript{126}

No doubt these requirements have helped boost the numbers in industry training and in part account for the increase of numbers of employers participating: an increase from 21,901 in 2001 to 29,206 in 2003. In many respects, then, the workplace has become a learning place. In 2002, just over 2 million credits towards national qualifications were achieved, with 71 per cent of these being at Level Three or above. Trainees completed 9,761 National Certificates, 79 per cent of which were at Level 3 or above. One of the most heartening statistics was that 28 per cent of trainees had no previous qualifications. Thirty-nine per cent of Maori and 34 per cent of Pacific trainees were in this category (Tertiary Education Commission, 2003a, 2004c).

It is difficult to ascertain from the statistics, however, exactly how many trainees are acquiring ‘high-level’ skills, which could be regarded as contributing to ‘higher productivity’ or ‘innovation’. As John Blakey, the then head of the Industry Training Federation, admitted, “most of the 81,000 people involved in industry training [in 2001] were training at about level two of the National Qualifications Framework, a level as much about giving people confidence in their ability to learn as it is about actual training” (Gerritsen, 2002, p.5).\textsuperscript{127} Again, the issue arises as to the respective merits of the acquisition of remedial, ‘soft’ or generic skills versus the acquisition of complex, ‘hard’ or industry-specific skills. As one respondent said:

\textit{What we found was that with all funding that was going into Level 1 and 2, which are process workers, and, ‘Can you speak English?’ and stuff like that, all the funding was going into that, and there was very little going into Level 4, Level 5, and should be Level 6 and Level 7. Whereas now, I’ve been looking for courses for the leading hands and foremen to do, for about the last three years, and that’s why I was getting really frustrated. There was nothing, it’s all this lower end stuff, which doesn’t help, you know, they talk

\textsuperscript{126} As at June 2004, trades sought on the Immigration Service’s Priority Occupations List were electrician and automotive mechanic. On the Occupational Shortage List, trades that had a national shortage were: aircraft engineer; auto electrician; boatbuilder; builder; plumber; telecommunications engineering technician; cabinet maker; carpenter/joiner; drainlayer; fitter & turner; gasfitter; heating, ventilation and refrigeration mechanic; line mechanic; and welder (\url{www.immigration.govt.nz}).

\textsuperscript{127} In a much ruder vein, in South Australia, Certificate 1 (the equivalent of Level 1 in New Zealand) awards are apparently referred to as the ‘budgerigar’ level, which stems from a comment made on the required achievement for the certificate: ‘My budgie can do that’ (Ryan, 1997, p.8).
Youth transitions

In the previous section, I argued the case for using industry training to facilitate youth transition. While the percentage of industry trainees aged 15 to 19 years has improved, rising from 8.5 percent (8097) in 2001 to 9.7 percent (10379) in 2002, much of this improvement was due to the Modern Apprenticeships scheme (Tertiary Education Commission, 2003a). I do not question the value of this scheme but, as discussed in Chapter Four and in the case studies, the entrance requirements for Modern Apprenticeships tend to be reasonably rigorous. Thus, many of the young people who could benefit from access to a formal transition route via industry training are still excluded because they are either unemployed, or have no or few qualifications, or both.

Since the introduction to this thesis was written, using 2001 figures, there has been little improvement in the rates of youth unemployment. While the total unemployment rate dropped from 5.3 per cent in June 2001 to 4.6 per cent in June 2003, and there was a corresponding drop in the unemployment rate for 15 to 19 year olds, from 15.7 per cent in June 2001 to 13.6 percent in June 2003, the rate remained unacceptably high, as shown in Figure 9.2 (p.239). This percentage translated to a figure of nearly 20,000 unemployed 15 to 19 year olds in June 2003. The total unemployment rate was also considerably worse for Maori (10.4 per cent) and Pacific peoples (7.1 per cent), compared with the European/Pakeha rate of 3.4 per cent (Statistics New Zealand, 2003c).

Part of the reason for these levels of youth unemployment is likely to have been the continuing numbers of young people who left school with no or few qualifications.128 In 2002, 18.3 per cent (9600) of students leaving secondary school did so with no or few formal qualifications (17 per cent in 2001). Thirty-five per cent (3301) of Maori students and 38.3 per cent (1753) of male Maori students were in this category (37 percent in 2001).

128 During 1991 and 2000, between 30 and 40 per cent of the young people aged between 15 and 24 who received an unemployment benefit had no qualifications. In the same years, between half and two-thirds of domestic purpose beneficiaries aged 15 to 24 did not have any school qualifications (Statistics New Zealand, 2001b).
There was also a regional dimension to these statistics with areas such as Northland (25.1 per cent), Gisborne (24.3 per cent), West Coast (30.1 per cent) and Tasman (31.1 per cent) having significantly higher percentages than the average. The numbers of students leaving with few qualifications were also concentrated in the lower decile schools. Of the 10,032 students in Decile 1 to 3 schools in 2002, 31.3 per cent left with no formal qualifications, compared to just under 10 per cent of the 17,283 students in Decile 8 to 10 schools (Ministry of Education, 2003).

Figure 9.3: Unemployment rates, 2001-2003 (Statistics New Zealand, 2002a, 2003c)

Unemployment rates, 2001-2003
(by selected age groups)

<table>
<thead>
<tr>
<th>Year (June)</th>
<th>15-19</th>
<th>20-24</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>18</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>2002</td>
<td>16</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>2003</td>
<td>14</td>
<td>10</td>
<td>12</td>
</tr>
</tbody>
</table>

These figures should be a source of national shame. Neither the waste of such a valuable resource, particularly in light of the skill shortages discussed above, nor the effective consignment of so many young people to the 'scrap heap', are acceptable in a country that has any pretensions towards becoming a 'knowledge society'. The New Zealand Business Council for Sustainable Development,129 together with the Mayors' Taskforce for Jobs, recognised this and established in 2002 a Youth Employment Project. Of interest to this

research is the way in which some of the participants in the Project have used the industry training system to first, give unemployed young people access to training and second, to make that training meaningful and ongoing. For example, in Christchurch, City Care, the construction and maintenance arm of the City Council, developed a scheme to “ease young people into trades training” (New Zealand Business Council for Sustainable Development, 2003, p.14). In September 2002, twenty young long-term unemployed people were offered a year’s paid employment and training, moving through eight of the organisation’s occupational areas, with apprenticeship opportunities for at least twelve trainees at the end of the year. Training included generic trade skills, life skills and mentoring via a ‘buddy’ system, with trainees working towards a National Certificate in General Contracting Skills (Level 2) (New Zealand Business Council for Sustainable Development, 2003). The scheme resulted in twelve trainees moving into apprenticeships with City Care, with the remaining trainees also being placed in employment with other organisations. The scheme has been repeated in 2004, with 24 pre-apprentices (five school leavers and nineteen unemployed youth) and there are plans to expand the scheme to the North Island.  

There has also been recognition of the importance of youth transitions at government level. In the 2004 budget, $56 million was allocated for a Youth Transitions package. This funding included the expansion of the Gateway scheme (see p.154) to all Decile 1-6 schools by 2008, funding for an extra 500 Modern Apprenticeships places and various other initiatives designed to ease the transition process. The government’s goal was “by 2007, to have all 15-19 year-olds engaged in education, training, employment or other appropriate options which will lead to long-term economic independence and well-being” (Tertiary Education Commission, 2004d, p.1).

In this section, I have shown that the performance of New Zealand’s industry training system is less than desirable in some areas. There are acute skill shortages in many occupations and regions. While many people are gaining new skills through the system, there is some doubt as to whether they are necessarily at a level that will contribute to a ‘knowledge society’; and the equity of the system is questionable. In Part Two of this chapter, I offer some thoughts on possible reasons for these shortfalls.

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130 S.Holst, Human Resource Manager, City Care, personal communication, 26 July 2004.
Part Two

9.3 Why does industry training not deliver as well as it should?

In Part Two of this chapter, I follow Toner's (2003b) useful analytical distinction between supply-side and demand-side explanations for skill imbalances. Although Toner used this approach to examine declining apprentice training rates in Australia, it is equally applicable to the 'bigger picture' of skill formation in New Zealand. It helps the argument that I have been moving towards to coalesce: that considering the supply-side alone is not adequate either for skill formation policies, or for attempting to understand those policies. In contrast to the previous sections, where I have discussed upskilling or reskilling and equity issues separately, I now integrate them into the wider discussion, in order to consider them within the supply/demand-side framework.

Of course, supply/demand-side economics have to do with much more than just skill formation. Supply-side and demand-side approaches depend on "distinct analyses of the bases of production, exchange and competition" (Toner, 2003b, p.458). Demand side economics examines the demand for any given good or service, and the factors that affect that demand. As a description: "the supply side of an economy is where production is organised, factors of production are hired, and prices are set" (Bertram, 1997, p.49). As a prescription:

supply-side economics focuses on the investment, savings and work decisions of individuals and how these are affected by government social spending and taxation...It is assumed that individuals are motivated primarily by monetary considerations...Supply-side implications for policy include rationales for tax and welfare cuts, as well as support for market liberalization (Goldfinch & Roper, 1993, pp.62-63).

Such ideas clearly underpinned many of the post-1984 changes: "New Zealand's economic policy focus [shifted] from Keynesian demand side intervention to individualist supply side intervention" (Bertram, 1997, p.44). The efficacy of these reforms has been the subject of much debate (see Chapter Four), but Bertram's assessment that the post-1984 decade "left the productive side of the economy weakened by a decade of low investment and the
deskilling effects of long-term unemployment” certainly fits with the legacy of skill formation from that time (Bertram, 1997, p.54).

With regards to training, the supply-side approach is rooted in human capital theory, arguing that employers and trainees make rational training investment decisions based upon cost-benefit analysis. The demand-side approach focuses on structural and institutional influences on the level of training, and takes more account of cultural and historical specificities (Toner, 2003a). With this distinction in mind, I revisit the human capability framework (see Chapter Two, pp.31-32) to analyse, at a more specific level, some of the factors that prevent New Zealand’s industry training system from delivering the required numbers of skilled workers. I begin with the ‘capacity’ or supply influences, providing first an overview; second, discussing the gaps in training capacity that resulted from the voluntaristic model introduced in 1992, and third, examining the wider societal influences that have made the ‘trades’ or industry a ‘second best’ choice for young people. I then examine the ‘demand-side, or ‘labour market opportunity influences’, which, I argue, have a much greater impact on skill levels than supply factors. I begin with demand constraints at the level of the employer or firm, and then discuss wider institutional and societal attitudes, expectations and obstacles to appropriate skill formation.

The supply-side: Reviled, reformed and revered?

**Overview**

There are three (albeit blurred) phases to the supply-side explanation for why New Zealand’s industry training (or apprenticeship) system did not and does not always deliver the desired results. The first phase, discussed in detail in the closing pages of Chapter Three and in Chapter Four, occurred from the mid 1970s as governments and industry struggled to cope with the results of the unravelling of the Fordist consensus. The existing apprenticeship system was increasingly critiqued for being conservative and inflexible, and for failing to provide workers with skills necessary for rapidly changing work processes. As shown in both Chapters Three and Four, the plethora of government reports throughout the late 1970s, the 1980s and the early 1990s, in keeping with the underpinning human capital approach, concentrated almost exclusively on the reformation of skill supply mechanisms.
As neo-liberalism cemented its economic dominance in the government’s thinking in the late 1980s and early 1990s, the market became the ‘answer’ to the perceived ‘supply-side’ problems. Thus, the second phase began, ostensibly with the 1992 *Industry Training Act*, which exposed skill formation to the rigours of the market. As Keep and Mayhew (1999) pointed out, however (talking about the United Kingdom, but of equal relevance to New Zealand), while direct state regulation (and therefore responsibility) was removed, it was replaced by a morass of indirect regulation: the national qualifications framework, contractual relations with industry training organisations, and ‘outcome’ requirements for training providers, for example (Keep & Mayhew, 1999). As a background to this phase of market reformation of the supply-side, the state may be conceptualised as the ‘enterprise state’ in which “public functions are contracted out to semi-independent agencies...[This] shifts the responsibility for policy effectiveness off governments’ shoulders and allows blame for failure to be privatised” (Vickerstaff, 1993, p.153).

As the limits of the quasi-market model for facilitating skill formation became clear through the late 1990s, the third phase of the supply-side approach began to emerge. In light of the ‘third way’ rhetoric, and in keeping with its holy grail, the ‘knowledge economy’, a supply of highly-skilled workers came to seen as the warp and weft of the magic carpet that would carry New Zealand to the top of all the OECD tables. One of the characteristics of Jessop’s (2000) Schumpeterian workfare post-national regime, “international competitiveness and socio-technical innovation through supply-side policies in [a] relatively open econom[y]”, is clearly evident as underpinning yet another reworking of faith in the supply-side of skill formation policies (Jessop, 2000a, p.2).

In summary, as the ‘golden weather’ ended in New Zealand, the apprenticeship system that supplied the country’s skilled labour got much of the blame for economic decline; from the late-1980s it was believed that the market reforms would provide the supply of whatever levels and types of skill were deemed necessary; and from the late 1990s, the supply-side has been regarded as New Zealand’s saviour – secure a skilled workforce and nirvana will follow. As has become clear throughout this research, however, New Zealand’s economic woes in the 1970s went much deeper than skill obsolescence or mismatches; the market did not deliver a skilled workforce in the 1980s or 1990s; and nirvana in the twenty-first century will require much more than a skilled and well-qualified workforce.
The supply-side: Market magic?
The ways in which supply mechanisms were reviled and reformed were discussed at length in Chapters Three and Four, and in the earlier sections of the case studies. The result of the debate, the introduction of a voluntaristic industry training system, allowed training to stop altogether in some areas and severely impacted on training levels in other areas. Of course it is unfair to blame the new system entirely for this; recession, the demise of government training; and the accompanying increase in self-employment, for example, also contributed to the decline in training. Nevertheless, the removal of both legal regulation and the moral obligation to train embodied in the tripartite apprenticeship committees, allowed many employers to lapse into the short-term benefits to be gained from not training. One of the most obvious weaknesses of throwing training to the marketplace is that the underlying assumption of the human capital approach, that employers will make rational decisions with regards to training, based upon cost-benefit analysis, is exactly what happens! In tight economic conditions, with uncertain forward workloads and a reasonable supply of already trained workers, cutting training is an eminently sensible response at the level of the employer or firm.

The voluntaristic system also reinforced the disadvantages that women faced in gaining access to industry training. Pocock (1992) compared entry-level training for women over several countries, finding that industry-led training systems first tended to constrain access to training and, second, tended to reinforce poorer outcomes for those women in training: “Placing overall control of entry level training in the hands of industry – without a firm legal framework and frequent monitoring – will widen...gaps and replicate and reinforce women’s secondary status (Pocock, 1992, p.ii).

That New Zealand paid the price for leaving levels of training to be determined by the market was evident in the case studies. The skill shortfall was thrown into greater relief as the 1999 Labour-led Government, and its 2002 successor, looked to an improvement in skill levels as a ‘silver bullet’. New Zealand has been repositioned as an ‘innovative’ economy, focusing on biotechnology, information and communication technology and the ‘creative industries’, the argument being that if only we can supply these industries with
lots of highly skilled workers, they will move New Zealand away from reliance on the 'old' commodity-based industries and create new levels of wealth (Baragwanath, 2003a).

Despite a degree of naivety in the faith placed in the transformational powers of such industries (see Baragwanath, 2003, for a critique), and despite the fact these industries may require relatively few highly-skilled workers, the rhetoric surrounding 'knowledge' and 'innovation' has fueled an increasing emphasis on the value of tertiary education for young people. This trend, which emerged during the 1980s (partly in response to burgeoning unemployment), privileges academic or institutional 'education', at the expense of work placed-based 'training', exacerbating the perennial problem of the low status of the trades and 'industry' in New Zealand.

The supply-side: Industry training, “A great idea for other people’s children”

There are three strands to the ‘supply-side’ of skill formation (in the context of industry training). There must be the opportunity to train (provided in New Zealand by employers); there must be the means to complete the formal requirements for certification (generally via training providers); and there must be those willing to undertake training. In Chapters Three and Four, and in the case studies section, I have examined the vagaries of employer commitment to training, worsened by deregulation, and the changes that have taken place in the off-job training and certification. In this section, I discuss the third strand, the supply of those who wish to take part in training. I examine the overwhelming view of those in industry that the trades and industry are not attractive to young people and that the blame for this lies almost exclusively with schools. I offer some responses to this generated from interviews with careers counsellors from a selection of Canterbury schools.

As illustrated in each of the case studies, it was clear that many of the respondents felt that their trades, and industry as a whole, were held in low repute and were not considered viable career options (if they were considered at all) by young people. The education system received the lion’s share of the blame for this: “It’s hard to find a senior trades’ professional who doesn’t hold the view their trade fell out of favour with school career guidance counsellors” (Fallow, 2003). As one respondent said:

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132 Careers counsellors from four schools were interviewed: three co-educational and one single-sex (boys).
The other issue we've got is trying to convince teachers, who may have the opportunity of saying to these guys, 'Do you want to be an electrician?', what they're going to need. My experience is, and it's a little bit controversial, that teachers are hell bent on keeping all their kids to the 7th form now because of bulk funding. Anyone leaves in the 6th form; they don't get the funding for them in the 7th form. So the teachers are not encouraging them into trades. They want them all to go to university...I see by the amount of applications I get, that there has got to be more than this amount of kids in Christchurch who want to do an electrical apprenticeship, there's got to be. I don't think the schools are doing us much service (Interview with group training company official; respondent's emphasis).

It was not necessarily the teachers who were applying such pressure, however. The mixed messages that students received from government and wider society were identified by some respondents: on the one hand, 'become one of our flash new Modern Apprentices', and on the other, 'stay at school for as long as you can'. As one careers counsellor described:

This lad could have had an apprenticeship with an engineering firm but, no, he had to stay [at school]... He was doing motor industry training here at school and with Avon City Ford...and the last time that he was supposed to be out for a full week at Avon City Ford to do all his trade tests, he came and said, 'No, I'm not going - it's much more important that I stay at school, 'cos I've to get my tourism unit standards, 'cos I'm going to be a travel agent'. And he hadn't a hope, not a hope...you know, if he'd followed through at least he would have had a completion of virtually the first year of his apprenticeship in the motor industry... and he threw it away, 'cos he 'had to stay at school'. Now he's doing a dead-end job, when he's actually turned down two fantastic opportunities, because he was 'going to do tourism or travel' (Interview with careers counsellor).

There were three components to the concerns regarding the education system expressed by many of the industry respondents. First, some were shocked by the lack of basic abilities that some of the applicants for training positions exhibited:

Just can't fill them [advertised positions] with suitable candidates, the people we get can't read and write, you know. I could show you a simple maths test I gave six candidates in Timaru last week, and nobody got over seven right, and you know, it was, 'I've got 4 kegs of nails, a 100 kg in each keg, how much have you got?' And they couldn't multiply 4 by 100, 'cos we don't give them calculators (laughter). And what I'm saying is, the system has been built on shaky sand, you know, the schools are not doing the basics right, so these kids can actually go back and do these things (Interview with group training official).
The second component was complementary to the first; the lack of ‘suitable’ candidates applying for positions. While the respondents involved in the recruitment of apprentices seemed generally happy with those they did employ, it was felt that there was a very small pool from which to choose, and some reported unfilled vacancies.

The final component was criticism of changes to the school curriculum. For example, Bruce Howat, of Apprentice Training New Zealand, argued that: “many young people were ill-equipped to start apprenticeships because the amount of practical woodwork and metalwork in the new school technology curriculum had been reduced. At home, opportunities to work with tools had been reduced because housing space did not allow for workshops and many children were in one-parent homes” (Collins, 2003). The trend towards the ‘academicisation’ of traditionally ‘manual’ subjects was also noted by a careers counsellor:

> And we’ve actually had a debate here within the last week, where the comment was made that we don’t have enough practical subjects, that don’t include academic stuff now, because the way that the 5th and 6th form qualifications in say metalwork have gone, is it’s design and build, and a lot of the kids get put off by the design side of it, they either can’t do it, or they’re incompetent at it, and they hate that part, and if they don’t design something, they don’t get to build anything, and they fail the course because they didn’t design properly, or they get a low grade because they didn’t design properly (Interview with careers counsellor).

Despite the bemoaning by some in industry of the poor calibre of many applicants, and the setting of higher entrance benchmarks for some trades, a common theme expressed by industry respondents was that apprentices or trainees needed to be merely ‘good enough’, that is, able enough to cope with the work and training, but not so clever that they would be bored, and move on or be ‘poached’:

> You know, we’re not after rocket scientists, what we’re after is people from average to upper average. If they come to us and they’ve got School Certificate marks of, sort of, between 50 and 65 for say English, Maths and technical, or metal-work or something like that, they’re probably going to make a good apprentice. And if they’ve come off a farm, they’re probably going to be an even better apprentice! (Interview with manager, engineering firm).
There was recognition by some respondents that the type of recruit who may be desired at industry level would not necessarily be favoured at the firm level (see Chapter Six, p.181 for an example of this). Rikowski (2001) argued that often “employers’ statements regarding their needs in relation to youth labour [were] either ambiguous, or confused, or downright contradictory” (Rikowski, 2001, p.30). This may shed some light on the vehemence of the attacks on the education system by those in industry. Given the rather ‘Goldilocks’ specificity of their requirements: ‘not too clever, not too dull’; ‘not too cocky, not too shy’; ‘not too adventurous, not too dependent’; and so on, it is not surprising that the education system fails to turn out the ‘just right’ product expected on every occasion.

While many of the concerns discussed above are hardly new in New Zealand (see Chapter Three) and are also consistent with Rikowski’s ‘long moan of history’ (Chapter Two, p.25), there is little doubt that the catchment of young people interested in the trades or industry has diminished. For example, a 1999 study into the transition experiences of a group of New Zealand school students found that of a sample of 321 students in their final year, only 2 per cent (6) aspired to a career in the trades. A year after leaving school, the number interested in the trades dropped to five, while 27 percent (85) aspired to be professionals and 20 per cent (63) planned to become technicians or associated professionals. While these results were skewed because the majority of students (78 per cent) surveyed were in Year 13 (it would be fair to assume that many interested in apprenticeship or pre-apprenticeship courses would leave after or during Year 12), they still indicate a general lack of interest in the trades (especially when compared with intakes of over a third of male school leavers during the halcyon times of the late 1950s!) (Boyd, Chalmers & Kumekawa, 2001). The success of the ‘rebranding’ of apprenticeship via Modern Apprenticeships was also called into question by a ‘Destinations and Tracking’ survey carried out in 2003 by Careers Services, where Modern Apprenticeships “barely register[ed] as a choice and certainly not [as] a priority” (Career Services, 2003).

One of the most significant changes reported is that those who are academically sound, but not necessarily high achievers, and who in the past may have considered apprenticeship, now do not; rather, they more often move into some form of tertiary study. For example, an engineering company manager in Timaru reported difficulty in getting people to train because of lack of basic qualifications: “I don’t see how it’s going to change. People who
have the ability to become good tradespeople are going to university rather than entering the trades field” ("Lack of qualified staff costing firms work," 2000, p.1). One respondent, a careers counsellor, identified the difficulty that the ‘trades’ had in attracting this valuable ‘slice’ of those leaving school:

Let’s look at it from industry’s side. Think of your engineers and your furniture makers and your mechanics. They haven’t invested in training for numbers and numbers of years, and the highly skilled, the brighter guys, the clever guys, who are now are 45, 50, 60 are moving out. They’re not having too much trouble replacing the labouring type guy, who just gets through an apprenticeship, they’re always available, I think what they’re desperately short of is the A grade mechanic, as opposed to the labourer... and so now the big, big focus for industry, and they’re realising, ‘Man, we haven’t got these people’, they’re actually tapping into and wanting to get what everyone else wants to get, and they’re the top 10, top 15 per cent, and those guys all believe, the top 20 per cent believe, they’re going to university... and the army wants them... and the navy wants them... (Interview with careers counsellor; emphasis added).

Wolf (2002), a British commentator, argued that the actions of many young people in opting for tertiary education, rather than entering the labour market straight from school, was a perfectly rational response by young people and their families to changing conditions. Thus, when it is perceived that the “labour market is constantly changing and constantly insecure”; when there is the high chance of many occupational changes throughout working life; and when tertiary education is no longer confined to an elite, then: “it is no longer a question of whether it makes sense to stay on longer [in formal education], but of whether they can possibly not stay on without putting themselves at a serious disadvantage” (Wolf, 2002, p.86).

These trends and the generally poor standing of the industry and the trades were recognised by the careers counsellors I interviewed. In many ways, the careers counsellors were the ‘meat in the sandwich’ between the often largely academic aspirations of their schools, and the disdain with which the education sector was regarded by those in industry:

I know that assemblies at our school... there's a big, big emphasis; academic, academic, academic, and unless a kid was really, really, really listening hard... that's clearly identified with university (Interview with careers counsellor).
Given that industry and the 'trades' must cope with the facts that they have a smaller pool of young people from which to recruit; that there may be a wide range of abilities within that pool; and that there are longstanding status issues with the sector, the comments of the careers counsellors highlighted three issues that contributed to the recruitment difficulties encountered by those in industry and the trades.

First, families are a significant source of information for young people (Boyd et al., 2001). It is clear that the trends discussed above, and the impact of changes to the training system through the 1990s, have not escaped the notice of either young people, or their parents and families:

*The biggest influence on kids' career choices is still the family and the family who's got a 16 year old kid has known that ever since their kid was born, there's been no apprenticeships. So what's the family saying? When you leave school, if you can't go to university, you'll struggle to get a job, because there's nothing else to do, and so you'll have to go and work in Kentucky Fried or McDonalds... (Interview with careers counsellor; emphasis added).*

*You can't get apprentices... We've got four apprenticeships at the moment been offered to the school and we can't get anybody to take them. Apprenticeship, unfortunately, I think because of a lot of adverse publicity a few years ago, like 'apprenticeships were finished', and this is the message that went out there... (Interview with careers counsellor).*

The careers counsellors were clear about the need for publicity to counter some of the perceptions regarding industry training and apprenticeships:

*So we need Skill NZ and/or industry to advertise on the TV, ('cos that's the only thing that people notice) to advertise on the TV that there are apprenticeships, and people desperately need them (Interview with careers counsellor; respondent's emphasis).*

Second, the perception of industry and the trades is incontrovertibly both poor and incomplete. While patchy knowledge may also be an issue with other careers, it often tends to work in favour of the occupation, whereas many of the myths surrounding the trades (that they are low paid and dirty, for example) are negative and may have at least some basis in truth:
Well, I suspect from the kids' point of view, it's a bit misted over by parents, who still sort of see factories, oil, smoke pouring out of a chimney- 'Trades! Phew, we'll go to university!' (Interview with careers counsellor).

I think with some of the kids, they see a trade as a carpenter or a builder or a plumber, but they don't see all the other technical trades... They think it's building and mechanics, and then they generally stop... and then they might stretch to automotive electrician, because their interest is cars... (Interview with careers counsellor).

I think we're becoming a service industry country... I mean, tourism is everything, and so cafes and shops and tours... that's very visible, whereas what's going on in the depths of Sydenham or Woolston is not visible at all and it probably looks like, it probably is, an old building that's dirty and dusty on the outside, might be quite clean inside, but outside it hasn't been painted bright orange with flash words on the outside. It's just a shed that people work in (Interview with careers counsellor; respondent's emphasis).

Third, in defence of the attacks on the education system by those in industry and the trades, the careers counsellors commented on the need for industry to better market itself. They were unanimously prepared to be a conduit from industry to the students, and worked extremely hard to promote the opportunities that were offered; but battled a lack of information and the attitudes discussed above:

*Industry has a responsibility! You bring some of our old boys back in here, and you put them on the stage, and get your old boys to talk on the stage* (Interview with careers counsellor; respondent's emphasis).

*Industry needs to be in our workshops, beside our teachers. They need to send a senior apprentice down, to assist the teacher, once or twice a week, and they need to be getting schools placement, and they need to be getting schools into projects* (Interview with careers counsellor).

The comments of my respondents were echoed in the findings of a study carried out by George (2002). She surveyed 104 Otago University students regarding their knowledge and perceptions of the 'trades', finding that “students had a limited knowledge of what occupations denote a trade, what skills and training are required to become a tradesperson and finally what financial return and employment prospects can be offered by the trades” (George, 2002, p.ii). The problem of the low status of industry and the trades, and of apprenticeship, is not confined to New Zealand. In Australia, for example, a study by
Marshman that examined barriers to the employment of apprentices, reported identical issues to those highlighted by my respondents (Marshman, 1996). Similar themes were identified in Canada by Robertson (1998).

The supply-side: Summary

A supply-side analysis of skill formation would argue that increasing the supply and quality of skilled workers via industry training, best achieved by, first, allowing market mechanisms to determine the level of training and, second, by giving training providers the flexibility to tailor formal training as required, should be sufficient to move a country to a ‘high-skill’ or knowledge economy. As we have seen, however, New Zealand’s faith in the supply-side over the last three decades has been somewhat misplaced. We have dire skill shortages; access to industry training is often inequitable; and perceptions regarding industry and the trades have impacted upon the number and quality of young people attracted to the sector. The supply-side ‘diagnosis’ of these problems, that “work-based training was prejudiced by a series of market failures affecting the decision-taking of both employers and workers”, has resulted in continual tweaking of the system, to little avail (Keep & Mayhew, 1999, p.4). I now turn to demand-side explanations for why the industry training system alone can not be expected to be the ‘answer’.

The demand-side: The ‘too hard’ basket?

As the historical and case study chapters illustrated clearly, training decisions made by individual employers, the aggregation of which represent the level and quality of training for New Zealand as a whole, are influenced by a plethora of factors. In this section, I first discuss such ‘demand’ influences at the micro level of the employer or firm, exploring barriers to training and some of the constraints to the demand for skills. In terms of Jessop’s levels of analysis of late capitalism, I consider the impact on training of changes at the level of the labour process. I then move to broader influences (the accumulation regime and the mode of regulation), such as the changing shape of the workforce, labour market regulation and wider economic factors, all of which impact on training levels. I must also note at this point that my field work was conducted exclusively with respondents who were involved with training, either with its delivery, its organisation or as part of a business that had a commitment to, and was actively participating in, training. Thus, while my data enabled me
to explore some of the factors that encouraged or constrained training, it does not shed any light on firms or employers who simply are unable, or choose not, to train.

This caveat was also noted in the report of the Business NZ \textsuperscript{133} Skills and Training Survey (2003), which provided further empirical data for this section. The sample for this survey was taken from the members of the regional business associations constituting Business NZ:

Firms that join business organisations are more likely to be seeking to improve the overall performance of their enterprise, and may therefore be more likely than others to engage in training and skill development for their employees. Overall, the results of this research are likely to tell us more about those firms which do engage in training and skill development, and why they do so, than about those enterprises that do not do so (Business NZ & Industry Training Federation, 2003, p.13).

The survey drew a response from 479 enterprises, which employed over 49,000 workers. In summary, 89 per cent of enterprises surveyed were providing training for their employees and over half of the enterprises had increased the training provided over the last two years. Although there were significant differences in the amount spent on training across industries, the mean amount spent on training over the previous year was 3.7 per cent of total payroll. Further survey results will be discussed as this section unfolds, including reasons for, and barriers to, training. It is interesting to note that “significant numbers of firms indicated (unprompted) that they would ‘always provide training’, irrespective of any reasons why they might not” (Business NZ & Industry Training Federation, 2003, p.8).

The demand side: What encourages firms to train?

Stonyer and Marshall (2002) set out cogently some of the major factors that drive industries to take part in training. These are: competitiveness; the need for a flexible and multi-skilled workforce; the regulatory environment; workplace change, both technological and organisational; and a commitment to a learning organisation, which they described as a synergy between training and business strategy (Stonyer \& Marshall, 2002). To these, I would add the moral obligation to train that many employers feel, especially those who

\textsuperscript{133} In 2001, the New Zealand Employers' Federation joined with the New Zealand Manufacturers' Federation to become Business NZ (Business NZ \& Industry Training Federation, 2003, p.11).
have themselves had the benefit of structured training. While all these factors are important, and were reflected to varying degrees in the case studies, the Business NZ Skills and Training survey identified a more pressing impetus for training in New Zealand in 2003. Fifty-five percent of those surveyed identified skill shortages within the enterprise as the most important reason for training, with 48 per cent mentioning skill shortages at the industry level (Business NZ & Industry Training Federation, 2003).

The demand-side: What are the barriers to training at the level of the firm?

There is a fundamental problem there, that industry is not here, we're not here to be a training organisation, we're here to manufacture and make money, and that's... we're expected to be partially a training organisation, so that's the problem, yeah. I don't know what the solution is, really (Interview with manager, engineering firm).

Cost The cost of training is clearly one of the biggest barriers to training. The Business NZ Skills and Training survey found that cost was the reason most often given for not providing training (or for providing less than desired amounts of training), being mentioned by 52 per cent of those surveyed. Concerns about cost were also indirectly reflected by respondents who preferred to employ skilled staff rather than train (14 per cent) and those who were worried about the possibility of poaching (19 per cent) (Business NZ & Industry Training Federation, 2003, p.8).

The nature of the cost involved is dependent upon the type of training. There may be direct costs in sending staff on a course, or paying a trainer to come into the work place. The focus of this thesis, entry-level training, also has indirect costs:

There's quite a number of costs involved in taking on an apprentice because, obviously when they're not experienced, they need more supervision, they're not as productive... (Interview with contracts manager, electrical company).

Despite concerns about the cost of training, none of the case study respondents who were employers or in a management role spoke of directly quantifying the costs associated with training: Is there any reason why we should [quantify costs]?... it's just part of my role, really... (Interview with contracts manager, electrical company). The Business NZ Skills

134 This factor was borne out by Australian research into factors affecting the provision of entry-level training, which, while reinforcing the above factors, also discovered that: "if the head of a firm has a trade qualification then the firm is highly likely to conduct apprentice and trainee training" (Ball & Freeland, 2000, p.5).
and Training survey found that many firms reported difficulties in assessing the value of training, yet it would appear from the case study industries that those employers who are committed to training will do so to some degree without needing to see direct or immediate benefits:

We take a different approach [to training] because of our size, we need them [apprentices], to make our company be here in five years time, full of tradesmen... (Interview with director, electrical company).

The paradoxical nature of the attitudes of many businesses and employers to the cost of training were recognised by one respondent, an industry training official:

The biggest difficulty in all of this [paying for training] is actually getting industry to articulate a coherent training requirement, 'cos they don't do it, they don't do it very well... Very few industries really know what they want... there's not many companies that know exactly what they want, and why they want it (Interview with industry training official).

The respondent then contrasted this lack of awareness with the proactive nature of the few companies who had articulated training requirements, and had invested heavily in training. For example:

They've [a security company] actually invested, I think, over three or four years, you know, maybe as much as $10 million... and they have tracked that expenditure really closely: what they spent it on... it's all unit standards based. They know the people they've spent it on, and they can track precisely the return on the investment, they can track return on investment in terms of reduced OSH [occupational health and safety] claims, lower turn-over in staff. They can track in terms of higher qualifications of staff, but more importantly, they can track in terms of profitability, new products, new markets, new clients... something's happened for their dollar. And they're the exceptions, you know, those companies, you know they're not common, companies that know exactly why they're in the business of training (Interview with industry training official).

**Organisation of training** Difficulties (either encountered or perceived) with the organisation and bureaucracy of industry training were another barrier to training identified in the case studies:

You can see that half of the managers and company owners that go to these meetings [of an employers' group] still don't understand how industry training operates... it's amazing that 10 years down the track, there's still a lot of misconception. And it's because it threw the onus... I mean, going from the old apprenticeship system, where, basically you took on an apprentice, he
worked alongside tradesmen, he went to polytechnic, the companies weren't really responsible for, for the outcomes of their training, basically companies would leave it up to polytechnic to sign off the formal learning side of things, and then when it was all thrown onto the companies, a lot of people just got scared off (Interview with manager, engineering industry).

The Business NZ Skills and Training survey found that the lack of availability of suitable training options discouraged 46 per cent of those surveyed from training, with around 20 per cent of respondents seeing "red-tape and a lack of information about training as potential barriers to offering optimal levels of training" (Business NZ & Industry Training Federation, 2003, p.8). As discussed in Chapter Four, part of the rationale for the Modern Apprenticeship initiative was to ease the administrative burden for employers and there is little doubt that part of the high demand for the scheme, as reported by the Industry Training Federation, stems from this.

**Enterprise size** There is a strong relationship between firm size and participation in training, which is of crucial significance given New Zealand's high preponderance of small and medium-sized businesses. For example, OECD research cited by the Department of Labour in 2000 found that in New Zealand, 30 per cent of those working in firms with less than 20 employees received job-related training, compared with 56 per cent of those working in firms with 22 to 99 employees (Department of Labour, 2000). Some of the difficulties that small to medium-sized enterprises (SMEs) face with regards to training have been previewed in the introduction the case study section (p.129). If cost and organisational issues are generally seen as barriers to training, then these factors become especially pertinent for smaller firms: "Financial and opportunity costs are perhaps the most obvious and concrete of barriers to SME engagement with training" (Vaughan, 2002, p.5).

Vaughan (2002) listed several further barriers, both 'material and perceived', to SMEs engaging in formal training, which had been identified in international literature: short-term survival often took precedence over the longer-term planning required for training; employing already-skilled staff was preferred to training; it was felt that formal training was often inflexible and oriented to larger firms; informal training was often preferred over formal; and the benefits of training for SMEs were not always clear. Vaughan (2002) also pointed to a 'legacy of mistrust' of government training policies from SMEs, stemming
from their marginalisation by those policies in favour of larger enterprises (Vaughan, 2002).

The Business NZ Skills and Training survey provided evidence for the general disenchantment of SMEs with formal training. Over 30 per cent of micro-enterprises (employing five or fewer workers) surveyed provided no training. Of those who did train, only 39 per cent provided formal training (where assessment occurred), compared to the average of 43.4 per cent, and the 45.5 per cent of enterprises with over 100 workers who provided formal training. Nearly 70 per cent of micro-enterprises surveyed disagreed or strongly disagreed with the statement that ITO-arranged training effectively contributed to skill development within their enterprise, and over 60 per cent disagreed that ITO training contributed to skill development at the industry level. Modern Apprenticeships was judged equally ineffective (or invisible), with 67 per cent of micro-enterprises feeling that the initiative did not contribute to skill development in their enterprise, and nearly 60 per cent that it did not contribute at industry level (Business NZ & Industry Training Federation, 2003).135

The importance of engaging SMEs in training becomes obvious when Table 9.1 (p.258) is examined. This shows that in 2003, 86 per cent of New Zealand enterprises employed five or less workers and that 42.3 per cent of workers were employed in enterprises with fewer than 20 full-time equivalent workers. The SME sector is thus of too great an importance, and employs too many workers, for it be disenfranchised from industry training. Tailoring training to suit the needs of SMEs is also important for a second reason. The Government has a stated aim of expanding the number of industry trainees to 250,000 by 2007 (Skill New Zealand, 2002a). This will only be achievable if SMEs are able to see the benefits of structured training and are enabled to participate in such training.

135 It must be noted, however, that, first, not all of the enterprises surveyed were in sectors with ITO coverage and that, second, only 15.4 per cent of the firms surveyed were micro-enterprises (see Table 9.1 for a comparison) (Business NZ & Industry Training Federation, 2003).
Table 9.1: New Zealand business enterprises and full-time equivalent (FTE) persons engaged, February 2003 (Statistics New Zealand, 2003e)

<table>
<thead>
<tr>
<th>FTE persons engaged size groups</th>
<th>0-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-49</th>
<th>50-99</th>
<th>100+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprises</td>
<td>253,655</td>
<td>19,286</td>
<td>12,704</td>
<td>6,350</td>
<td>1,610</td>
<td>1,349</td>
<td>294,954</td>
</tr>
<tr>
<td>% of total</td>
<td>86.0%</td>
<td>6.5%</td>
<td>4.3%</td>
<td>2.2%</td>
<td>0.6%</td>
<td>0.4%</td>
<td>100%</td>
</tr>
<tr>
<td>FTEs</td>
<td>347,370</td>
<td>133,440</td>
<td>164,900</td>
<td>185,260</td>
<td>109,030</td>
<td>587,220</td>
<td>1,527,200</td>
</tr>
<tr>
<td>% of total</td>
<td>22.8%</td>
<td>8.7%</td>
<td>10.8%</td>
<td>12.1%</td>
<td>7.1%</td>
<td>38.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Work organisation There are two interrelated aspects to how work organisation may impact upon levels of training. The first aspect is that of technological change and the second that of how the work process is organised. The impact on training of changes to the organisation of work may be considered at two levels. First, ‘new management practices’, such as team-working and total quality management, require training in a very different set of skills than the strictly technical (Smith, Oczkowski, Noble & Macklin, 2004). As my case studies did not include any large firms, where such ‘new management practices’ could be expected to be concentrated, I focus on the second aspect of changes to work organisation, that is, the increasingly permeable nature of the work process of many firms, involving greater use of, for example, contractors and outsourcing.

The impact of technology has already been identified as a ‘double-edged sword’. As discussed in Chapter Two, there is a wide variation in the conceptualisation of technological advance within the post-Fordist debate. At one extreme, it is argued that technology allows the deskilling of the labour process, requiring merely a few highly skilled workers, while the majority must be ‘trained’ to be adequate, compliant and preferably cheerful. At the other extreme, technological advances are viewed as allowing flexibility and innovation, and as requiring a correspondingly flexible and innovative workforce, where all are trained to be multi-skilled, responsive and still preferably cheerful.

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136 Economically significant enterprises, generally defined as enterprises with more than $30,000 annual GST expenses or sales, or enterprises in a GST exempt industry.

137 Full-time equivalent persons engaged (FTE) equals the sum of the full-time employees and working proprietors plus half the part-time employees and working proprietors.
As the case studies have illustrated, however, there may be little correlation between what technology is adopted, how it is used, and how the workforce is trained. For example, in the engineering industry, some firms have bought very clever machinery, which they use to make very well a simple and specific product. The training needs of one such firm were satisfied by recruiting from pre-apprenticeship courses, where a basic knowledge of engineering skills had been taught:

You'll find they employ people just to push buttons. Now we've had people that come off the METS [pre-apprenticeship] course: 'got a job, got a job!'. And I go through the whole thing with them, and the biggest thing [the company] will take on is a traineeship, so you're not getting... A traineeship, I think is probably Level 2, Level 3 at the most... it's just a button-pushing certificate. And they really don't learn the full thing, they just learn that 'this is how I set it up, this is how I put the material in, this is the button I have to press, and oh! - it needs reprogramming, oh, can't do that, call the man...'. So they obviously have technicians there who deal with that sort of thing (Interview with polytechnic tutor, engineering industry).

Other firms have also bought very clever machinery, which they use to make extremely complex products, often requiring staff who are more highly skilled than is attainable through the traditional apprenticeship system. Yet, they use and support this system, cobbling together the higher level training that is required. Thus, the adoption and 'manning' of new technology is complex and contested, and while technological change may be an impetus for training, it may also discourage training, permitting tasks to be simplified or substituting for skilled workers; witness a recent newspaper article: "robots are set to take over milking on New Zealand farms" ("Robots ready to try milking NZ cows," 2004, p.A6).

While the impact of technological change on training levels may be mixed, there is little question that other changes in work organisation have severely restricted the number of training opportunities. The electrical industry case study, described in Chapter Six, showed clearly the impact of the corporatisation and privatisation of government services on work organisation in the electrical industry and upon training within that industry. As was shown

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138 Roberta Hill's study of technological change in the printing industry in the late 1970s and early 1980s, for example, showed how the male printers were able to 'capture' the skills required to operate new technology (Hill & Gidlow, 1988).
in the engineering and agricultural case studies, the impacts of increasing international exposure and competition accompanied intensifying national political changes. While the gutting of the public sector may have been harsher in New Zealand than Australia, both countries have been more fully opened to global competition. Toner (2003b) analysed the changes to work organisation in Australia resulting from increased competition, including the intensification of work; increased outsourcing of functions; and the growth of labour hire (Toner, 2003b). I now discuss the impact on training of these factors in the New Zealand context.

While increased competition may have provided an impetus for training, as suggested above, it may also have the opposite effect. Toner (2003b) cited research by Littler (2003), which showed that, internationally, restructuring and the ‘stripping-out’ of management layers in the name of competitiveness had resulted in the intensification of work, that is, in both increased hours and responsibilities (Littler, 2003). Thus, as discussed in Chapter Two, rather than attaining the flexible specialisation ideal of empowered, multi-skilled workers, the intensification of work resulting from ‘flatter’ management structures may in fact have resulted in a reduced capacity to train. A study of Victorian manufacturers found, for example, that “as a result of reduced employment the intensity of work in the remaining workforce had increased to the point where there was simply no surplus labour capacity to disengage experienced tradespersons from production to train and mentor apprentices” (Toner, 2003b, p.473). This difficulty was also recognised by one of my respondents:

It is more time-consuming than it used to be, and I think ... we’re in a very, very competitive world, we don’t have the spare time or the spare cash to throw at training, and we should be (Interview with manager, engineering industry).

Aside from capacity issues, another respondent spoke of a lack of experience engendered by the fracture of the training ethos; tradespeople had lost the knack of mentoring apprentices because there were very few upon which to practice.

The need for businesses to be ‘lean and mean’ in the new competitive environment also impacts upon training. As was seen in the case studies, training intakes are very sensitive to business conditions. While this was also historically the case, increased competition means there is less ‘fat’ in many firms to take on or carry apprentices when there is uncertainty
about forward work-loads. Two responses to this are the outsourcing of work and the use of temporary labour firms.

There are several variations of 'outsourcing'. First, as government departments and other large organisations moved to operating under commercial models, shrinking their functions to 'core' business, many contracted out service and maintenance tasks previously carried out by workers employed and trained by the organisation. Many electricians served their apprenticeship with hospital boards, and engineers with freezing works, for example. The servicing and maintenance of such enterprises is often now outsourced to small businesses (often set up by ex-workers), which, as SMEs, have all the constraints to offering training discussed above. Second, businesses may contract out certain parts of their production process, allowing them to concentrate on a narrower band of processes, and therefore removing the need to train in a full range of skills, or, in some cases, at all. Third, businesses may bring in specialised staff for one-off or infrequent tasks; several firms sharing the worker's skills, rather than training one of their workers. This is not to say that these are not all sensible responses to a competitive environment, simply that they are not conducive to thorough or on-going training.

In a similar vein, the use of temporary labour firms has become more prevalent in New Zealand. Despite difficulties in exactly enumerating its extent, Burgess, Rasmussen and Connell (2004) traced the growth of agency employment in New Zealand in recent years, arguing that it "provides employers with extensive numeric, functional and labour cost flexibility ... temporary agency employment not only offers flexibility and cost saving potential, it also potentially removes responsibility for the compliance with many employment regulations" (Burgess et al., 2004, p.4). According to an interview I conducted with the director of a temporary employment agency, the current shortages of skilled tradespeople have prompted strong growth in agencies supplying such workers. While it could be assumed that the nature of temporary work would undermine training, this agency has taken a longer-term approach:

The reason that we got into it [training] in the first place was that the decision sort of came from a realisation I had about three or four years ago, when we were running more that 50 carpenters through this business in various temporary roles, and this was just in Christchurch, and we couldn't get any more, and everybody that we spoke to said, 'There's just not enough
carpenters', and I thought, 'Bloody hell, we've got 50 of them here and not one of them is training anyone!' We're actually contributing to this, 'cos if these 50 people were in full-time work, maybe five of them would be training an apprentice. So I thought, well here's us, who are running all these carpenters, and making money from them, and supplying to the building industry, on one hand we're doing that, and on the other hand we're complaining that there aren't enough being trained... And we're part of the problem... at that time I thought, 'Well, we've got to do something about it' (Interview with director, temporary employment agency).

The role of the agency in this apprenticeship scheme is that of a de facto group training company. The company receives no government funding but covers its costs via the charges to the companies who hire the apprentices. Interestingly, the agency contemplated joining the Modern Apprenticeship scheme but ultimately preferred the flexibility of running their own scheme. Nonetheless, some of their apprentices are Modern Apprentices, with co-ordinators in other organisations:

Some of our guys are actually labelled as Modern Apprentices and various Modern Apprenticeships co-ordinators around the town clip the ticket on that, but that doesn't affect the way that we run things... We do have our own income stream off them as well. Where a Modern Apprenticeships co-ordinator is funded to get the guy and to run through the requirements of the programme, we're actually employing them and placing them into work and we're receiving income on the time that they work... They like us [the Modern Apprenticeships co-ordinators], we run a number of apprentices, and they know that we manage them very, very well, and they receive the funding stream (Interview with director, temporary employment agency).

It must be noted that this response from a temporary employment agency is the exception, rather than the rule, and I have been unable to locate any similar schemes. The establishment of the agency's apprenticeship scheme has been driven by its director, who appeared to be motivated by a happy collision of public good and business benefits.

The demand-side: What are the barriers to training at the wider level?

I now discuss barriers to training at the broader institutional and societal level. As was shown in Chapter Four and the case studies, New Zealand's 'transition' to whatever form of somewhat post-Fordist society it may now be considered, was swift and brutal. The harshness of the 'delivery', supervised by midwives Douglas, Richardson et al., left a country bereft of some of the institutional and societal supports that had encouraged and facilitated skill formation. In this sub-section, I first consider the changing nature of the
work force. While demographic and social factors made changes in the profile of the workforce inevitable, the shape and extent of those changes was intensified by the political decisions made in the name of neo-liberal reform. Second, I consider barriers to skill formation in terms of Culpepper’s (1999) analysis of the institutional features of the political economy of a country: the system of industrial relations, the financial system and the predominant organisation of production (Culpepper, 1999).

**Changing shape of the workforce** There is no doubt that many of the changes to the workforce that post-Fordist analysis both predicts and attempts to explain have occurred. Three of the most salient (and inter-related) changes that impact on levels of training are the growth of the service sector, the increase in non-standard work and an increase in workforce ‘flexibility’.

The first change discussed is the growth of the service sector. As with other OECD countries, currently almost two-thirds of New Zealand’s workers are in service industries and about a third are employed in the goods-producing sector (Deeks & Rasmussen, 2002). In the 15 years prior to 2002, three broad service industry groupings added more than 90 per cent of new jobs: wholesale and retail trade, restaurants and hotels; finance, property and business service; and community, social and personal services, while employment in the primary sector and manufacturing remained static or declined (Department of Labour, 2003e). A Department of Labour analysis of occupational trends from 1991 to 2001 further illustrated the growth of service work. Over the decade, the two occupations that contributed the most to employment growth were that of caregiver (over 20,000) and sales assistant (over 16,000). Neither these nor the remainder of the top ten contributors to growth are readily identifiable with any sort of ‘knowledge society’ ideal 139 (Department of Labour, 2002). This is in no way to denigrate the importance of these occupations but the service sector in general does not have a history of structured training and service occupations are often characterised by a high rate of turnover.

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139 They were, in descending order: general clerk, administration manager, technical representative, general manager, teacher aide, financial advisor, cleaner and catering counter assistant. These ten occupations contributed 29 per cent of the total rise in employment from 1991 to 2001 (Department of Labour, 2002).
The second change to the workforce I consider is the rise in ‘non-standard’ and precarious work, such as part-time or casualised work. The rate of both part-time employment (particularly for women) and self-employment in New Zealand has increased steadily from the mid-1980s (Deeks & Rasmussen, 2002; Tucker, 2002). There are clear connections between non-standard work and lower levels of training (Ball & Freeland, 2000; Toner, 2003b; Tucker, 2002). Romeyn (1992) delineated four factors that “actively block the human capital development of part-time and casual work” (Tucker, 2002, p.48). First, the institutional culture of many workplaces views non-standard workers as peripheral and they are therefore not included in training. Second, the organisational concentration of non-standard workers in low status jobs restricts access to training. Third, managers may make attitudinal assumptions about the motivation and commitment of non-standard workers. Finally, there may be structural constraints to accessing training, for example, the timing of courses (Romeyn, 1992; Tucker, 2002).

The third element of workforce change I consider is that of increased flexibility. While the term ‘flexibility’ epitomises post-Fordism, its meaning has same Carrollian breadth as that of ‘skill’ (see Chapter Two, p.24). With regards to the workforce, Deeks and Rasmussen (2002), synthesising several flexibility typologies, described three main forms of workforce flexibility, each of which have a potential influence on skill formation.

The first form of flexibility is contractual, whereby employers seek to expand and contract their workforce as required, reducing the ‘core’ workforce and increasing the use of non-standard or ‘peripheral’ workers (Atkinson, 1984), thus resulting in the constraints to training as described above.

The second form is pay flexibility, whereby employers seek remuneration to be set at the individual or enterprise level, with pay rates related to the employer’s profitability, rather than to what the job is ‘worth’. One major impact on training levels of this tendency is downward pressure on pay rates for entry-level trainees, further reducing the pool of those who may be interested in certain occupations. For example, Simon Carlaw, the Chief Executive of Business New Zealand, while commenting on the removal of the exemption from the Minimum Wage Act for those in training (see Chapter Seven, p.197-198), claimed that “New Zealand has relative price inflexibility in wages, particularly at entry level.
Removing the exemption...will have added to the costs to firms, especially small ones, of
developing skills – restoring it would help get more trainees” (Carlaw, 5 September, 2002, p.1). Although the views expressed by Carlaw are supported by many employers, recent research in New Zealand found that lowering the age of eligibility for the adult minimum wage to 18 and raising the level of that wage, as occurred in 2001, produced “no robust
evidence of adverse effects on youth employment or hours worked” (Hyslop & Stillman, 2004, p.1).

The third form of flexibility in Deeks and Rasmussen’s (2002) taxonomy is that of job
flexibility. This requires such things as broader occupational classifications, an emphasis on
the needs of the enterprise, multi-skilled workers and flexible working hours. Employers’
requirements for this type of flexibility may potentially increase the amount of training
offered yet, as discussed in the previous sub-section, changes in how work is organised
have mixed effects on skill formation. Rather than the ‘knowledge economy optimist’
vision, described in Chapter Two (p.51), of education and training leading to a flexible,
creative and autonomous workforce, it could be cynically argued that “flexibility is defined
as the willingness to conform to neoliberal [sic] economic strategies” (Vallas, 1999, p.87).

In summary, an ‘optimistic’ viewpoint might claim that the changes to the nature of the
workforce described above: the increases in service sector jobs, non-standard work and
workplace flexibility, do not necessarily imply lower levels of training. Schofield’s (2000)
comment on the Australian situation, however, seems to resonate with at least some sectors
of New Zealand’s workforce: “The shift to a high-skill economy is simply not occurring.
Much of the job creation is in low skill areas and the much-desired flexibility is being
achieved not through skill formation but through the rise of non-standard work” (Schofield,
2000, p.10).

**Industrial relations** Few of the changes to the workforce discussed above would have
been possible under New Zealand’s ‘old’ arbitration system (see Chapter Three, pp.57-60).
One of the most salient differences between the ‘old’/Fordist and the ‘new’/post-Fordist
New Zealand is the system of industrial relations. Examining the changes to the union
movement in New Zealand over the past sixty years provides an almost text-book example
of one aspect of Jessop’s analysis of the transformation of late capitalism. According to
Jessop, the accumulation regime of Atlantic Fordism was dependent upon “norms of mass consumption” made possible by “the development of collective bargaining indexed to productivity”, as occurred with the New Zealand arbitration system (Jessop, 2000b, p.67). The Fordist crisis saw production and consumption spin out of balance. In New Zealand, the conservative union movement was as ill-equipped to cope with the changes as were its other social partners. Post-Fordism, requiring flexible production processes and a differentiated and flexible labour market, favours an enterprise-based, flexible union movement. It becomes clearly problematic, however, for a localised and fragmented union movement to support a coherent, nation-wide training strategy.

In the New Zealand context, the union movement, always a stalwart supporter of apprenticeship, as shown in Chapter Three, was decimated by the quintessentially neo-liberal Employment Contracts Act 1991 (see Table 9.2, p.267). While national union bodies played an important role in articulating the need for a highly skilled workforce in the ‘new’/post-Fordist environment, they were marginalised in the industry training strategy developed in the early 1990s (see Chapter Four, p.91 & p.93). There has been a greater union influence on the development of more recent skill formation policies and, as a result of the 2001 Industry Training Review, there is now statutory recognition of the role of unions in industry training organisations.140 While continuing to acknowledge the importance of training and skill development to workers’ empowerment, the under-resourced union movement must deal with a raft of other crucial issues, including its very survival. This is perhaps reflected in the difficulty I experienced in sourcing union respondents.141

140 The Industry Training Amendment Act 2002 charges ITOs with developing “arrangements for the collective representation of employees in the governance of the organisation” (New Zealand Statutes, 2002).
141 I spoke to a national union official early in my research but, despite several attempts, I was unable to interview any local representatives.
(Deeks & Rasmussen, 2002, p.84)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of unions</th>
<th>Membership</th>
<th>Density (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>259</td>
<td>683,006</td>
<td>43.5</td>
</tr>
<tr>
<td>1991</td>
<td>66</td>
<td>514,325</td>
<td>35.4</td>
</tr>
<tr>
<td>1997</td>
<td>80</td>
<td>327,800</td>
<td>18.8</td>
</tr>
<tr>
<td>2003</td>
<td>180</td>
<td>342,000</td>
<td>21.7</td>
</tr>
</tbody>
</table>

The financial system  Despite tentative ‘third way’ tinkering since the election of the Labour-led Government in 1999, New Zealand’s financial system has remained, since the neo-liberal reforms of the mid-1908s, deregulated and market-driven. Lloyd and Payne (2002) characterised the mode of regulation within which this financial system is set as ‘Anglo-Saxon’ capitalism: “deregulated labour markets, cost-based competitive strategies, and short-term pressures on management to satisfy shareholders” (Lloyd & Payne, 2002, p.370). This ‘shareholder’ model of capitalism is “geared to short-term profit maximisation and inimical to long-term investment in people, plant and technology” (Keep & Payne, 2002, p.3). The pervasiveness of the model helps explain the tendency in New Zealand both to conceptualise training as a cost, rather than as an investment, and the intimate connection between the state of the economy and training levels. This contrasts strongly, for example, with the training ethos enabled by the ‘patient capital’ of Germany (see Chapter Two, p.38), where the “preponderance of bank-based finance...accompanied by extensive cross-shareholding and regulation that discouraged hostile takeovers...enabled...companies to take a longer view than companies operating in equity-based systems” (Culpepper, 1999, p.44).

The organisation of production  The barriers to training resulting from changes in work organisation have been discussed above. At a broader level, however, several (mainly British) theorists have argued that one of the main constraints to training is the lack of

142 Union membership and bargaining are heavily concentrated in the public sector (Deeks & Rasmussen, 2002).
143 (Industrial Relations Centre, 2004).
demand for skills from employers (for example, Finegold & Soskice, 1988; Keep, 2002; Lloyd & Payne, 2002). The stifling of demand for skills was characterised by Finegold and Soskice (1988) as the ‘low skills equilibrium’. Thus, rather than striving for high performance workplaces, staffed by highly skilled workers, many firms achieve perfectly acceptable results through “‘low road’ approaches based on cost-minimisation, long working hours and reliance on a low wage, low skill, casualised workforce” (Brown & Lauder, 2001; cited in Keep & Payne, 2002, p.3).

The demand-side: Summary
In this section, I have explored some of the many factors that may constrain employers from training. The title of this section was ‘The demand-side: The ‘too hard’ basket? I trust the reason for my choice of title has become clear as this section has progressed. While increasing or altering the supply of skills may be expensive and difficult, the mechanisms to do this at least sit within what is generally regarded as the role of the state in New Zealand. The constraints to training on the demand-side, however, sit within the micro-economic behaviour of individual firms or within larger institutions, such as the financial system, neither of which are necessarily amenable to state direction or manipulation, given the current political and societal ethos in operation in New Zealand:

Rather than a training problem, what we might be faced with, at least in certain parts of the economy, is a problem with product market strategies, work organisation, job design, and therefore demand for and usage of skill. Creating a high skills economy...requires more and different policy interventions from Government than simply increasing the size of the education system, exhorting employers to do more, and extolling the manifold benefits of investing in training (Keep, 2002, p.468).

9.4 Conclusion
In this chapter, I have used the grounded evidence provided by the historical chapters and the case studies to support an analysis of the wider issues surrounding skill formation in New Zealand. Much of the evidence points to continuities in those issues. The problems in obtaining an appropriately skilled workforce and the low status of the trades and industry in general, for example, are longstanding. It is clear however, that the pressures generated by
the political, economic and social changes associated with the ‘transformation’ of late capitalism have exacerbated existing problems and created some new difficulties.

The rhetoric of the knowledge society has led to increasing expectations of New Zealand’s industry training system. To service the knowledge society, it is no longer sufficient to have a ‘just-enough’ skilled workforce; workers must be multi-skilled, innovative, creative and ‘flexible’. This will be achieved, we are led to believe, by increasing the numbers in training and extending training to all manner of occupations.

Despite the seductive nature of this rhetoric, the reality is that there are many areas where industry training is failing to deliver. In analysing some of the reasons for this, it becomes clear that the blind faith in the reformation of the supply-side of skill formation exhibited for many years has been misplaced. In order to improve skill formation in New Zealand, I argue that it is necessary to move beyond the rhetoric and acknowledge that, first, many firms do not produce or work in ways that conform with any ‘knowledge society’ ideal and that therefore an increasing supply of skilled workers may be of little relevance; those firms are happy with ‘just-enough’ skill. Second, industry training is inescapably set within wider systems of work organisation, finance and industrial relations, all of which impact upon how employers’ demands for skills are structured. Prior to the deregulation and liberalisation of the post-1984 years, the state had a role in work organisation (through its role as an employer), in the financial sector, which was a “bastion of regulation and control” (de Bruin & Pinfold, 2001, p.230), and in industrial relations through the arbitration system. The legacy of neo-liberalism, however, has made these areas virtually ‘out-of-bounds’ for any sort of state activity; the state must content itself with endlessly rejigging supply factors with little control over how that supply is used and even less ability to predict or shape future demand.
CHAPTER TEN

CONCLUSION

This thesis had three broad aims. First, I wanted to continue the story of industry training in New Zealand from the point where my Masters thesis concluded, exploring the impact of the economic, social and political changes of the mid-1980s and 1990s, and, more specifically, of the introduction of the Industry Training Act 1992. Second, I wanted to consider those changes at a theoretical level, examining them within the context of, at one level, the human capital approach and, at a broader level, the post-Fordist debate. Finally, in keeping with the essentially grounded nature of this work, I hoped to be able to offer some thoughts on the last question guiding this research: how can New Zealand overcome some of the barriers to developing an appropriately skilled workforce. Put more evocatively, who, indeed, will get their hands dirty in the ‘knowledge society’?

In the first section of this conclusion, I summarise the main themes that have emerged from the substantive chapters. It is a mark of the continuities associated with skill formation that the themes identified in my Masters thesis - skill levels, the academic/vocational divide and the role of the state in skill formation - remain useful tools for organising this section. In the second section, I place my findings against the theoretical backdrop and assess the adequacy of the ‘fit’ and of the explanatory value of the theoretical framework I employed. Finally, I examine some of the skill formation initiatives that have worked and suggest other approaches that may help New Zealand embrace and sustain appropriate skill formation policies.

10.1 Summary

Skill levels

While one of the stated aims of New Zealand’s industry training strategy is to raise the skill levels of many sectors of the workforce through workplace-based training, this thesis has
concentrated on a narrower ‘slice’ of skill formation, that is, on entry level (or apprenticeship-style) training for the skilled trades. Chapter Three outlined the history of apprenticeship in New Zealand, ending as the ‘Fordist consensus’ that had supported apprenticeship was finally undermined. The neo-liberal ethos of the Fourth Labour Government, and the following National Government, exposed skill formation to a ‘double jeopardy’. At the very time when technological innovation, an emphasis on ‘knowledge’ as the basis for economic growth and greater international competition (sought by those governments both as an incentive and a weeding-out process for New Zealand’s industries) made a skilled workforce desirable, many of the institutional supports for training were ripped away and skill formation was thrown to the market.

Chapter Four examined the impact of the introduction of that voluntaristic, industry-led industry training system. Although the new system was not solely responsible for the ensuing weaknesses and gaps in training and concomitant skill deficits, instead of encouraging counter-cyclic training the ‘choice’ the industry training system offered reinforced the short-term focus of many employers. The introduction in 1999 of the Modern Apprenticeships programme was one response to the alarming decline during the early 1990s of the numbers of new entrants to the skilled trades and industry in general. There is, however, a sense in which the Modern Apprenticeships programme ‘preaches to the converted’ – the industries where the initiative is strongest tend to be the traditional apprenticeship industries. As was seen in both the electrical and engineering case studies, the decline in the number of skilled workers was recognised much earlier at industry level, prompting the development of group training schemes. These schemes, although not a complete answer to skill shortages, at least ensured that training continued and helped to mitigate current skill shortages. While the Modern Apprenticeships programme has been adopted in the electrical and engineering industries, there was a distinct feeling of ‘too little, too late’.

The current skills ‘crisis’, described in each of the case studies and in Chapter Nine, has many facets. In some industries and regions, there is simply a lack of skilled workers. In others, the levels of pay are insufficient to attract trainees or to retain the skilled. The question of adequate remuneration has become more pronounced with low levels of unemployment. In yet other occupations, the shortages have been exacerbated by
exceptional circumstances. The current building boom, fueled by immigration, provides an interesting example of this. There is a serious shortfall in the quantity of builders and workers in allied trades. At the same time, the industry is being asked to lift its standards — the ‘leaky buildings’ issue has prompted calls for improvements in the quality of tradespeople. These factors also intersect with wider government action. Changes in immigration policies could rapidly deflate the boom. Re-regulating the industry may drive up the price of building and thus dampen demand. Clearly, then, the optimum skill level of a country involves much more than simply ensuring an adequate supply of appropriately skilled workers. Those skills are embedded in economic, social and political processes, which are contested at workplace, industry and national levels.

The academic/vocational divide

That this theme, pervasive throughout my Masters thesis, still has a great deal of salience was shown by the unanimous concern expressed by the case study respondents regarding the low status of the trades and industry. Although the disparagement of ‘manual’ or practical work is not a new phenomenon, it was perhaps less influential when only an ‘elite’ continued on to further education. In the ‘knowledge society’, however, the prevailing discourse promulgates an expectation that most young people will be involved in some sort of tertiary education.

As a result, many young people are burdened with high levels of student debt (a more realistic term than the euphemistic ‘student loan’). This indebtedness would be more acceptable if the level of debt correlated with increased earning capacity. Yet, there are oversupplies of graduates in many areas and in other areas, as detailed in the hairdressing case study, the expense of a full-time course may not be justified by an increase in earning capacity. Conversely, industry and the trades, which may offer good incomes, career progression and, in many cases, a route to self-employment, are under subscribed, especially on the part of the more capable. The paradoxical nature of this issue could bear a great deal more research. A study of the construction of occupational images, for example, would provide much more than mere sociological fodder — how young people choose careers and structure their entry to the workforce has direct relevance to developing the skilled workforce required for sustainable economic growth.
The role of the state

While the ultimate decision to train remains with employers, I have aimed to show the influence of state action, both direct and indirect, on employers' decisions. Chapter Three illustrated the strength of the tripartite arrangements that supported the apprenticeship system. Chapter Four traced the impact of the handing over by the state to the market of some of the responsibility for training. It then detailed the subsequent re-engagement with training (via increased funding for industry training and the Modern Apprenticeships scheme) embarked upon by the present Labour-led Government.

The case studies each illustrated a different aspect of the role of the state in industry training. The engineering case study emphasised the indirect influence of the state on levels of training in the industry. The historical section showed how changes in various tariff regimes altered the range of products and, therefore, training requirements. Deregulation through the 1980s impacted severely on the engineering industry and the numbers in training suffered accordingly. While the electrical industry was also affected by such changes, this case study focused on the impact on training of the shrinking of the government sector. The loss of government training positions and the subsequent alterations to the nature of the electrical workforce significantly impaired levels of training in the industry. The hairdressing case study showed how state support for private training establishments impacted, through accreditation of the courses offered and students' eligibility for loans, upon the nature of training in hairdressing, with many trainees choosing full-time study over apprenticeship. The agricultural industry case study also showed how deregulation and increased international competition impacted on training; the latter made it crucial, while the economic hardship brought about by the former made it more difficult to accomplish.

Thus, while the nature of the role that the state has played in skill formation has altered over the time span considered by this thesis - interventionist and prescriptive in the post-war years; somewhat 'hands-off' through the height of the neo-liberal post-1984 decade; and now purportedly 'third way' (facilitative, but at one step removed) - the importance of the role of the state is clear.
10.2 Appropriateness of the theoretical approaches

As discussed in Chapter One, the decision regarding the most useful theoretical framework to analyse this research evolved as the research developed. Initially, as most of the debate in New Zealand relating to skill formation seemed to be couched in terms of improving the country’s stocks of human capital, thus allowing New Zealand to become competitive in the global ‘knowledge economy’, it made sense to examine and critique the human capital approach. My early analysis reinforced the inadequacies of the approach identified in the literature. The market failures endemic to skill formation, for example, the time lag in training, the fear of poaching, free-loading and imperfect information, all impede any sort of rational model of skill acquisition. Even if that were not so, and employers and trainees did all individually rationally invest in training, those individual decisions would not necessarily add up to optimum training for the industry or, of themselves, result in the development of a highly skilled workforce.

The factors that influence workforce development seemed to be better understood through the use of a broader lens, as provided by the human capability framework. This framework allowed labour market opportunity influences, or demand factors, such as the international environment, technology, the business and regulatory environment, and finance and capital to be taken into account. As I examined the international literature and began my field work, it became clear that the influences on the demand for skills discussed above were crucial to understanding how skill formation ‘worked’ in New Zealand. Therefore, I required a theoretical approach that encompassed analysis at the point of production, at industry level, and at a national and societal level. The post-Fordist debate certainly provided the breadth I needed, but the range of analysis under that umbrella, and the contradictory nature of much of it, often obfuscated rather than clarified. Thus, I chose to sharpen my analytical tool by adopting the regulation approach and, within that approach, Jessop’s spatially-located characterisation of the transformation of late capitalism; the movement from the ‘Keynesian welfare nation state’ mode of regulation to the ‘Schumpeterian workfare post-national regime’.
The use of Jessop’s analysis allowed a multi-layered examination of skill formation in New Zealand. The changes in skill formation brought about by complex and interwoven technological, economic, political and social changes could be separated out for analysis. New Zealand in the post-war years exhibited many of the characteristics of Fordism. The apprenticeship system was underpinned by a corporatist consensus, the cost of training was implicitly absorbed between employers, apprentices and the state, and the breadth and depth of skills delivered reflected an interesting (if at times unresponsive) mixture of the requirements of small, versatile workshops and the ‘mass-production’ of narrow product ranges or large (often public sector) workshops.

The debate surrounding New Zealand’s reaction (or lack thereof) to the Fordist crisis throughout the 1970s and early 1980s is ongoing, as is an assessment of the enthusiastically neo-liberal (over-) reaction to the legacy of the purportedly ‘fortress’ years. What is certain is that if Rip Van Winkle had gone to sleep in New Zealand in 1980 and woken in 2000, he would be very, very surprised. The extent to which the changes he would observe could be explained by using post-Fordist analysis is also debatable. Nonetheless, if it is accepted, as the regulationists claim, that capitalism tends to “coalesce and stabilize” around an (albeit) “partial and temporary” mode of development, then post-Fordist theory does help to understand some of the aspects of the regime currently in evidence in New Zealand (Amin, 1994, p.7).

There is, for example, a greater emphasis on ‘flexible’ production. In the best cases, technological advances and more fluid industrial relations do allow innovative production and work processes, although in many other cases that flexibility is of the ‘nasty’ variety, dependent upon cheapening and casualising labour. Growth is powered in some sectors of the economy by international competition requiring ‘knowledge’ and innovation, and adding value within New Zealand, yet there are other areas where adequate profits are made with a dispensable workforce easily skilled in a narrow range of processes. This divergence translates to wide-reaching differences in attitudes to skill formation, with large variations in the level of commitment at both employer and industry level.

The increasing predominance of the contractual model, both in the workplace and as a state mechanism, also impacts on skill formation. Much of the ethos that supports skill formation
is not explainable by, nor reducible to, the 'inputs' or 'outcomes' favoured by a contractual mode of operation. At the workplace level, a contract deals with the task at hand and it is obviously difficult to specify that training shall occur or should have occurred. At the state level, the moral obligation to train, and the informal networks that support that obligation, are not necessarily amenable to articulation in a contractual manner.

Lloyd and Payne's (2002) characterisation of theoretical views of skill formation in the knowledge economy - optimists, pessimists and sceptics (see Chapter Two, pp.50-52) captured the range and paradoxical nature of much of what this thesis discusses. There have been wholesale economic, political and social changes in New Zealand that have translated into distinct differences in the way work is organised, and in how people are skilled for that work. Those changes, however, do not represent a rupture in the course of capitalism; the continuities in the debates surrounding skill formation are evidence that much remains the same.

10.3 How can New Zealand overcome some of the barriers to developing a skilled workforce?

In this section I offer some thoughts on what a 'good' industry training system should deliver, what factors currently contribute to such provision and what steps could be taken to move further towards that ideal in New Zealand. An ideal industry training system would deliver an adequate (if not optimal) and timely supply of appropriately skilled workers. Those workers would have in place the building blocks to acquire further skills throughout their careers. The system would provide transition routes for young people and could be used to increase equity in the New Zealand workforce. My vision is of a society in which literate and well-paid workers engage in work that is meaningful and dignified, and which offers a degree of autonomy. The current rhetoric focuses on education and training as a means of securing economic growth, yet educating and training workers and employers, in both skilled and unskilled jobs, could contribute to achieving the wider benefits desired.
The workplace

Some of the main barriers to training at the workplace level identified in this research were cost, the organisation of training and the prevalence of small to medium-sized businesses in New Zealand. It is easy to say that the fact that training is considered a cost, rather than an investment, is reflective of the short-term focus of many employers; a 'just-enough' skill mentality. It must be recognised, however, that many New Zealand business are small, tenuous and extremely sensitive to compliance costs. My case study data support this observation. If the aim is to encourage and extend training, it is necessary to support employers rather than to chastise them. Two workable solutions to many of the barriers to training in the workplace are group training companies and the Modern Apprenticeships programme. Both initiatives take the direct responsibility for training away from the employer and assist with the bureaucracy of training, thus indirectly also providing cost savings.

The group training model could successfully be extended to a wider range of industries and would be especially suitable in industries with a large proportion of small businesses. An important component of the success of the group training companies examined in the case studies appeared to be that they were 'organic' – grown by each industry in response to a perceived need and staffed by people with credibility and strong links to industry networks. This may not, therefore, be an area suitable for direct government intervention; nevertheless, seeding finance and publicity could encourage the formation of similar initiatives.

The worth (along with some concerns) of the Modern Apprenticeships programme has already been canvassed in Chapter Four. There is little doubt, however, that the role of the co-ordinator in mentoring the apprentice and supporting the employer is highly beneficial. The size and complexity of many training manuals alone is sufficient to discourage some employers from training; to have access to a co-ordinator who deals with the 'paperwork' of training is invaluable. Although there has been no official research as yet, anecdotal evidence would suggest that the completion rates for Modern Apprentices in some industries may be significantly higher than for 'ordinary' apprentices. If this proves to be so, there will be a good case for extending the co-ordinator function to all industry trainees.
who are completing Level Four National Certificates. This would, of course, be expensive, but the long term returns from better retention and completion rates would more than compensate.

Industry level

In this thesis, I have generally been scathing about an ‘industry-led’ training system and, indeed, the results of 12 years of such a system leave a great deal to be desired. Yet, in many ways it is crucial that ‘industry’ takes charge of its skill formation. It is those who work in an industry who have the historical background, the current knowledge and the best idea of the impact of future trends. What is required, however, is a much more inclusive and robust notion of what constitutes ‘industry’. At the moment, those who speak for ‘industry’ with regards to skill formation often only represent employers, and usually merely a sub-section of employers at that. While many of those representatives are deeply committed to training, they often battle indifference to and ignorance about training from many of the constitutive members of their industry. The degree to which an associative ethic could be imposed on industry is a moot point. There is provision in the Industry Training Amendment Act 2002 for the imposition of a training levy on members of an industry if 60 per cent of the members agree. It is too early to judge the impact of this provision, but if such a levy was acceptable to those in the industry, it could assist in overcoming free-riding and the fear of poaching that discourages many employers from training.

Of course, a greater involvement from more employers is only one aspect of strengthening the notion of ‘industry’. There is no industry without those who work in it; workers power the industry and are the repositories of skill within that industry. To talk of skill formation without considering the views of those who ‘do’ the skill is to greatly enfeeble that discussion. The traditional voice of those workers, the union movement, is slowly making itself heard at the discussion table again, but its position and strength are tenuous. Aside from rebuilding capacity after the onslaught of the Employment Contracts Act 1991, the union movement also must counter a new individualism engendered by twenty years of neo-liberal dominance and a growing cohort of workers for whom unionism is something they (may have) heard about at school. Nevertheless, if industry-led skill formation is to be
encompassing and sustainable, it must include the voice and aspect of those who work in
the industry.

Regional level
Some of the most interesting skill formation initiatives noted in this research have occurred
at industry or regional level (for two examples, see Chapter Nine, pp.239-240 & p.261-
262). Other examples, not discussed in this thesis, of training initiatives organised by local
bodies, charitable or community organisations, and local or regional industry bodies also
exist. Such organisations source a variety of funding options and form partnerships with a
multitude of agencies, both government and non-government. Jessop’s notion of the post-
national is clearly in evidence (see Chapter Two, p.32): there is “widespread concern to
find creative ‘post-national’ solutions to... problems rather than relying primarily on
national institutions and networks” (Jessop, 2000a, p.2). Optimistically, this may mean
fluid, multi-levelled entities that form to meet a need, but on the negative side it may
translate to cobbled-together groups that must constantly scrabble for a share of hotly
contested funding pools. Nevertheless, as New Zealand is not a homogenous society, one
key to ‘best-fit’ skill formation may lie in regional initiatives that take account of
geographic and demographic specificities.

National level
Despite the devolution of some of the responsibility for skill formation to regional or
industry organisations, or the ‘market’, the state remains the main player in the funding of
industry training, and in the delivery of the off-job component of that training.144 Through
its fiscal policies, then, the state can shape and direct the quality, quantity and range of that
training, and attempt to influence social and equity outcomes. The current government
claims a strong commitment to industry training and funding has steadily increased.
Pledged future funding, however, does not match the government’s expectation for
increases in the numbers of industry trainees (the government’s target is 250,000 people in
industry training in 2007) (Industry Training Federation, 2004b). Funding for industry
training and Modern Apprenticeships is also effectively capped, whereas funding for other

144 For a detailed history of the funding of industry training, see Green, Hipkins, Williams & Murdoch (2003).
tertiary options has been based upon the numbers participating. One means to improve the quality and quantity of industry training would thus be to simply increase and extend funding. Given the success of the New Apprenticeship programme in Australia, there is also a strong case for the targeting of funding, via incentives, to both achieve equity goals and to help alleviate particular skill shortages (see Footnotes 16 and 43).

Societal level

Direct government action through funding measures, however, is only part of the answer to improving skill formation in New Zealand. The government sends messages regarding the worth of industry and trades training through broader policies, such as the funding regime for the education sector as a whole, and through the discourses that it chooses to frame the choice of those policies and their implementation. These discourses are both shaped by and reinforcing of deep-seated attitudes within New Zealand society, which are often disparaging of the ‘hands-on’ and the vocational. Improving the image of the trades and industry in general, through education and publicity, would greatly aid sensible and realistic career choices by young people.

10.4 Conclusion

I end this thesis by, first, noting some areas that might benefit from further research and, second, by examining some of the broader understandings that I have gained from the research process and findings.

Skill formation in New Zealand is woefully under-researched. Many of the theoretical understandings that underpin this work were gleaned from Britain, where there is a strong tradition of critical analysis of skill formation, backed up by many mid-range and micro-level research projects. Australia has a plethora of institutions where every aspect of skill formation is examined. Although the focus there has been on researching grounded and practical issues, there has recently been an increasing emphasis on exploring the wider

145 In 2003, for example, industry training received $90 million, while community education received $105 million, an increase of $92 million from 2000. Community education programmes were funded at $5302 per EFTS and education providers received $8700 per EFTS for non-degree trade training. Industry trainees, however, were funded at an average of $3000 per EFTS (Industry Training Federation, 2004d).
picture of skill formation. The concept of ‘skill ecosystems’: clusters of varying levels of competencies existing in a particular region or industry, for example, suggests a different and possibly fruitful way of examining some skill-related issues (Buchanan et al., 2001).

If New Zealand is to do more than pay lip-service towards moving towards a ‘high-skill’ society, then there is a great need for a thoughtful and coherent research programme. At the micro-level, there is, for example, a need to understand what motivates and encourages employers to engage in training. At the mid-range, research at the level of the industry could help discover how demand for skill is structured and altered, and how that demand intersects with the skills that are taught in the formal education sector. At the macro-level, as this research has attempted to illustrate, skill formation is inextricably set within wider institutional and societal attitudes and expectations, which research could help uncover and make explicit.

As a society, New Zealand needs to have informed debate about its goals and the best means to achieve those goals. One of the main things that I have learnt from carrying out this research is the power of rhetoric. New Zealand appears to have jumped unquestioningly onto the ‘knowledge society’ band-wagon and now policies are often formed as if New Zealand is a ‘knowledge society’ (whatever that may mean), and as if being a ‘knowledge society’ is all that matters. Yet, the current emphasis on ‘knowledge’ and ‘innovation’ marginalises the concrete, the practical and the established:

Mostly forgotten in present-day paeans to high-tech and high skill, of information age and ‘symbolic analysts’ are the great swaths of ordinary jobs held by ordinary people without much claim to modernist fame (Walker, 1999, p.269).

It is these ‘ordinary people’ who get their hands dirty in the knowledge society and the jobs which they do that underpin that society. An inclusive, well-funded and robust industry training system is essential for both sustainable economic growth and for empowering those workers who contribute to that growth.


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APPENDICES
Appendix I: Information letter

Dear ..............................................

Information Sheet:
Lincoln University, Human Sciences Division.

You are invited to participate as a respondent in a project entitled “Industry Training in New Zealand”. Participation in this project is entirely voluntary. The aim of this project is to examine and critically assess New Zealand’s industry training provision and policies.

Your participation in this project will involve one interview of approximately one to two hours in length. In the course of this interview, you do not have to answer any questions with which you feel uncomfortable.

The results of this project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation. The identity of participants will not be made public without their consent. To ensure anonymity and confidentiality, participants will not be identified by name, and all data will be stored in a locked cabinet.

In the presentation of research findings, names will not be used, and any details of participants’ roles that may make identification likely will either be avoided or altered. If there is any question of possible identification, specific permission to use the relevant material will be sought.

This project is being carried out by Nicky Murray, Ph 325 2778 (email murran@lincoln.ac.nz). The supervisors for this project are Bob Gidlow, Ph 325 2811, extn: 8766 (email gidlow@lincoln.ac.nz) and Alison Kuiper, Ph 325 2811, extn: 8963 (email kuiper@lincoln.ac.nz). They will be pleased to discuss any concerns you have about participation in the project.

The project has been reviewed and approved by the Lincoln University Human Ethics Committee.

Yours sincerely

Nicky Murray
Postgraduate Student
Human Sciences Division
Lincoln University
## Appendix II: Interview schedule

<table>
<thead>
<tr>
<th>Industry body</th>
<th>Electrical</th>
<th>Engineering</th>
<th>Hairdressing</th>
<th>Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry training organisation</strong></td>
<td>Ecanz official</td>
<td>Industry Advisory Group</td>
<td>Hairdressing ITO national official</td>
<td>Agriculture ITO regional official</td>
</tr>
<tr>
<td>Industry Training Federation official</td>
<td>Electrotechnology ITO regional official</td>
<td></td>
<td>Hairdressing ITO regional official</td>
<td></td>
</tr>
<tr>
<td><strong>Union</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NZCTU official</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Provider</strong></td>
<td></td>
<td>Polytechnic tutor</td>
<td></td>
<td>Observation</td>
</tr>
<tr>
<td>Provider staff association official</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Employer/Management</strong></td>
<td>Contracts manager</td>
<td>Works manager</td>
<td>Works manager Factory manager Chief engineer (retired)</td>
<td>Dairy farmer</td>
</tr>
<tr>
<td>Contracts manager</td>
<td>Company director</td>
<td>Company director</td>
<td>Company director</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Worker</strong></td>
<td>Fitter and turner</td>
<td>Hairdresser</td>
<td></td>
<td></td>
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<tr>
<td><strong>Apprentice</strong></td>
<td></td>
<td></td>
<td>Two apprentices</td>
<td>Trainee</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group Training Company</strong></td>
<td>Training co-ordinator</td>
<td>Training co-ordinator</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Modern Apprenticeships</strong></td>
<td>Modern Apprenticeships co-ordinator (group training company)</td>
<td>Modern Apprenticeships co-ordinator (polytechnic)</td>
<td>Modern Apprenticeships co-ordinator (group training company)</td>
<td>Modern Apprenticeships co-ordinator (ITO)</td>
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<tr>
<td><strong>Government</strong></td>
<td>Department of Labour official</td>
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<tr>
<td><strong>Transition</strong></td>
<td>Business-education partnership facilitator</td>
<td></td>
<td>Careers advisor: single sex school</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Careers advisors: co-ed school (Gateway)</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Director of temporary employment agency</td>
<td></td>
<td>Careers advisor: co-ed school</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Careers advisor: co-ed school (Gateway)</td>
<td></td>
</tr>
</tbody>
</table>

**NB:** Some respondents were interviewed in more than one capacity.
Appendix III: Question guide

General interviews
What is your role/position?
What is your interest in/knowledge of industry training?
Can you please explain briefly your understanding of the current industry training strategy?
Which aspects of this strategy do you think work well?
Which aspects of this strategy can you see problems with?
What are your/your organisation’s relationship(s) with government agencies/industry training organisations/training providers/employers/unions/employees/trainees etc?
How do you think that industry training is best funded?
What do you think is the best way to deliver the practical aspects needed for industry training?
What do you think is the best way to deliver the theoretical aspects needed for industry training?
Where do you think the responsibility lies for the delivery of each of those components?
What is your opinion of the on-job/off-job assessment of industry trainees?
Do you believe that there is a shortage of skilled workers in your area/in general?
Where do you think the responsibility lies for achieving the correct number of skilled workers?
Do you think that literacy/numeracy skills should be included in industry training?
Do you think that industry training should be used for ‘positive action’ initiatives, for example, for increasing the number of women in the skilled trades, or for attempting to reduce unemployment in some regions?
Are you familiar with the old ‘apprenticeship’ system?
How would you compare the current system with the old ‘apprenticeship’ system?

Apprentice interviews
What made you decide to become a .........................?
How did you find out about it?
How did you find your employer?
What steps did you go through to become an apprentice?
What do you enjoy about your job?
Are there any aspects you don’t enjoy?
What sort of off-job training do you do, and where?
How is your on-job assessment carried out?
What do your parents think of your job?
What do your friends think of your job?
What are your plans for the future?
Any other comments?

Careers advisor interviews
What is the general set-up of the careers advice structure in your school?
Does the school offer credits on the national qualifications framework? In which areas?
What do you understand by ‘industry training’?
In what ways are workplace-based training opportunities presented in your school?
Do you have any relationships with industry training organisations or-Skill New Zealand?
Do you have any direct relationships with ‘industry’? If so, of what nature? How effective are they?
Are you aware of the Gateway programme or Modern Apprenticeships?
How do you think students perceive: ‘industry training’?
‘apprenticeship’?
‘workplace-based training’?
How do you think parents perceive: ‘industry training’?
‘apprenticeship’?
‘workplace-based training’?
Any other thoughts?