



NSW Board of Vocational
Education and Training

BEYOND FLEXIBILITY: SKILLS AND WORK IN THE FUTURE

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BEYOND FLEXIBILITY: SKILLS AND WORK IN THE FUTURE



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EXECUTIVE SUMMARY

ACIRRT and the Research Centre for Vocational Education and Training (UTS) were commissioned by the NSW BVET to produce a report on the way in which work and skills are linked, how this linkage is likely to change and the options available for policy-makers to shape the linkage between work and skills in the future.

Far-reaching reforms on work and skill policy have occurred over the past fifteen years in a bid to improve international competitiveness, develop a 'high skill economy' and reduce social inequities. The 'harvester man' policy model (award wage-setting linked to skill, focus on permanent full-time employment, a TAFE system geared to apprenticeships/trade training) has been replaced with a 'flexibility' model (enterprise bargaining, a 'demand-driven' training system through the development of a national 'training market').

Whilst there have been real achievements arising from these policy reforms (eg greater numbers of individuals with portable, nationally recognised qualifications) there are now multiplying problems. For instance, skill shortages persist and workplace parties claim the training system is confusing and difficult to access.

Labour market and workplace restructuring has also shifted the focus away from the type of employment (full-time, permanent to casual, contractor and part-time) and business organisation (stand-alone enterprises to networks of production, supply chains and outsourcing arrangements) at the centre of the 'harvester' and 'flexibility' policy models.

The preoccupation with 'high' and 'low' skill obscures a shift in employer practices in the development and deployment of skill. Skill has three 'logics' – a cognitive dimension (eg literacy, numeracy, general educational competence), a technical dimension (eg trade/professional skills) and a behavioural dimension (eg inter-personal skills). Employer investment and interest in behavioural competencies has increased in relative importance compared to their interest and investment in cognitive and technical competencies.

The preoccupation with high and low-skill economies also diverts attention away from the variety of 'skill ecosystems' (ie clusters of high, intermediate and low-level competencies in a particular region or industry). Moreover, whilst 'high skill ecosystems' (eg IT) are important as engines of growth and development, it is now clear they will not generate mass employment in the way of some intermediate and routine skill ecosystems (eg cleaning) whilst other ecosystems are important for the social value of their work (eg family support services). The challenge for policy-makers is to move beyond the impossible dream of a 'high skill economy' to combine a diverse range of policy instruments across a wide range of portfolios to manage a diverse bundle of skill ecosystems.

Policy objectives should be clearly defined to distinguish between promoting 'work' as opposed to promoting 'labour'. Given that many people are unlikely to find jobs that extend them (ie many will end up undertaking labour and not work) policy needs to promote flourishing beyond the labour market by career breaks, rethinking care work and decent rates of pay and hours of work.

Policy on work and skills needs to be repositioned. While skills are not 'the answer', there can be 'no answer' without skills. It is now clear that too much was expected of policy reforms to work and skills. This does not mean policy should downgrade skills and work issues but rather skills and work initiatives need to be more closely integrated into the wider policy mix.

Effective new policy directions therefore require more than just another 'program'. Policy renewal is dependent on developing fresh perspectives in both policy content (its assumptions, directions and instruments) and policy context (the policy-making system through which options are created, considered and chosen). Creating a dynamic policy context through which innovation can occur is a precondition for policy change. This requires opening up the policy system to a wider range of informants, re-conceiving clients in a fresh way (as networks, supply chains & regions instead of simply as 'individuals' and 'industry) and accommodating the 'cross-cutting' character of policy initiatives on work and skill by developing a 'whole of government' approach.



Recommendations

- 1: That the NSW Government give serious consideration to repositioning policy on work and skills so that it becomes the defining feature of the overall mix of public policies used to govern the state.
- 2: That BVET audit how current government policies and practices impact on skill formation, skill use and the notion of work defined as something more than being obliged to labour.
- 3: That BVET sponsor a new 'work, skills and innovation initiative' to (a) document existing successful initiatives and company successes and (b) foster the development and evolution of a number of new demonstration ecosystems.
- 4: BVET should consider ways of enlarging the network of agents involved in developing and implementing policy concerning skill formation and deployment. As a minimum BVET should consider an annual meeting facilitating communication between all agents involved in the development and deployment of skill.
- 5: That BVET investigate other key categories for monitoring and distributing their funding. Special attention needs to be given to considering the potential for assisting/promoting funding for skill ecosystems and a comprehensive system of career breaks.

ABOUT THIS PROJECT

In late 1999 the NSW Board of Vocational Education and Training (BVET) called for tenders from researchers who were interested in studying the question of the Vocational Education and Training (VET) and the changing nature of work. In February 2000 a team of researchers from the Australian Centre for Industrial Relations Research and Training (ACIRRT) at the University of Sydney and the Research Centre for Vocational Education and Training (RCVET) at the University of Technology, Sydney, were selected to undertake the project.

The project team was multi-disciplinary. It had expertise in education, industrial relations, work/organisation studies, political economy and policy studies. Further details of the research team are provided in Appendix 1.

The project began in March 2000 and was completed in July 2001. Eleven project working papers were prepared during that period. This paper integrates the key insights arising from the project. Any readers who are interested in more details about the issues raised in this paper are encouraged to examine this more detailed material. It will be available on the DET, ACIRRT and RCVET websites after October 2001.

The high level of collaboration amongst the research team was a notable feature of the project. As it progressed drafts of material prepared by each member were 'workshopped.' This helped to build cohesion amongst us and integrate our analytical approach. It also ensured that the end result of the project was far more than 'the sum of the parts'. BVET project staff, Leslie Loble and Robert Quirk, were also active participants in these deliberations, and they were closely involved in all phases of the project.

The researchers had complete autonomy in finalising the research design, collecting the data and preparing the final analysis. Leslie and Robert's involvement, however, has been crucial in helping clarify what issues were of priority concern to policy makers in NSW. They also made important contributions to debates about research design and data collection. Their insights about the policy implications of our findings were particularly valuable.

Several 'consultation' workshops were held as this report was being finalised. These involved presentations by the research team of our initial findings to BVET and a large number of SES officers of the NSW Department of Education and Training. This enabled the research team to refine its argument and policy recommendations in light of the issues raised at these sessions. The operation of this project provides an excellent example of how breaking with the sterile 'purchaser-provider' model of undertaking contract research can yield material that is both analytically robust and relevant to policy.

It is important to also note the contribution of other individuals who have helped at various stages of this project. They have included: all key informants interviewed in Stage 1, all personnel involved in the industry case studies and life histories, Bob Gregory (especially during the initial project scoping stage), Roger Morris (who provided a useful overview history of the VET/labour market nexus in Australia), Tom Dumbrell (especially for advice on using and interpreting ABS statistics), Marilyn Bryce (for assistance in sourcing references) and Deanna Byrne (for administrative/formatting assistance).

John Buchanan
Project Leader
October 2001



INTRODUCTION: Frustration with the past, unease about the future

Just over a decade ago, policy concerning work and skill formation issues occupied a central position in government, union and employer association initiatives directed at improving international competitiveness and social equity.¹ There was optimistic talk of a 'workplace reform lead recovery' and a high skill future based on modernised industrial relations and skill formation systems. In the area of skill formation, a comprehensive reform agenda promised major change. Allied reforms occurred in policies about work. 'Award restructuring' accompanied the 'National Training Reform Agenda' and aimed to achieve greater efficiency for industry and more rewarding and secure jobs for employees. The shift in policy focus to creating a national training market was accompanied by the adoption of enterprise bargaining and the promotion of 'best practice' in industrial relations and wages policy. These too promised a more productive and fairer labour market in the future.

We now face a very different situation. After fifteen years of 'reform' many of the problems identified at the outset of the process seem as entrenched and as intractable as ever. In a number of cases, problems associated with international competitiveness and social inequality appear to have worsened. If there is a dominant mood concerning the issues of work and skills today, it is one of frustration with what has not been achieved and unease about what is to come. Policy on work and skills is, consequently, in a conundrum. There is little interest in returning to the 'rigidities' of the past. Equally, there is widespread and growing frustration with the problems of 'flexibility'. How are we to make sense of this? And what, if anything, can we do about it?

This was the context in which the NSW Board of Vocational Education and Training (BVET) commissioned this project. The Board was interested in getting informed answers to two broad questions:

- how should the vocational education and training (VET) system change in light of the changing nature of work?;
- what should we do today to promote the kind of work and VET system we want in the future?²

These questions meant that the scope of project was potentially unlimited. After extensive negotiations the research team and BVET project staff agreed the project should address three more precise questions:

- how are work and skills linked today?;
- how is this linkage likely to change?;
- what options are open to BVET, DET and the NSW Government to shape this connection in the future?

The shift in concern from VET to skills is substantive not semantic. We wanted to get beyond the preoccupation with formal institutional and funding issues that drives much policy debate about skill formation today. The focus on the nexus between work and skills was also deliberate. We have not regarded skills issues as matters that merely accommodate wider economic and labour market changes.

A three stage research strategy was adopted to address these questions. The first stage involved extensive desk-based work which reviewed relevant literatures, statistics, history and key informants ideas about skills and the future of work. The second stage involved undertaking six industry case studies to examine the changing nexus between work and skill. The third stage involved interviewing 12 individuals who worked in the industries examined.

This report synthesises the key findings arising from all stages of the research³. It is structured as follows. The next section provides an overview of the policy context. In this we highlight both the strengths and multiplying weaknesses of current policy settings. The section, The Project: Generating new insights into the current situation, then summarises how we generated information to better understand the nature of current challenges and options for policy concerning work and skills in the future. The next section provides an integrated account of the key findings arising from all stages of the project. We then outline recommendations for action in the following section, Where Next: Recommendations for the future. The report concludes by returning to consider the questions that informed the analysis. Two fundamental findings arise from this project. First, while skills will not be 'the answer' to problems of work in the future, there can be 'no answer' without better development and deployment of skill. Second, more choices are open to policy makers than is commonly realised. Moving beyond the current 'flexibility' mindset is important if real innovation is to occur in the realms of skill formation and work in the future.

¹ See, for example, Dawkins (1987), Deveson (1990), ACTU/TDC (1987) & Metal Trades Industry Association (1986).

² The original tender specifications ran for over 5 pages. Copies of these are available on request from ACIRRT.

³ Appendix 2 lists the key publications arising from the project.

THE POLICY CONTEXT: Recent achievements but multiplying problems

Achievements of the Recent Past Have Been Real... but Frustration is Still Widespread

Since the mid 1980s, policy on work has been dominated by a concern to increase 'labour market flexibility.' The reforms have aimed to achieve greater responsiveness to changing economic and social circumstances through a two-stage reform process involving award restructuring and then enterprise bargaining. Award restructuring primarily involved modernising:

- job structures to facilitate multi-skilling and labour flexibility;
- relative pay structures to ensure greater fairness and therefore stability in wage setting;
- minimum pay structures to 'ensure that the restructuring is on an equitable basis' (ACTU 1989: 2);
- classification structures to create skill-based career paths and incentives for skill acquisition (For a good overview of award restructuring see MacDonald Rimmer, 1989).

Allied to award restructuring was the 'National Training Reform Agenda' (NTRA). Richard Curtain (1994: 44) summarised the key elements of this agenda as follows:

- the development of competency standards by industry and associated curriculum development to reflect competency outcomes;
- development of an Australian Standards Framework for vocational education and training credentials;
- establishment of a National Training Board (NTB);
- agreement on a National Framework for the Recognition of Training (NFROT);
- a number of reports on issues related to the training implications of industrial relations changes, young people's participation in post-compulsory education and training, and the need for curricula to take into account a number of general or core competencies;
- establishment of the Australian Vocational Certificate Training System (AVCTS) to provide a number of pathways in the transition from school to work;
- establishment of the Australian National Training Authority (ANTA) to oversee the allocation of government resources to the publicly funded Technical and Further Education (TAFE) sector.

Award restructuring and the NTRA, developed as part of the Accord between a federal Labor Government and the ACTU, was designed to push Australia towards a high-skill, high-wage economy.

However, key employer groups, notably the Business Council of Australia representing the 80 largest firms in Australia, preferred a different style of reform focussed on enterprise flexibility. Simultaneously, pressure for wage increases mounted amongst leading sectors of Australia's most powerful unions as the boom of the 1980s reached its peak. As the pressure for wage increases not tied to more award restructuring rose, the pressure to decentralise wage bargaining became irresistible. Traditionally such pressures resulted in 'wage breakouts' by these unions with big settlements achieved by wage leaders flowing through a coordinated labour market to the rest of the workforce by means of the arbitral machinery. The round of wage bargaining that followed in the 1990s occurred in a radically changed industrial relations environment. Decentralised bargaining took the form recommended by employers – ie on an enterprise by enterprise basis – and the settlements of leading sectors were explicitly quarantined from the rest of the wage system (Briggs, 2001).

Issues now receiving greater policy recognition/attention concerning work include:

- greater capacity for wage levels to vary between establishments;
- enhancing enterprise flexibility in areas such as working hours;
- issues associated with balancing work and family life;
- increased protection from arbitrary treatment at work – including protection against unfair dismissal, rights to be treated on merit, freedom from discrimination based on personal traits from gender, race or sexual preference.

Similarly, in the early 1990s, skill formation policy moved away from the NTRA to what was described at the time as a 'demand' based system. The key objective of this shift in policy was to establish a national training market that responded to user (especially employer) needs.

Consequently, the original NTRA was never fully implemented. The NTRA aimed to open up training arrangements to ensure a wider range of skills were available to all workers – not just tradespeople, technicians and professionals. However, while the industrial parties successfully broke the unquestioned ascendancy of trade and professional visions of training (at least at the level of policy legitimacy), their alternative – a vision of 'lifelong learning' – failed to materialise. Instead, the skill formation

reform process mutated into something quite different. The dominant concerns gradually became 'user choice' and 'freeing up' allocation of public training funds previously monopolised by technical and further education (TAFEs). Since 1996 key initiatives associated with the development of a national training market have included the development of a new National Training Framework based on industry training packages and the Australian Recognition Framework for providers of education and training services – public and private (ACIRRT 1997: 25-26). These arrangements have purportedly shifted power in the allocation of public training funds away from public sector TAFE systems into the hands of those using training services, especially employers⁴.

These reforms have resulted in some substantial achievements including:

- increased flexibility and availability of structured training, primarily supplied by generating a larger range of providers in addition to TAFE, and freeing up approaches to technical and further education within the publicly funded training system;
- greater numbers of individuals with portable, nationally recognised qualifications;
- greater responsiveness of the VET providers to the requirements of employers and industry bodies.

Nevertheless serious challenges, if not problems, remain. Indeed, there are growing reports of frustration amongst employers, workers and students with the current arrangements concerning work and skill formation. Typical indicators of this frustration include:

- falling levels of satisfaction with work and family balance, (Morehead et al, 1997: 289), rising numbers of those working very long hours (ie 49 hours or more) who wish to work fewer hours – notably concentrated amongst higher-paid groups such as managers and professionals and not primarily blue-collar workers who are usually paid for extra hours (ACIRRT, 1999: 116);
- between 1990 and 1997, hourly earnings for those in the bottom decile fell by 8.4 per cent while those in the top decile rose 10.5 per cent. The situation is even worse when weekly income is considered. Average hours at the bottom of the labour fell by 10.1 per cent while those at the top moved slightly ahead (0.5 per cent), adding even more to problems of inequality (Watson, 2001: 14-15);⁵
- growing numbers of young adults (ie those 20-24) are combining education and work; 25% (1998) compared to 16% (1988). But many of them are not happy with their forms of employment. Amongst part-timer young adult

men in particular, 40% want to work more hours each week (Buchanan and Bretherton, 1999: 55-68);

- despite being supposedly 'industry' or 'employer' led, the system still appears to many at workplace level to be 'overly complex, confusing and difficult to access' (Allen Consulting 1999: xiii). The influence of key officials in leading peak employer associations may have increased, but the input of most employers is marginal at best and usually totally absent. The Allen Consulting study (1999: 63) found 'that over 80 per cent of companies were either unsure or disagreed with the proposition that more recent changes to the training system had made the training easier to access';
- despite the shift to a 'demand' driven system, complaints of skill shortages persist;⁶
- levels of training provided by employers have fallen. Indeed, the changes in VET policy appear to be part of a significant cost-shifting exercise from employers to the state. Some commentators have argued that far from delivering a dynamic, demand driven system, the reforms of the 1990s have merely delivered enhanced business welfare at public expense.

Part of the Problem Has Been the Scale of Industry and Occupational Restructuring... but Policy Itself Also Appears to be a Problem

Difficulties adjusting to the profound shifts in industry and occupational structure partly underlay the malaise. Industry restructuring arises from changes in the type of output produced by the economy. Occupational restructuring arises from changes with how labour is deployed in production and service provision. The magnitude of the changes in occupational structure is evidenced by the rate of change in the coding system used by the ABS to report occupational structures. This changed little between the 1950s and 1980s, but has already changed twice since 1985. We are clearly living through a period of dramatic occupational upheaval – in the nature and content of work.

⁴ The summary provided in the text only covers the bare essentials of the new training market. Further details can be obtained from sources such as Australian National Training Authority (1997a & 1997b) and ANTA/DEETYA (1997).

⁵ More comprehensive analysis of the overall decline in working life for most Australians in the 1980s and 1990s is provided in ACIRRT (1999).

⁶ The problem of skill shortages became so acute in 1999 that the Federal Minister for Education, David Kemp, met with the three largest national employer organisations to discuss the topic and formed working parties to examine the problem in engineering, electrical contracting and the automotive trades (Allen Consulting Group 1999).

THE POLICY CONTEXT: Recent achievements but multiplying problems

There has been some debate as to whether these changes have been associated with upskilling or deskilling the workforce. While debate on the issue is far from settled it appears that polarisation is occurring. 'Middle' level skill jobs have declined but there is growth in both 'high' and 'low' skill jobs, especially amongst male workers (Dunlop & Sheehan 1998; Joint Governments' Submission 2000: 350–356). Table 1 reveals losses and gains in various types of 'skilled' and 'unskilled' occupations in our case study industries between 1997 and 2000.

TABLE 1: NUMBER OF EMPLOYEES IN KEY OCCUPATIONS FROM THE CASE STUDY INDUSTRIES, AUSTRALIA, 1997 - 2000

Occupation (employees)	1997	2000
Carpentry etc trades	55,140	46,717
Construction & Plumber's assistant	27,525	32,478
Fitters, machinists and toolmakers	120,925	112,524
Manufacturing production machine operators	36,777	36,915
Bank workers (eg tellers)	87,669	63,024
Cleaners	177,143	178,099
Social welfare profs and associate profs	55,867	78,015
Computing profs and technicians	133,787	176,735
Keyboard operators	97,780	123,430
Waiters	76,810	99,186

Source: *Employee Earnings, Benefits and Trade Union Membership*. Unpublished tables ABS.

Trends in occupational change are hard to quantify over the longer-term because of changes to classificatory schemes but analysing the most disaggregated occupational information available from the 1966, 1971, 1976 and 1981 censuses, Sweet (1987) similarly concluded there was a growth in both workers employed in 'low' and 'high' skill occupations.

These developments should be seen in perspective – structural change is nothing new as illustrated by the data in Table 2 on changes in industry employment shares between 1966 and 2000.

TABLE 2: EMPLOYMENT BY INDUSTRY, AUSTRALIA, 1966, 1986 AND 2000

Industry	1966 (%)	1986 (%)	2000 (%)
Agriculture	8.9	7.4	5.4
Manufacturing	25.5	16.4	12.5
Services	65.2	76.2	82.1
- finance, property and business service	6.1	9	14.6
- community services	10.1	18	16.5
- recreational, personal and other services	5.9	7	8.7

Source: ABS, *Labour Force, Australia, various years*.

It is clear from Table 2 that there were also dramatic changes in the composition of work between 1966 and 1986. The scale of change to agriculture and manufacturing, for instance, was just as significant between 1966-86 as in the past 15 years.

Clearly, the frustrations currently felt by different stakeholders cannot be attributed to structural change alone. Something else has changed. Arguably the most significant quantitative change has been the demise of full employment. Since the mid-1970s unemployment has steadily worsened, settling in at a higher level after each phase of the trade cycle. But it is important to recognise that the problem is not just that there are fewer jobs relative to the supply of available labour. There has also been a major change in the character of jobs – especially the way in which labour is joined to production/service provision. As we note later, an equally significant development has been the emergence of new models of work and their allied notions of skill. These models are closely linked to policy changes.

Historically, much policy thinking and practice about work and skills in Australia was informed by what could be described as 'Harvester Man' view of the world. The essential features of this model are well known. In making a judgement about 'basic' wage levels, H. B. Higgins made explicit assumptions about the key criteria or reference points for wage-setting which he defined on the basis of skill divisions in the labour market and the gendered division of labour in the household.

As Macintyre (1985: 55 & 57) has argued:

Higgins decided that a fair and reasonable wage must be based on need. Neither the market value of labour nor the financial condition of the industry could be acceptable criteria since the task of the court presupposed some higher standard than the higgling of the market, and if the enterprise could not pay its workers a living wage, then it would be better abandoned. The minimum wage should be that amount that would enable a worker to live as a 'human being in a civilised community' and to keep himself and his family in frugal comfort... 'Marriage is the usual fate of adults,' he said and, in the following year, reiterated that 'a wage that does not allow for the matrimonial condition of an adult man is not fair and reasonable, is not a 'living wage'. In setting the basic wage he had before him eleven household budgets for unskilled workmen employed at H. V. McKay's Harvester Works, and those households contained from one to seven children. Somewhat arbitrarily, he settled on three children as the average number of offspring that his basic wage was meant to maintain, and based all subsequent awards on this family of five.

Additionally, implicit assumptions underpinned this model of standard labour, especially concerning the issue of how labour was joined to production which became the key features of 'standard,' 'traditional' or 'permanent' employment. They are usually defined as 'workers (who were often tacitly conceived as male) who were engaged full time on a continuous (or full year) basis as employees (ie not as contractors). Typically, it was also assumed that the employer was a large scale enterprise that owned and controlled the place of work' (ACIRRT 1999: 165-7). These notions of work and employment also shaped broader economic and social policies for most of the twentieth century including technical and further education which primarily worked to support employment based trade training.

This model provided both a powerful description of reality and guidance on policy on work and skills from the early part of the century until the 1960s. From that time onwards, developments beyond its original contemplation began to emerge. In particular, women entered the labour market en masse and moved into modes of employment (part-time and casual) largely unconsidered and peripheral to the 'Harvester Man' model. Significant effort was expended to modernise

and extend the reach of the model with only mixed success. The equal pay cases of 1969 and 1971 went a long way to reducing the explicit legitimization of gender based segmentation that had been at the heart of the Harvester model. The Kangan reforms of the mid 1970s, which broadened the role of technical education to encompass education for citizenship and life at work and beyond, were also designed to broaden the reach of the Harvester model. But later efforts to redefine the segmentation in the labour market based on skill level, such as enabling inclusive career paths for all parts of the workforce, proved elusive. This objective was one of the key visions behind award restructuring and the National Training Reform Agenda. Both resulted in profound changes in labour market regulation in general and TAFE operations in particular. As we show in more detail later, these initiatives had little or no success.

As modifications to the 'Harvester Man' model stalled, a new model we refer to as the 'flexibility' model emerged. Its key concern was 'flexibility' at enterprise level. This development involved a rejection of 'rigidities' associated with the established regime of award regulation and fairly fixed notions of skills and training associated with the TAFE system. The flexibility agenda came to predominate, primarily in the form of 'enterprise bargaining' in the realm of policy about work and the 'training market' in the realm of skill formation policy. As we show later, despite its promise of increasing choice, one of the key legacies to emerge from the policy regime based on this model has been fragmentation in training provision and standards, and considerable confusion amongst potential employer and worker clients. Moreover, despite the expectation that increased flexibility would deliver a more responsive skill formation system, reports of skill shortages are as common as ever. Far from having transcended the problems of the old 'rigid' or 'standardised' model of the past, the drive for flexibility appears merely to have compounded problems.

It is now obvious that even the modified 'Harvester Man' model had its limitations. It is also clear that the 'flexibility model' has serious problems of its own. Clearly we need to gain a better understanding of the way skills and work are actually linked in the current situation. From this we have been able to devise ideas for improving both as well as the links between the two. But first we need to report on how we went about undertaking the research for this project.



THE PROJECT: Generating new insights into the current situation

The research project was carried out in three stages. Stage 1, which ran from February to September 2000 focused on clarifying the key issues to investigate. This involved interviews with nine key informants, reviews of the English language policy and research literature (project Working Paper 1), an overview of the history of VET in Australia and close scrutiny of unpublished ABS data on the links between education, training and the labour market (project Working Paper 2). This resulted in the production of a paper which provided an overview of initial findings.

After completing Stage 1 it became clear that the key research priority was to examine how work and skill issues operated in a range of different sectors. We selected six: two 'traditional' blue collar sectors with large trades level workforces (ie Metal and Engineering and Construction project Working Papers 3 and 4) and two white collar private sector service industries (ie Banking and IT, project Working Papers 5 and 6). We also examined one 'low skill', growing private sector industry (ie Contract Cleaning Project Working Paper 7) and one public sector/non-government sector industry (ie Family Support Services project Working Paper

8.) In tandem with this process, a member of our team conducted a comprehensive analysis of the recent French literature on the changing nature of work and the skill formation (project Working Paper 9 and Mournier, 2001). In addition, we also considered the most recent literature on policy development and implementation (project Working Paper 10). A range of other literatures and debates concerning ethics at work and globalisation were also considered. The key references considered are cited in the footnotes in this document, especially in the next section, Rethinking Objectives.

Stage 3 involved deepening the case studies by undertaking 12 life histories – two from each industry studied (project Working Paper 11). It also involved synthesising the information collected. This initially involved the production of a cross case analysis of the industry case studies. The document subsequently evolved into this synthesis report.

Each stage has built on each other in a cumulative fashion. The next section summarises the key findings arising from a consideration of all stage of the research as a whole.

KEY FINDINGS ARISING FROM ALL STAGES OF THE RESEARCH

As noted in the previous chapter, this project covered a lot of ground and generated much new material on which to reflect. Despite its breadth and volume we have identified six key findings. These can be summarised as follows:

- too much has been expected from policy on work and skill in the recent past;
- the key emerging realities concerning work involve changing forms of competition, the restructuring of business organisation (eg supply chains) and new forms of employment;
- the emerging realities concerning skill involve a shift in the relative importance of cognitive, technical and behavioural competencies. There is declining employer interest in providing the first two, but growing interest in the latter. Workers are increasingly expected to provide for the first two and to willingly accept selection and training based on the latter;
- while general trends are discernable it is important to recognise that there is significant deviation from such trends. Understanding how both 'general trends' and 'diversity' cohere in practice is best achieved by using the notion of 'skill ecosystems' – ie clusters of high, intermediate and low level competencies in a particular region or industry shaped by interlocking networks of firms, markets and institutions;
- when thinking about the future it is important to be clear about the key objectives of policy. In particular it is important to distinguish between promoting 'work' as opposed to promoting 'labour.' Given that many people are unlikely to find jobs that extend them (ie many will end up undertaking labour and not work) policy needs to promote flourishing beyond the labour market. This could be achieved by career breaks, rethinking care work and/or rethinking rights to transferability of entitlements. It also means ensuring that there are decent rates of pay and hours of work to enable people to develop beyond the confines of paid employment;
- there is a need to rethink the role of policies on work and skills. This means thinking about the context and systems surrounding policy development and its implementation and not just its content. The challenge is not just to think up better policies on work and skills but to ensure that a concern with these issues is central to the wider policy mix pursued by the government.

Further detail about each of these findings is summarised in each of the following sections.

Too Much Has Been Expected From Work and Skill Formation Policy in the Recent Past

Political and scholarly interest in skill formation and VET reform has grown apace in recent decades. Across the advanced economies of Western nations, political parties of both left and right have embraced skill acquisition in particular as a powerful and necessary mechanism for addressing problems as diverse as high unemployment, international competitiveness, social disadvantage and poverty.

A key part of this project has involved close scrutiny of the analytical literature underpinning these developments in policy. The key finding arising from this stage of the research was that the latest studies from both the UK and the US have established that too much has been expected from policies directed at reforming work and systems of skill formation.

Human capital theory is arguably the most enduring analytical framework in economics that deals with skills and work. Within this framework education and training are viewed as investments in human capital freely chosen by individuals. In the words of Mincer (one of the initial leading human capital theorists):

The choice refers to training differing primarily in the length of time it requires. Since the time spent in training constitutes a postponement of earnings to a later age, the assumption of rational choice means an equalisation of present values of life earnings at the time the choice is made... Interoccupational differentials are therefore a function of differences in training... Intraoccupational differentials arise when the concept of investment in human capital is extended to include experience on the job (Mincer 1958 cited in McNulty 1984: 193).

Either explicitly or implicitly, ideas about human capital conceived in this way have informed public policies concerning education in many advanced industrial economies since at least the 1960s. Given that many of the benefits of education cannot be captured by firms or individuals, so the argument goes, there is often underinvestment in skill unless public policies support their development.

To base arguments about work and skills on notions of human capital conceived in this way is unhelpful. As Chris Briggs and Jim Kitay (project Working Paper 2) note in the review of recent English language literature on skill formation, the flaws in human capital theory have now been thoroughly documented.

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The key limitations with this framework include:

- education is often used as a screening device by employers and not simply to equip workers with skills needed for particular jobs (eg Thurow, 1972; Bowles and Gintis, 1976; Blaug 1992);
- at best most quantitative estimates of the relations between education, work and earnings posited by human capital theory account for only half observed differences in earnings (Groschen 1991);
- generations of poverty alleviation programs based on the assumptions that increased levels of human capital will reduce inequality have manifestly failed (Osterman, 1988).

In the 1980s and early 1990s, underpinning the rise and rise of skill formation across the horizons of policy-makers, three influential strands of literature nominated skill acquisition and development as a key determinant of national economic performance.

The first of these was the 'flexible specialisation' or 'post-Fordist' school. The seminal text was Piore and Sabel's *The Second Industrial Divide: Possibilities for Prosperity* (1984). Greater competition from low-wage nations, the increasing volatility and fragmentation of markets and the development of new technology was claimed to be eroding the viability of mass production for high wage economies. Piore and Sabel identified two alternatives. Neo-Fordism, based on deepening work intensification and cost cutting strategies to match competition from low wage producers, or flexible specialisation defined as:

a strategy of permanent innovation: accommodation to ceaseless change, rather than an effort to control it. This strategy is based on flexible – multi-use – equipment, skilled workers, and the creation, through politics, of an industrial community that restricts the forms of competition to those favouring innovation (Piore and Sabel 1984: 17).

Upgrading the skills of the labour force was therefore essential to facilitate the adoption of flexible specialisation which could not work without adaptable, committed, flexible employees. Australian versions of the flexible specialisation or post-Fordist thesis also flourished – most notably in the work of John Mathews and Richard Curtain (see Curtain & Mathews 1990; Mathews 1989).

The flexible specialisation/post-Fordist theorists, like many policy-makers and practitioners, proceeded on the intuitively commensensical proposition that a more highly skilled workforce would underpin the development of high productivity, high value-added economy. Yet 'hard, detailed evidence of direct causal links' between skills and economic

performance was scarce (Keep and Mayhew 1988: iv). The British National Institute of Economic Studies (NIES) conducted the most rigorous studies to empirically test the micro-level connections between skills and productivity implicit in the flexible specialisation/post-Fordist literature.

The NIES conducted 'controlled experiments' on the relationship between vocational training and work performance through a series of matched case studies at workplace level. The researchers compared British and German firms of similar size and technological standards in basic metalworking products (Daly, Hitchens & Wagner 1985), kitchen furniture (Steedman & Wagner 1987), women's outerwear (Steedman & Wagner 1989) and hotels (Prais et. al. 1989), aiming to systematically gather data on the 'relative contribution of physical and human capital' (Steedman and Wagner 1987: 84) to the 'productivity gap' between Britain and Germany. The key finding of these studies was that the German apprenticeship system was superior in that it developed a larger cadre of workers with better skills. Higher skill levels led to better utilisation of capital equipment, work quality and productivity which enabled German firms to achieve success by shifting into high value-added niches in export markets:

The net effect of these technological and organisational differences was that the typical German and typical British firms that we visited were visibly of different calibre... the worry raised by the present study is of a very wide sort: even simpler 'non technological' products require increasing levels of skill to take advantage of new production technology. The pressing question is whether the calibre of Britain's manufacturing workforce can be raised sufficiently rapidly to produce more goods of high quality, reduce inroads by foreign producers with access to a more trained workforce and prevent further contractions of our manufacturing workforce as a whole (Steedman and Wagner 1987: 94).

The NIES studies, accorded 'canonic status' (Cutler 1992: 168) in UK policy debates, were widely cited as proof of skill deficiencies, their role in lower productivity and the urgency of increasing the number of British workers with advanced vocational qualifications. They were also particularly influential amongst some of the key players in the development of Australia's National Training Reform Agenda in the later 1980s (see for example Ewer et al 1991).

Both the flexible specialisation/post-Fordist and NIES literatures devoted most attention to manufacturing. Robert Reich developed a more universal thesis that also claimed skills and work related issues are the key to competitiveness, prosperity and lower unemployment. In *The Work of Nations* (1992), Reich expounded a sweeping treatise about the coming end of national corporations and economies, the emergence of rootless, multinational 'high

value enterprises' and the importance for policy makers to attract and develop high skill 'symbolic analysts'.

According to Reich (1992), the road to profitability for modern corporations is no longer high-volume production of standardised goods but the use of specialised knowledge to develop high-value goods and services. Skill is the new source of competitive advantage:

The new barrier to entry is not volume or price: it is skill in finding the right fit between particular technologies and particular markets. Core corporations no longer focus on products as such; their business strategies increasingly centre upon specialised knowledge (Reich 1992: 84).

Reich posits that three dominant categories of work are emerging as a consequence of the transformation of the corporate landscape.

1. 'routine production services' ('the old footsoldiers of American capitalism') such as blue-collar occupations and repetitive jobs in high-technology firms such as data processing which are globalised occupations;
2. 'in-person services' such as shop assistants, waiters and security which can only be delivered locally;
3. 'symbolic analysts' in occupations such as scientists, information technology professionals, consultants and cultural workers which are also 'traded' worldwide.

According to Reich, the future prosperity of a nation rests upon its capacity to attract and generate symbolic analysts; the key to national performance in a globalised economy is a policy mix which generates skilled knowledge workers⁷.

Each of these analytical tendencies pointed to the central importance of policies on work and skill for future economic prosperity. Each in their own way played an important role in shaping the climate of ideas that informed profound policy shifts in the 1980s and 1990s. Whilst appealing at first glance, each of these analytical traditions suffer from a number of serious analytical flaws. These are outlined at greater length in project Working Paper 2 by Briggs and Kitay. In brief the major weaknesses can be summarised as follows:

- the meta-history propounded in the flexible specialisation literature underplays the diversity which existed historically and therefore overgeneralises the current and future diffusion of new production systems. Its determinism about markets, technology and employment strategies sits uneasily with the openness of historical and contemporary change (Williams et al 1987);

- the comparative workplace studies undertaken by the NIES do not, on closer examination, actually prove what is attributed to them. Often, significant differences in technology did not receive the attention they should have. More importantly the analytical framework informing the studies is a 'factorial' approach to labour productivity which leads the researchers to merely modernise the older 'British labour problem' as the source of economic malaise. It is no longer slack work attitudes and industrial militancy which is allegedly the bane of British manufacturing but the inadequate skills of the workforce and 'outmoded' practices such as demarcation barriers. By constructing their studies in terms of factors of production at the workplace level, the NIES researchers have abstracted management and influences beyond the point of production out of the picture. Management, once more, is a 'victim' of systemic failures and assumed to be a constant (Cutler 1992);

- the preoccupation with symbolic analysts appears to be mis-specified and misplaced. Reich's claim that symbolic analysts are the fastest growing category of work does not correspond with the projections of other authorities. For instance, as Henwood (1996: 1-2) notes, the US Bureau of Labor Statistics 'projections of fastest growing occupations between 1994 and 2005... bear no relation to his fantasies... of the top 30, those that look like symbolic analysts account for 7 percent of employment now and 13 percent of project growth'. Moreover, the prodigious growth in the incomes of symbolic analysts – the major piece of evidence cited by Reich as proof of their growth – does not reflect the value generated by their work so much as their success in 'extracting value' through mergers, takeovers and asset-stripping (Harrison 1994: 229).

Aside from the particular weakness with each of the new approaches, there are a number of limitations common to all of them. Firstly, each of these analytical currents focussed on the more highly skilled segments of the labour market which limits the relevance of their analyses and prescriptions. As Crouch and his colleagues (1999: 108) have recently argued:

By the 1990's the idea of the learning society had acquired practical relevance in most of our countries. However, the very highly skilled sectors continue to represent small shares of total trade, and they employ relatively few people. It remains important to separate the mass of developments in employment from potentialities for export growth.

The second major weakness of each of these analytical traditions is their neglect of the rising preoccupation with

⁷ Reich, like the post-Fordists, also had Australian followers. See Maglen (1994).

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'shareholder value' as a constraint on management strategy and public policy. As Cutler puts it, major problems arise in British enterprises because the primary aim is profit rather than organic growth. As a consequence of the separation of financial ownership and management, enterprises are often treated as 'financial assets' to be traded in which 'assets are made to sweat' (Cutler 1992: 178) through tight control of costs including training expenditure. The low level of training expenditure in these firms is, therefore, not so much a 'market failure' but the product of a different and increasingly dominant business strategy – as, ironically, experienced by Robert Reich within the Clinton Administration. During his time as Secretary for Labor, Reich witnessed the defeat of a \$50 billion education policy proposal (including major skill formation initiatives), primarily because of resistance led by Wall Street. Reich (1997) ruminated bitterly afterwards:

Never before in the history of mankind have the feelings of the street had such decisive force. The ancients worried about the mood of the skies, mountains, seas and forests. We are just placating a pavement. We are only worshipping Wall Street.

As policies informed by the skill-centric traditions faltered, policies inspired by another more influential discourse began to prevail – variously described as 'free market ideology', advanced or neo-liberalism or 'market regulation.'

The hallmark of this tradition is a concern with 'flexibility.' This discourse is formally indifferent to skill levels. Instead, its primary concern is with creating structures to replicate and nurture markets wherever possible with the assumption such structures will deliver greater 'flexibility' in the use of resources and thereby maximise the efficiency in their use. The essential features of this discourse in general have been usefully summarised by Nikolas Rose (1999: Chapter 6). A detailed analysis of the implications of these ideas for labour and skill related issues has been provided by Standing (1999: Chapters 3 and 4). Whereas an earlier generation of liberal theorists thought primarily in terms of 'human capital', the current generation thinks in terms of 'marketising' all aspects of work and training.

A policy shift of this type was particularly evident in the UK in the 1980s and early 1990s. In the UK, there was partial recognition that the policy orthodoxy of boosting skills to promote efficiency and equity had its limitations. The Conservative Government's response to evidence of poor VET performance (eg crisis in apprenticeship system, limited success of non-apprenticeship alternatives) was to instigate a 'supply side revolution', introducing 'quasi-markets' into the educational system and dismantling sectoral coordination of training in favour of employer-led local councils (Keep and Mayhew 1999: 2-3). The logic of this policy was simple: an alleged mismatch had developed between supply and

demand of skills because of the training system was too remote and disconnected from labour market and employer demands.

But this shift in policy focus merely generated a further set of problems:

Growing dependence on the individual enterprise rather than general public policy as the source of major initiatives in work skills raises the central paradox on which we have concentrated: the acquisition of skill has become a fundamental public policy issue, being almost a requirement for future guarantees of effective citizenship when the price of poor or inappropriate educational preparation for work is likely to be a low-paid job in a low-productivity sector with diminished security; but for its provision we are increasingly dependent on the private sphere of the individual firms which can have no responsibility for general needs (Crouch et al 1999: 231).

As Crouch et. al. (1999) have also noted, the development of more 'flexible' government agencies that are attuned to 'business needs' does not necessarily provide a sound basis for public policy:

There is a considerable difference a government agency working with the grain of the needs for firms already engaged in skill maximisation and one seeking to ratchet up the skills needs of companies lacking such an approach. Where firms are not themselves enterprising, the more responsive and firm sensitive an agency is, the less capable it is of being proactive and strategic. This is of little use to a goal of maximising national skill creation and utilisation (Crouch et al 1999: 220).

Firm-led policy agendas are unlikely to resolve problems associated with the under-provision of public goods such as education.

The problems of business-led strategies of skill formation are especially problematic where the attachment between workers and firms are weakening. For example, in the US – often regarded as a model for other countries to adopt – organisational and work restructuring, especially downsizing in the pursuit of enhanced 'shareholder value', reduced internal labour markets and job security have decreased the length of time that employees stay with a single employer (Osterman 1999). Employees have lower attachment to their employers and firms are more likely to retrench their staff. Because employment increasingly involves situations where employers seek to minimise their obligations to workers, the provision of skills by employers is becoming less common (Cappelli et al 1997).

Policy now appears to be in a conundrum: is there a way beyond the limitations of both the 'skills centric' and

'flexibility' approaches? Recent scholarly critiques of the 'skill-led recovery' and 'flexibility models' have highlighted the need for more realistic and contextualised frameworks. A conceptually sophisticated and policy-oriented body of work has emerged from a group of academics associated with the Oxford Review of Economic Policy ('the Oxford School'). Beginning from similar conceptual origins, perhaps the most comprehensive single piece of literature on skills and public policy in recent years has been Crouch, Finegold and Sako's 1999 book, *Are Skills the Answer? The Political Economy of Skill Creation in Advanced Industrial Countries*. A similar current of thought is also gaining momentum in the US around a cluster of management, labour market and educational researchers involving such scholars as Osterman (1999), Cappelli et. al. (1997) and Bernhardt & Bailey (1998).

The central feature of this new current of research is that issues of work and skill can only be properly understood and addressed in the context of a wide array of social, political and economic arrangements. In thinking through these connections writers like Finegold and Soskice (1988: 22) initially developed the notion of a 'low skill equilibrium'.

The term 'equilibrium' is used to connote a self-reinforcing network of societal and state institutions which interact to stifle demand for improvement in skill levels. This set of political-economic institutions will be shown to include: the organisation of industry, firms and the work process, the industrial relations system, financial markets, the state and political structure, as well as the operation of the [education and training] system. A change in any one of these factors without corresponding shifts in the other institutional variables may result in only small long-term shifts in the equilibrium position.

The 'low skill equilibrium' was the product of 'rational' (Keep and Mayhew 1999: 4) action by firms and workers in the light of incentives created by state institutions and markets. Simply increasing the supply of skilled workers is unlikely to 'jack us out of any low skills equilibrium' (Keep and Mayhew 1999: 7):

Current UK VET policies... appear incapable of acknowledging that skills are often a third-order issue (Ibid: 16).

Clearly too much has been expected of policy concerning work and skills in the recent past. But equally, attempting to solve the problem by making policy more 'employer sensitive' has merely exacerbated the problem. Both recent shifts in policy have assumed that the key problem resides in the system of skill formation. Neither addressed employer behaviour, and the factors shaping/driving that behaviour. But as the most recent literature has revealed, it is an understanding of these issues that is vital if we are to understand both the context in which skills are formed and

used and how effectively we can design policy.

The limitations of this policy position are now clear given the experience of the 1980s and 1990s. What is now also clear is that the problems involved more than just issues of implementation. Fundamentally, they arose from flaws in system design. A key weakness of the earlier literature was that it also neglected the changing nature of work in general and the restructuring of business organisation in particular. In thinking through approaches to the future we clearly need an analysis that is more firmly anchored in the current realities surrounding and concerning work and skill today. It is to these issues that we now turn.

Emerging Realities at Work

Previously we noted the limitation of traditional policy models for understanding recent developments concerning work and skill formation. As labour market and skill formation researchers we were, of course, aware of the debates around the changes associated with both the emergence of non-standard forms of employment and the changing character of 'standard' employment. What was so powerful about the original work done for this project, especially the industry case studies and life histories, is just how far the shift has been away from the issues that would be highlighted by the 'Harvester' and 'flexibility' models of employment. If we are to properly understand the realities with which policy in this area must deal it is imperative that we grasp the importance of the changing levels and nature of commercial competition, the radical recasting of forms of business organisation and the significance of non-standard forms of employment.

Changing forms and levels of competition

It is well known that levels of market competition have increased in recent decades. Of the industries studied, this was most apparent in the banking and metal and engineering sectors. In retailing banking one of the key drivers of change has been the shift from rationing to selling money. This has resulted in a shift across the entire sector away from what has been described as a 'service culture' to 'selling' or retail culture. This change has affected every aspect of retail banking operations. In metal and engineering the key development has been the reduction in levels of barrier protection occurring in the context of growing excess capacity in all branches of the industry world-wide. This has driven a series of major rationalisations across the industry over the last two decades.

It is important to note even in non-trade exposed sectors there have been changes in the character of the operating environment. In construction, for example, competition between sub-contractors has intensified. Similar dynamics

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operate in IT. And in the public sector there has been a drive by governments at all levels to rely on market or quasi market mechanisms to deliver services. This has been a long-standing practice in family support services. As levels of direct funding by the public sector shrinks, growing numbers of community organisations are expected to carry a greater load even though many of them are primarily volunteer organisations. With increased responsibility comes pressure to formalise and accredit community sector workers.

Changing forms of business organisation

Both the Harvester and Flexibility models assumed the enterprise was the key category of relevance when understanding who engages labour. Privileging 'the enterprise' as a key category for analysis and policy in the current situation is profoundly misplaced. In understanding changes at work, it is far more important to understand dynamics associated with networks of production, supply chains and outsourcing arrangements.

Table 3 provides a statistical overview of how manufacturing workplaces made use of different 'sourcing' arrangements. It also shows how the use of such arrangements changed in the first half of the 1990s. As is clearly evident from Table 3,

TABLE 3: INCIDENCE OF DIFFERENT LABOUR USE PRACTICES IN MANUFACTURING WORKPLACES, AUSTRALIA, 1990 AND 1995

Form of non-standard work and workplace size measured by number of employees	1990	1995
Casuals	55	62
- 20-50	48	57
- 500 +	74	68
Labour Hire	14	23
- 20-50	11	10
- 500+	14	50
Contractors	43	33
- 20-50	46	22
- 500+	33	57
Outsourcing	-	45.7
- 20-50	-	51
- 500+	-	81.4
Retrenchments	26	27
- 20-50	21	24
- 500+]	39	60

Source: AWIRS 1995 Table prepared by Ian Watson upon request.

Note: No outsourcing material is available for 1990 as this data was only collected from workplaces involved in both the 1990 and 1995 surveys as part of a longitudinal panel for the 1995 survey. And data on outsourcing is an 'all workplace' not manufacturing workplace estimate.

there was a significant shift in the use of different ways of engaging labour during this period. Larger workplaces were especially prominent in their increased use of labour hire, contractor and outsourcing arrangements.

Evidence of these arrangements was clear in the case study industries. In a number of industries sub-contracting or similar arrangements have been longstanding. In construction, for example, well over two-thirds of workers are employed in establishments with less than 5 workers and 85 percent are engaged in establishments with less than 20. Most of these small organisations work on a sub-contract basis to head contractors. As time passes it appears that the fragmentation associated with sub-contracting is intensifying with the proportion of workers in establishment with more than 20 employees falling from 32.9 percent of the industry employment in 1988-89 to 13.6 percent of industry employment in 1996-97.

Organisations providing family support services have usually done so on a quasi-subcontract basis for state level governments. In September 1999, for example, NSW family support agencies reported working with a total of more than 28,000 families during the year, and 5,500 families in any given week. These support services are provided by 130 organisations varying in size from 0.1 to 9.5 full-time equivalent staff. The middle 50 percent employ between 1.2 and 3.4 full-time equivalent staff. The case study of family support services reports that the range of activities undertaken by these service providers is increasing as the level of direct provision of service by public sector agencies declines.

Contract cleaning has been profoundly affected by the shift to outsourcing. For example, between 1988 and 1999 overall employment growth increased by a little over 14 percent whilst employment in the cleaning services industry increased by 114.3 percent to 95,000. A disproportionate amount of this growth occurred amongst larger organisations. Whereas enterprises with 100 or more workers accounted for 37 percent of employment in 1988, by 1999 they employed 54.9 percent of total industry employment. The growing concentration of larger numbers of cleaners in the contract cleaning industry highlights just how rapidly and dramatically the business setting of cleaning work is changing today.

The shifting nature of business organisation has been different again in the banking, IT and metals sectors. Here, the key dynamic has been steady fragmentation in functions and business units consequent upon the vertical disintegration of firms. In metal machinery and equipment manufacturing, for example, the proportion of workers in factories with 100 or more employees fell from 65.4 percent in 1982/83 to 52.5 percent in 1997/98. Over the period of

1991–1997 the proportion of industry gross product accounted for by the small and medium sized firms remained stable but increased by 50 percent amongst the larger enterprises. Employment levels were broadly stable across small, medium and large enterprises. The restructuring of workplace and business units in the metal sector appears to be resulting in larger firms accruing a greater proportion of the gains of growth without incurring any greater risks or obligations in the form of rising levels of employment.

Changing forms of employment

With forms of business organisation changing it is not surprising the modes by which labour is joined to production or service provision have also changed. Table 4 provides similar information on how changes in the levels of ‘non-standard’ employment have risen over the last two decades. The proportion of the workforce that is engaged on a casual or contractor basis has risen from just over a quarter (27 percent) to around two in five. Permanent part-time workers now constitute around 10 percent of the employed workforce. This means that full time, permanent employees now account for only around half of the employed workforce.

TABLE 4: INDICATIVE MATERIAL ON THE RISE OF NON-STANDARD EMPLOYMENT, AUSTRALIA, LATE 1970s COMPARED TO LATE 1990s

	Late 1970s	Late 1990s
‘Casuals’	10	20
‘Contractors’		
- sole traders	15	14
- owner managers of incorporated enterprises	2	6
Total	27	40

Sources: ABS, *Labour Force, Australia, July 1997*, Tony Kryger, *Casual Employment, Research Note 2, 1999-2000*, Statistics Group, Parliamentary Library, August, 1999.

This trend was clearly evident in all six of the case study industries. In no industry studied were full time, full year jobs based on ‘permanent’ employment on the rise or even stable in number. Rather, nearly all net employment growth appears to be taking one of the following forms:

- part-time (especially evident in retail banking);
- casual (widespread in construction and of growing significance in metal and engineering);
- labour hire – often casual employment is growing on the basis of labour hire arrangements (eg metal industry);

- contractors (particularly widespread in construction and IT but also on the rise in metal and engineering);
- volunteers (this form of employment accounts about 10 percent of all hours worked in the family support services industry).

The implications of emerging realities for training at work

The combined effect of these developments has been changes in both the content of work and the capacity of employers to provide proper training. Tendencies of change here have not been uniform. One of the major changes has been a reduction in demarcations and the elimination of narrow job definitions, often ‘broadbanding’ jobs that require roughly the same level of skills (eg retail banking, parts of metal and engineering). On the other hand there is also evidence of employers relying on ‘buying’ in highly specialised technical skills on an ad hoc basis. This was apparent in the use of skilled labour hire workers in metals and is all-pervasive within the IT sector. In some industries the content of work has changed little, it’s just organised on a different business basis (eg contract cleaning). There was some evidence of multi-skilling (as opposed to multi-tasking) in construction. This, however, appears to be confined to a very limited number of workers employed by head contractors.

Changes in staffing levels and not just forms of employment also appear to be having an impact on training. Direct evidence of understaffing and increased work intensification was clearest in family support services. Between 1989 and 1999 the number of full time equivalent positions increased by 35 percent. During the same period, however, the number of family clients handled in a full year increased by over 100 percent. Moreover, the proportion of families with children at risk notified to the Department of Community Services increased from around a quarter in the early 1990s to half by the end of the decade. Detailed information on cuts in staffing levels was provided in the retail banking case study. References to the problem of understaffing and work intensification were noted in case studies from all the other industries. These changes appear to be reducing levels and quality of on the job training because it limits the ability of experienced employees to teach co-workers. This problem was noted in the IT, banking, metal and engineering and family support services case studies.

The combined impact of these changes appears to be a radical change in career structures. In some sectors an ideology appears to be emerging that workers should change their expectations about continuity of employment and career advancement within the one workplace. Instead, they are told they need to accept that the best they can hope for in the labour market are ‘opportunities’ to get ensembles of

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'experience' and not coherent careers as such. This was most pronounced in banking. The failure to establish career paths in metals was the corollary of this. In saying this we do not wish to imply that an old system of well functioning career paths for all is breaking down. Far from it. Many workers, especially women, rarely had access to career paths. But those that did exist appear to be disappearing and instead the best many people can hope for are ensembles of opportunities.

These emerging realities have major implications for policy concerning work and skills in a rapidly changing labour market. In particular it needs to break with the categories of 'individuals' and 'enterprises' implicit in both the Harvester and Flexibility models and instead deal with production/service networks and the growing forms of non-standard employment associated with them.

Changing Approaches to the Development and Deployment of Skills

Any study into work and skills in the future needs to have a clear understanding of how the nature of skill formation is changing. This was, arguably, the central conceptual and empirical preoccupation of the research team. In thinking through this issue we were greatly aided by new work being undertaken in France. In the course of our project Alain Mounier produced a comprehensive analysis of recent developments in two distinctive French language literatures (Project Working Paper 3). The first concerned the changing nature of work, the second the changing nature of education. On the basis of this synthesis he reached a number of simple, but very important findings. It is worth providing a brief summary of them as they help to make sense of the vast array of statistical and qualitative material collected for this project and the changing link between work and skills in the six industry case studies.

The three logics of skill

An issue of major concern in the English speaking world has been whether skill levels are rising or falling in the labour market. Much of the debate on this issue followed the publication of Braverman's seminal study of 'the degradation of work in the twentieth century.' (Braverman, 1974). Controversy on this topic has been particularly intense since its release. Mounier's paper, *The Three Logics of Skill* (2001), commences with the proposition that before we can consider whether general skill levels are 'rising' or 'falling' we need to ask the question: how are skills defined?

As a point of departure he argues it is necessary to grasp the distinctiveness of two domains that shape skill: the labour market and education. The distinctiveness of education

arises from its association with notions of citizenship and especially ideas about equipping a population with fundamental, cognitive capacities. The distinctiveness of the labour market arises from what he describes as 'the duality of the wage earner model.' In the English language literature this is described by writers such as Fox (1974) and Brown and Nolan (1988) as the problem of the open ended nature of the employment contract, and by Braverman as the labour process problem. What it concerns is the peculiar nature of labour as an input in production. An employer hires a worker's potential to perform, not the actual performance of work itself. This inequality of certainty means that while workers are sure of their wages once hired the output the employer receives is open ended because only workers know how diligently they apply themselves on the job. Mounier argues that these different dimensions of the employment relationship underpin different types of skill issues. The first dimension, namely the workers capacity to perform, concerns their capacity to transform materials into saleable products. As such skills defined in this context are technical. But skills of this nature are not the only kind needed if labour is to be productive. The other type of skill associated with the employment situation concerns how workers behave on the job. As Mounier puts it:

In that respect, skills are composed of personal abilities to act in a given hierarchy, to command and obey, to act and collaborate, to solve problems and resolve conflicts, and to adapt oneself to a social environment. In other words, they are personal qualities to cope with interpersonal relationships required by the division of labour.

The three logics of skill identified by Mounier can be summarised as follows:

- cognitive skills – ie a foundation of general skills obtained on the basis of general citizenship (eg literacy, numeracy, general educational competence);
- technical skills – ie those associated with the purchase of labour on the open labour market to perform particular tasks (eg recognised trade or professional skills);
- behavioural skills – ie personal skills associated with labour's ability to perform in the context of particular authority relations on the job (eg usually subordinate roles in the production process or the provision of a particular service).

Armed with these categories Mounier establishes – through a careful scrutiny of the French literatures – his fundamental point:

Changing labour relationships in contemporary societies

entail new social definitions of skill, and new social roles for education and training. Skills are not increasing so much as being socially redefined. What is really at stake in the current process of redefining skills is the creation of a new mode of regulating labour markets, more akin with competitive market mechanisms.

Economic restructuring, changing skills and labour relationships are repositioning the traditional wage earner model of employment as a minority labour market form.

Clearly Australian labour market trends have been similar to those in France. But what about skill formation? Mounier argues that in France labour market restructuring has resulted in a shift in both the level and content of training provided by employers and undertaken by workers. In particular he notes that many employers have used labour market restructuring to shift more of the costs of cognitive and especially technical training onto workers and governments. On the other hand employers have shown rising levels of interest in training associated with 'behavioural' skills or capabilities. Have similar trends been evident in Australia?

'Declining' employer involvement, 'rising' education levels and 'generic' skills

Australian policy makers are lucky to have some of the best quality statistical material on employer training expenditure and practices in the world. These data-sets were extensively examined by Gillian Considine for this project and her findings are reported in a separate Working Paper on the subject (Number 4). Some of the key findings arising from this stage of the research are summarised beneath.

Average levels of training expenditure by employers have fallen steadily over the 1990s. Table 5 provides typical evidence of this trend on the basis of average training hours undertaken by employees reported by their employers between 1989 and 1996. Table 5 also highlights that the trend has varied by workplace size. Overall, average training hours per employee fell from 5.92 hours in 1990 to 4.91 hours in 1996. Amongst small to medium size employers training levels rose between 1990 and 1993. Given that this was during a recession it is most likely this rise was due to the Training Guarantee Act which obliged employers to spend at least 1 to 1.5 per cent of their pay roll on training or otherwise pay extra tax. Interestingly, while large employers dropped their level of training during the recession, this had improved slightly between 1993 and 1996.

TABLE 5: AVERAGE TRAINING HOURS PER EMPLOYEE BY EMPLOYER SIZE, AUSTRALIA, 1989 - 1996

SEPTEMBER QUARTER	Employer Size			All employers
	1-19	20-99	100 +	
1989*	3.30	3.40	7.30	5.70
1990	3.99	4.10	7.06	5.92
1993	4.11	5.30	6.17	5.55
1996	2.42	3.79	6.45	4.91

Source: ABS Employer Training Expenditure, July to Sept, 1997, ABS Cat. No.6353.0.

Population: All employers. For example, in 1989, of all employers who employed more than 100 employees the average number of hours spent training was 7.3.

* Based on a sample of 2000 employers. The sample for 1990, 1993, and 1996 was the same 6000 employers surveyed in the Employer Training Practices Survey.

Employer training expenditure also varied dramatically by industry. Table 6 shows, for example, training expenditure levels rose by 30.5 per cent in mining and over a quarter (25.6 per cent) in electricity, gas and water. Amongst communication and construction employers, however, it fell by 29.6 and 25.5 per cent respectively.

TABLE 6: INDUSTRY CHANGES IN STRUCTURED TRAINING EXPENDITURE, 1993 – 1996

Industry	% change in training expenditure per employee
Mining	+ 30.5
Manufacturing	- 5.5
Electricity, gas, water	+ 25.6
Construction	- 25.5
Wholesale	- 15.5
Retail	+ 18.7
Accommodation, cafes, & restaurants	- 14.6
Transport & storage	+ 13.1
Communication services	- 29.6
Finance & insurance	+ 13.0
Property & business services	- 15.2
Government administration	+ 11.2
Education	+ 23.1
Health & community services	- 13.6
Cultural & recreational services	- 17.6
Personal & other services	+ 1.3
All industries	- 3.0

Source: ABS Employer Training Expenditure, July to Sept, 1996, ABS Cat. No.6353.0. Note: Adapted from Dumbrell (2000b).



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Hence, beneath the aggregate decline in training expenditure over the 1990s there are major variations by industry and size of employer.

Changes in the formation and level of skills amongst workers have been just as significant. The Survey of Training and Education (STE) undertaken by the ABS provides a powerful insight into these matters. Key findings are:

- although 92 per cent of employees work for employers providing some form of training, there are marked inequities across occupational groups with those at the lower end of the labour market worst off (see Table 1 in Appendix 3, ie Table A3.1);
- the vast majority of training received was in on-the-job training (see Table A3.2) with the most likely form 'teaching self'. The lack of clear training objectives and outcomes of this form of training raises important questions about the quality of training provided. Remarkably, the percentage of employees undertaking even this rudimentary form of training fell from 81.8 per cent in 1993 to 71.6 per cent in 1996;
- workplaces with high turnover provided more training than stable workplaces (Table A3.5). These results suggest that a large part of employer supported training is aimed at providing new employees with very basic entry level skills rather than raising overall levels of skills across the workforce;
- our analysis of unpublished ABS training statistics uncovered a confronting paradox: a large number of qualified workers were employed in positions requiring no formal qualifications (see Table A3.6). There was also evidence of many employees with no formal qualifications who were employed in high skill jobs. This is consistent with important North American research which has highlighted one of the key challenges in the contemporary labour market is skill use, not just skill development (see for example, Livingstone, 1999);
- the proportion of unemployed persons with post-school qualifications has risen from 30 per cent in 1993 to 36 per cent in 1997 and participation in training amongst the unemployed has risen across virtually all labour market sectors. (Table A3.7).

Instructive as these statistics are, they provide only a snapshot of trends at aggregated levels. The industry case studies also provided important insights into the nature of the training occurring at workplace level. What was particularly striking about these studies is that they all revealed how relatively irrelevant training packages and other initiatives associated with official skill formation policy are. Instead two types of innovation in training were clearly evident.

The first is associated with changed legislative requirements concerning the quality of service/standard of activity to be undertaken by people doing particular jobs and consequent requirements for new training. One of the clearest examples are the new legal obligations amongst family support workers to report 'children at risk' to the Department of Community Services. This new obligation has created a new training demand to ensure workers in the sector are aware of their legal obligations. Similarly, in banking there are licensing requirements for those providing financial advice necessitating training. Growing obligations concerning occupational health and safety have also brought with them an increased need for training in industries like construction.

The second major development in the case study industries has been the growing employer interest in 'soft' or 'generic' skills. The exact nature of this development is hard to define generally as the form it took varied by sector. For example, in retail banking there is growing interest in employees acquiring a 'sales' or 'retail' mindset. In IT a number of interviewees referred to the need for more workers in the sector to have 'business acumen.' In contract cleaning, employers want workers to take on more responsibilities on the job. Construction employers are especially interested in workers who show 'initiative' and are prepared to take on multiple tasks. In metal and engineering, there is growing interest in teamwork, and workers with the skills to perform in an environment with fewer supervisors and take more responsibility for overseeing and solving production problems.

This finding from the case study was consistent with Mounier's observations about employers' growing interest in behavioural skills which is part of a growing interest in changing forms of employment and regulating work. This qualitative material helps to make sense of the statistics. The key issue is not simply the level and extent of training – it also concerns its character. This development was clearest in the industry that has devoted most effort to training reform in recent decades, ie the metal industry. In the metal industry, the growing interest in behavioural skill is associated with making the best of workers' available skills. There is little evidence from that sector of any serious activity by employers to raise average technical skills levels amongst metal and engineering workers.

Our empirical work demonstrates the power of Mounier's concepts. The changing nexus between work and skill in contemporary Australia is arguably best understood as arising from the interaction of the three different logics with their roots in changing employment dynamics and notions of citizenship. As he notes, the logics associated with cognitive, technical and behavioural skill do not exist in a vacuum. Rather they are 'embedded in labour relationships

and broader social structures'. The question is, how are we to understand this 'embeddedness.' In particular, how can we make sense of both general trends (eg declining employer expenditure on training) and divergence around those trends (eg some employers spending significantly more and some significantly less on training over time). It is to this issue that we now turn.

Understanding How General and Divergent Trends Cohere: Skill Ecosystems

In thinking about new approaches to understanding how work and skills are linked, a range of leading English language authors have also argued there is a need to move away from aggregated visions such as 'high' and 'low' skill economies. From the late 1980s, a body of international literature developed a profile of national economies as high skill (eg Germany) or low skill (eg Italy) (see for example Finegold & Soskice 1988; Crouch et. al. 1999). The goal of a 'high-skill economy' has driven industrial relations and training policy reform since the late 1980s. Although these broad-brush typologies are a useful beginning the leading authors have themselves engaged in a process of self-critique. In recognition of limitations to their earlier theories (eg high-skill regions and industries exist within low-skill nations), these scholars have begun to develop a more dynamic and discriminating model – skill ecosystems. The skill ecosystem model was originally applied to high-skill regions but we have extended the model conceptually and empirically. We define skill ecosystems as clusters of high, intermediate or low-level competencies in a particular region or industry shaped by interlocking networks of firms, markets and institutions. The model of skill ecosystems has important implications for policy concerning work and skill.

The origins of the concept of skill ecosystems lay in a body of work examining the character and sources of cross-national variations in skill profiles. The 'Oxford School' argued the UK had become locked into a 'low skill equilibrium' in which VET was both a 'product' and 'cause' of the UK's 'poor economic performance.' Consequently, popular diagnoses about the UK's poor VET performance such as market failure, cultural peculiarities of the British or a VET system too remote and disconnected from market pressures were misguided. The 'supply-side' VET reform agenda was destined to fail because the actions of firms and workers were 'rational' (Keep & Mayhew 1999: 4) in the light of the incentives created by state institutions and markets:

Unless and until first-order questions, such as choice of product market and competitive strategy, and consequent second order decisions about work organisation and job design, are confronted, the underlying causes of Britain's

skills problems will continue to be ignored. The danger of policies and institutional devices ... which concentrate on boosting the supply of qualifications and formalised skills and knowledge is that they appear to offer a relatively swift and simple short cut to a wide-ranging set of desired outcomes – increased economic competitiveness, greater productivity, rising GDP and greater social inclusion – without having to confront complex and difficult choices about how businesses choose to compete (Keep & Mayhew 1999: 12).

The UK's 'low skill equilibrium' was counterpoised against the 'high skill equilibrium' of Germany with a high proportion of high-skill, value-added production and a large proportion of the population with good foundational and intermediate skills. Unlike the UK, German firms have access to 'patient capital' due to the domination of bank-based finance, powerful employer associations and unions which prevent free-riding on training and low-wage competitive strategies, and the focus of German employers on high-skill production which creates incentives for young people to undergo apprenticeships as a ticket to a secure, well-paid job (Culpepper 1999: 45-47). The notion of a skill equilibrium led to further characterisations of national skill profiles (see Crouch, Finegold & Sako 1999: 225) and the key innovation of placing skill formation and VET in a wider framework gained wide acceptance:

Skills and knowledge are now widely recognised to form simply one element within a much wider matrix of factors that helps support high levels of economic performance. They have to be combined with other parts of a broader package of environmental, cultural and structural factors that can nurture and support high-performance, high value-added industries and sectors (Keep & Mayhew 1999: 4-5).

Some of the weaknesses associated with the notion of national skill equilibriums led to the conceptual innovation of skill ecosystems. Firstly, the notion of an equilibrium overstated the stability of current formations. Both high-skill and low-skill sectors are in a state of flux under pressures such as international competition and technological change. Secondly, the dichotomy between low-skill and high-skill was too simplistic leading Crouch et. al. (1999) to add a further, third dimension – intermediate skills. The significance of the extra layer is best illustrated by the reconsideration of the German system which they argue has been very successful in generating the supply and demand for intermediate skills but less so in ultra high-skill markets. Thirdly, one-dimensional national typologies were unable to capture regional and sectoral diversity.

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In particular, Crouch et. al. (1999) and Finegold (1999) have focused on the development of high-skill regions or ecosystems:

A geographical cluster of organisations (both firms and research institutions) employing staff with advanced, specialised skills in a particular industry and/or technology (Finegold 1999: 61).

Skill ecosystems generate a 'positive, mutually reinforcing dynamic' which creates 'strong inertial forces slowing any change in the skill composition' but like a biological system continues to evolve and adapt in response to external and internal stimuli (Ibid: 62-63). With similar conceptual underpinnings to the national skill equilibrium, highlighting the inter-dependence of institutions, markets and actors, the ecosystem is a more dynamic model capable of reconciling national and sub-national variations and sources of change and stability.

Finegold has primarily operationalised the skill ecosystem model in a comparative, empirical study of a famous high-skill ecosystem – the cluster of biomedical and hardware/software firms in California. Like a range of other commentators such as Reich (1992), Finegold believes the enormous wealth being generated by these high-technology firms and reduced the likelihood of their relocation to low-wage nations makes the encouragement of these clusters vitally important for advanced economies. Finegold sees four common elements to these high-skill ecosystems:

1. an external catalyst for the region's growth such as government demand/ investment and key individuals in the case of Silicon Valley;
2. fuel to sustain initial growth such as quality research universities to supply graduates and venture capital;
3. a supportive environment in the form of infrastructure (telecommunications, technology parks to allow collaboration and collective capital formation, international airports etc.), a lax regulatory regime which supports risk-taking and a living environment attractive to knowledge workers;
4. interdependence between firms which facilitates learning, adaptation and development.

This list is an adaptation of Porter's (1990) 'diamond model' and consequently, unlike Reich, Finegold points to the existence of different national models for developing high-skill ecosystems. The exact mechanisms through which these conditions for high-skill ecosystems have been established vary from Germany's state-sponsored research/technology transfers, Italy's family/community networks in small enterprises or the hub-spoke shaped corporations of Japan.

The case studies and life-histories in this project illustrate the possibilities for extending and spatially reconstituting the ecosystem model beyond high-skill clusters. For these authors, the policy challenge is: how do you foster high-skill ecosystems without generating US-style inequality and large tracts of low-skill employment? But beyond noting that high-skilled ecosystems represent a small proportion of employment (Crouch et. al. 1999) and therefore should not become the sole focus of policy, these authors do not apply the model to other types of skill ecosystems. In our research, the clearest examples of distinct skill ecosystems were found in Information Technology, Family Support Services and Cleaning. Our research in these industries allows us to reach the following categories of skill ecosystems:

- high value-added/skilled (information technology)
- high social value/intermediate (family support)
- low value-added/routine (cleaning)

Information technology is one of the archetypal high value-added sectors with large numbers of jobs requiring advanced, specialist skills. Family support services is an area of tremendous employment growth with challenging work which is socially valuable. Cleaning is one example of a sector that is a major employer of routine, low value-added service labour. These examples are merely illustrative: the key point is that policy needs to move beyond its preoccupation with the unattainable 'high skill economy' to address a diverse range of ecosystems.

Our reading of the international literature and applied empirical work leads us to the conclusion that the key features structuring any regional or sectoral skill ecosystem are:

- business settings (eg type of product market, competitive strategies, business organisation/networks, financial system);
- institutional and policy frameworks (VET and Non-VET);
- modes of engaging labour (eg labour hire);
- structure of jobs (eg job design, work organisation);
- level and type of skill formation (eg apprenticeships, informal on-the-job training).

Analysing the interaction between these inter-locking forces is necessary to understand changes to approaches to skill formation for a particular region or sector.

The ecosystem model is not only applicable to the emergence of new skill ecosystems such as Californian biomedical firms but it is also useful for comprehending the profound upheavals and change in the mature sectors such

as banking and metal/engineering. In banking, changes in the business setting (eg global competition, the increasing preoccupation with maximising shareholder value) and institutional/policy frameworks (eg financial deregulation) have led to competitive strategies focused on 'high net worth individuals'. With the shift in competitive strategies away from standard retail banking, the stable, unified internal labour markets have declined and bank work has fragmented around a culture of different types of sellers leading to changes to skill formation arrangements.

In metal and engineering, global excess capacity and intense competition has undermined the capacity of firms to generate value-added. Firms have responded either by shifting into higher value-added market segments or 'sweating' existing assets. Available labour capacity utilisation has been intensified by changes in job structure (broadbanding, reduced demarcations etc), increased reliance on non-standard employment to meet demand fluctuations and cost-cutting through measures such reduced training expenditure. The pool of skilled metal and engineering tradespersons is consequently shrinking. VET policy is clearly but one of the forces shaping changes to skill formation and deployment.

Identifying skill ecosystems as a means of thinking through issues associated with the linkages between work and skill has a number of important analytical and policy implications:

- high-skill ecosystems are important as the engines of economic growth and development but policy needs to keep in mind ecosystems which are important for the social value of their work or as generators of employment;
- ecosystems are themselves internally diverse. The IT sector, for instance, is broadly polarised between high-skill and routinised work (eg 'netslaves'). Consequently, even in the pursuit of these high-skill ecosystems, policy needs to be mindful of the needs of employees in routinised jobs;
- policy does make a difference. It is a crucial component in the dynamics that structure the emergence and character of ecosystems. In Finegold's work, public policy is a major influence upon three of the four elements behind high-skill ecosystems. In our case-studies, policy was similarly a major influence on the evolution of skill formation and deployment;
- VET policy and skill formation need to be located within a broader matrix of influences and policy domains.

The key challenge for policy-makers then is simply this: how to combine a diverse range of policy instruments across a wide range of portfolios in order to manage a diverse bundle of ecosystems.

Rethinking Objectives

In thinking about the future we need to be clear about both what is achievable and what we want to achieve. An understanding of the changing nature of work, changing approaches to skill formation and how they both cohere in skill ecosystems provides important insights about what is emerging. But such understandings do not help answer questions like: Where should we be going? What should we be attempting to achieve in the future?

Questions such as these are particularly challenging. At heart they are ethical in nature. As such there is no 'correct' answer to them. But this does not mean we should avoid them. Ultimately policy is informed by ethical preferences. We believe it is important to make these manifest and outline why we prefer the position we do.

The importance of distinguishing work from labour

A useful place to start a consideration of objectives is to reflect on what workers themselves regard as the most important aspects of work. In July 2001 the NSW Labor Council commissioned a comprehensive study of employees views about working life. One of the key questions asked was:

What would you say is the most important factor to you making your work a positive experience?

The responses to this question are summarised in Table 7.

TABLE 7: FACTORS IN MAKING WORK A POSITIVE EXPERIENCE, AUSTRALIA, 2001

Factor	Percentage of Respondents
Interesting and Satisfying Work	29
Co-Workers Getting Along	26
Fair and Reasonable Pay	7
Recognition of Efforts	7
Control Over the Way You Do Work	5
Other	26

Source: NSW Labor Council/ACIRRT working life survey 2001.

Population: All employees. Sample size: 1,000

Note: 'Other' includes being treated well by immediate manager, trust in senior management, balance between work and family time, high job security, good career prospects, suitable amount of work to do, good health and safety standards, acceptable stress levels, and no harassment/discrimination.

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Remarkably, two factors were overwhelmingly regarded as important for making work a positive experience: 'interesting and satisfying work' and getting along with co-workers. Clearly, the content and immediate social setting of work are very important for people enjoying paid employment.

It is interesting to note that these issues have also been identified as important by a growing number of researchers interested in moral and ethical issues associated with paid employment. Guy Standing, Senior Economist at the ILO in Geneva, has recently argued that it is important to distinguish 'work' from 'labour'. (Standing, 1999, Chapter 1) For him 'work is defined as rounded activity combining creative, conceptual and analytical thinking and the use of manual aptitudes – the *vita activa* of human existence' (ibid: 3). Labour, on the other hand, is quite different. He notes that the latin basis of the term (*laborum*) meant 'toil, distress, trouble' (ibid: 4). As such he defines labour as 'arduous... and conveys of sense of pain... We may define labour as activity done under some duress, and some sense of control by others or by institutions or by technology, or more likely by a combination of all three' (ibid). Standing argues that distinguishing between work and labour has deep roots in Western philosophy:

The distinction initially associated with Aristotle between work as thinking and work as production was developed by Enlightenment artists and poets, and then by critics such as Thomas Carlyle and John Ruskin. In doing so, they went beyond the Puritan work ethic propounded by Martin Luther and later linked by Max Weber to the development of capitalism, and which has been so influential on twentieth century labour economics and its basis in utilitarianism (ibid: 5-6).

William Morris was particularly forceful in his elaboration of the distinction. As he noted in *Useful Work versus Useless Toil*:

A man at work is exercising the energies of his mind and soul as well as of his body. Memory and imagination help him as he works. Not only his own thoughts, but the thoughts of the men of past ages guide his hands; and, as part of the human race, he creates. If we work thus we shall be men, and days will be happy and eventful (quoted in Standing: 8).

Similar sentiments have also been noted by John Rawls, arguably one of the greatest moral philosophers of our time. He outlined what he called 'the Aristotelian Principle':

Other things equal, human beings enjoy the exercise of their realised capacities (the trained abilities), and this enjoyment increases the more the capacity is realised, or the greater its complexity (Rawls cited in Standing p8).

In distinguishing between work and labour on the terms outlined by Standing we must be careful not to assume that the distinction is valid simply because precedents for it can be found in a line of leading thinkers stretching from Aristotle through to Rawls. Rather, it is because Standing's characterisation of Western thought on the subject is a distinctive one. Aristotle, for example, was well known for his acceptance of quite unequal divisions of labour. For example, in *Politics* he noted:

The freeman rules over the slave after another manner from that in which the male rules over the female, or the man over the child; although the parts of the soul are present in all of them, they are present in different degrees. For the slave has no deliberative faculty at all; the woman has, but it is without authority, and the child has, but it is immature (cited in Murphy 1993: 57).⁸

Laura Downs has convincingly shown how Aristotelian notions of order underpinned the work opportunities provided to women by British engineering employers during and after the first world war. Whereas males could be either skilled tradesmen or labourers, women were regarded as being uniquely placed to perform a new role associated with the onset of widespread repetitive manufacture: routine process work. This was because of their alleged natural virtues of self-discipline and greater manual dexterity. As she puts it, it was:

A logic in which social being is seen to be manifested in the particular skills and abilities possessed by distinct categories of human: female, skilled male, unskilled labourer, young boy. It is a logic that is fundamentally Aristotelian in nature, in that it casts social difference in the more essentialist terms of categorical (versus individual) differences in ability, and then welds the resulting diversity into a coherent whole by arraying all on a vertical chain (Downs, p309).

Equally, Rawls is better known for his theories of justice in the distribution of goods. As Adina Schwartz has noted, issues associated with what people actually do at work receives only one paragraph in *The Theory of Justice* (see Murphy 1993: 3).⁹

In working with the distinction between work and labour we need to exercise great care in elaborating on its nature and relevance. The writer who has done most in this regard is James Murphy (1993). His primary objective is to develop a coherent theory of the justice in production or what he calls a rigorous 'moral economy of labour'. He does this through a radical reworking of Aristotelian categories. Having done

⁸ For more details on Aristotle's sociology and ethical philosophy of differences prevailing in his own time, see G E M de Ste Croix (1981: 77-80, 179 – 184).

⁹ It is also worth noting Robert Nozick's position on this question: issues associated with what people do at work are purely matters of individual preference and have nothing to do with theories of justice (cited by Murphy 1993: 3).

this he then provides a searching critique of the founders of modern economic discourse – Adam Smith and Karl Marx. He argues that:

Classical political economy [both liberal and Marxian] is characterised by a twofold reduction of labor to efficiency and to nature; labor is described both as the instrumental manipulation of objects and as man's metabolism with nature. What do these two reductions have to do with each other? It turns out that they are united in Aristotle's doctrine of the economy of nature – a doctrine that is pervasive in classical political economy (Murphy 1993: 12-13).

Murphy documents in detail how both Adam Smith and Karl Marx assumed that efficiency in production is essentially a technical, indeed, quasi-natural issue. It is not a realm for moral deliberation or choice. In this he distinguishes production from action. Murphy (1993: 13) notes that Aristotle's influence on Western thought has been pervasive in this regard. As he puts it:

From Aristotle to Habermas, we find agreement that labor is the realm of technical and natural necessity whereas action is the realm of moral freedom and justice.

Murphy (1993: 110-11) argues that:

Aristotle's attempts to distinguish action from production are not very successful. He offers these criteria for action: it is its own end; it is governed by moral reason; and it also shapes the agent. Aristotle's insistence that production concerns only the product, and not the producer, blinds him to the moral dimension of productive activity. Indeed, the treatment of labor as a mere 'factor of production' in modern economic theory and practice similarly ignores the important insight that production fashions producers as much as products.

Hence labour is not just like any other input as it is affected by the process of production. In this regard he argues that an understanding of how labour is deployed in production requires an understanding of what he calls natural, customary and stipulated determinants.

While many economists see the deployment of labour as a technical (or quasi-natural) issue, Murphy clarifies concepts which allow for an assessment of how custom and stipulation (ie the realm of social affect labour. In short, it is not as if there is 'an economic' study of labour severable from the 'social' study of labour. Implicit in an economic analysis is a social conception of labour. This creates the space for studying labour's management. Labour's deployment is not simply a question of allowing it to be used most efficiently by management and denouncing social practices that get in the way of such deployments. Rather, the key issue is understanding just what arrangements have

been established to deploy it. This is a very open, empirical question.

At the core of his argument is the necessity of distinguishing between the technical and social division of labour. The technical division of labour refers to the organisation of the production processes in particular tasks. The social division of labour concerns the allocation of workers to undertake those tasks. Typically economic analysis assumes the technical division of labour drives the social division of labour. Reworking Aristotle's basic notions of order and human activity Murphy argues that the key concepts for understanding order are nature, custom and stipulation. Hence, while the technical division of labour may be tightly defined by 'technical' and quasi-natural forces, the allocation of workers to it is not so constrained. Rather, forces of custom or conscious stipulation often shape this process. It is because of this, Murphy argues, that issues relating to work and production are saturated with ethical and moral concerns. Many social divisions of labour are compatible with different (but equally technically efficient) configurations of tasks.

Murphy's work clearly builds on a long tradition of social and historical research (eg Braverman 1974, Marglin 1974) and subsequent labour process and labour history debates. His text is particularly important, however, in that he clarifies the categories of policy concern. Most importantly he establishes that issues of work are not simply matters of technical or quasi-natural necessity. Questions of social choice are real. And in this context he argues that Aristotle's principles for virtuous activity in general are just as relevant to issues surrounding work. In particular he believe issues about work need to be informed by sentiments such as the following:

What is most desirable for each and every man is the highest he is capable of attaining [Aristotle, Politics, 1333a29].

Such an outcome is more likely to occur where people are given an opportunity to work rather than face the obligation of having to labour.

Giving those who have to labour the right to flourish

The previous section noted the growing literature which has highlighted the importance of distinguishing between work and labour for both analytical and ethical purposes. But how relevant is this distinction across the labour market? Clearly, wherever possible, policy should encourage work and not merely labour. But there will be limits to what can be achieved economy-wide. For example, in 1997 a large-scale study examined the nature of job vacancies offered by 10,000 employers in Western Sydney (Fairfield City Council/GROW Employment Council, 1997). Vacancies were defined as falling into one of 220 categories. The study



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noted that 20 percent of vacancies were for five jobs: shop assistant (food and drink products), truck driver, storeperson, check out operator and general waiter and that around half (45 percent) were for 14 occupations of a similar nature. Nearly all of these jobs required less than six weeks on-the-job training to become fully proficient. The challenge of turning opportunities to labour such as these into opportunities for work will be immense.

The challenges were particularly clearly illustrated in several of the life histories undertaken for this project. Michael, for example, a worker who moved between contract cleaning and child care was trapped in low paid employment. One of the greatest barriers to him acquiring more skills for advancement was the need to work long hours because of the low rates of pay prevailing in these occupations. Moreover, the poor financial returns for deepening his skills in child care work also militated against him taking on further study. The chances of Michael flourishing at work in the Aristotelian sense are limited both by the nature of cleaning work and the incursion low rates of pay make on his waking hours. Clearly when thinking about flourishing we need to also keep in mind extrinsic aspect of work (eg wages, hours of work) and opportunities to undertake activities outside paid employment as well as the content of the work performed.

Given that many vacancies in the labour market offer opportunities to labour rather than work it is vital that a policy environment is created where all workers get rates of pay and hours of employment that are consistent with standards rising for citizens living in a civilised society. Equally, consideration also needs to be given to helping people flourish beyond their employment situation. This means consideration will have to be given to identifying how they will get the time and money to undertake such activity. This does not just simply concern wages and conditions of employment. It also goes to their rights to live beyond paid employment – especially rights to career breaks or sabbaticals. This is an area we will take up in our recommendations. This issue also highlights that when thinking about policy on work and skill we need to think more broadly about the areas of policy relevant to these matters. It is to this idea that we now turn.

Repositioning policy on work and skills: while skills are not ‘the answer,’ there can be ‘no answer’ without skills

As noted at the beginning of this paper high expectations have informed policy on work and skills since the mid-1980s. It is now clear these were unrealistic. Restructuring work and skills policy has facilitated but not driven change. This was evident in several of the industry case studies. In metal and engineering, for example, changing levels of international competition have had a major impact on the structure of that sector. Work and skill formation reforms

have assisted in ensuring labour related issues have contributed to better labour use, but they have not been the dominant force for change. Yet this does not mean matters concerning work and skills should not be a matter of policy concern. Rather, more attention needs to be devoted to thinking through the wider policy mix and reforming the broader context in which policy on work and skills is developed. To help think through new approaches to how we should conceive policy on the issue of work and skills, Kaye Schofield scrutinised the recent literature on changing approaches to policy development and implementation in advanced economies. The major implications of this work can be summarised as follows.

Australia is now a very different place from the Australia of 15 years ago when training reform was first conceived. At the time the policy challenge was defined as requiring a fundamentally new approach to VET. As in the second chapter, the policy challenges on work and skill arising from fundamental social and economic change are multiplying. Yet much policy remains frozen in the historical moment of conception of VET as a discrete object of policy concern. While many of its macro-level aspirations remain valid, the limits of the current policy repertoire and market-driven reforms have been reached. A new generation of policy on work and skill is now needed.

Policy renewal in these subjects is dependent on developing fresh perspectives in two interdependent areas:

- policy content: the social and economic assumptions on which policy rests, the social and economic directions it pursues and the specific policy instruments chosen to give them effect;
- policy context: the policy-making system through which policy options are created and considered and policy directions are chosen.

When thinking about policy, we need to consider both the policy ‘content’ and context. We need to be careful not to propose just another ‘program’ which assumes current structural arrangements and agents are adequate for addressing the key challenges of the context in which they operate. Instead we need to think more broadly about the wider setting in which policy and work is located and who is involved in developing and implementing policy initiatives.

Creating a dynamic forward-looking context through which policy innovation can occur is a pre-condition for policy change. This requires action on multiple fronts:

- opening up the policy system to a wider range of informants including the community sector, academics, think-tanks and putting a wider range of clients back into the policy-making system;

- re-conceiving clients in a fresh way – as networks, systems, supply chains and regions rather than simply as ‘individuals’ and ‘industry’;
- balancing the current top-down approach to policy with a stronger emphasis on bottom-up policy-making;
- factoring place back into the policy system, alongside client and industry;
- moving to an evidence-based approach to policy-making, including making better use of controlled pilots before introducing sweeping policy changes;
- improving policy capability within government;
- creating better ways for governments to work with employers and trade unions;
- building a culture in which national and state governments can work more collaboratively on policy development;
- bringing together policy formulation and policy implementation that have been systematically separated along purchaser/provider and national/state lines;
- acknowledging the central role of the public provider, even within a competitive training market, in turning public policy into practice.

But most of all, renewal of the policy-making system surrounding work and skill means re-conceiving it in a holistic way as a cross-cutting issue.

While ‘VET’, as an area of government activity, is located within particular bureaucratic or ministerial boundaries, its core business is skills formation, and skills formation is not and can never be a stand-alone issue. By itself, skills formation is not a solution to Australia’s global competitiveness nor to growing inequality. So long as VET is considered this way, VET will fall short of the expectations placed upon it.

Skills formation and employment have an enduring symbiotic relationship and share a similar policy context but have been split along national/state lines. They need to be reintegrated under the heading of active labour market policies and then linked systematically to social, educational, industrial, trade, competition and tax policies.

But while the link between skills formation and employment/unemployment is critical, what is even more important is the poverty and lack of income security among an increasingly large number of people who are working (Standing 1999; Watson and Buchanan 2000; Watson 2001). Skills formation must therefore be viewed as an essential dimension of macro policies to maintain growth and full employment and minimum wage and labour policies that directly support wages in the lower part of the wage distribution (Handel 2000). Skills formation policies must be developed in this context, not in a closed world of traditional VET policy actors, institutions and culture.

When policy on work and skill is conceived as a cross-cutting or horizontal issue, then the challenges become clearer:

- to establish systems for systematic dialogue between different policy communities, including international policy communities;
- focusing VET policy-makers on improved coherence, and improved collaboration;
- overcoming the fragmentation of public policy along departmental and ministerial portfolio lines within a Westminster system of governance and creating policy-making systems which transcend the boundaries of established policy fields;
- achieving coherence through Cabinet-level attention to skills formation policy only as part of a wider and integrated suite of policy interventions
- establishing ways of dealing with policy conflict;
- developing policy partnerships with the broader community;
- constructing better systems for information exchange between VET and other horizontally linked policy areas.

As such, while skills are not the answer to ensuring future developments at work evolve in a way that benefit employers, workers and the community at large, there can be no answer without skills. Such a conclusion has major implications for the role of policy on work and skills in the wider public policy mix.



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The purpose of this research has been to collect and analyse a substantial body of comparative, historical and contemporary evidence on the transformations of work and skills. The research demonstrates the complex and interconnected nature of these transformations, their links with the major social, economic and political forces, and their profound impacts.

The research has also shown that public policy is not an inert by-product or mere servant of forces such as globalisation and the market. On the contrary, governments and their actions continue to shape behaviour and outcomes in both labour markets and the personal sphere, as they have done for over a century (Castles 1998:197). This is not an argument for big government but for smarter governance.

Public policy inevitably involves making choices about the way governments should deal with these forces and influence the way the future should unfold. A continuing theme of the research has been that there are always policy alternatives and there are always policy choices to be made. The vision – and the challenge – is to create the nucleus of a new and more innovative policy system for these new times.

Therefore, in presenting our findings we have aimed not only to enhance knowledge and understanding of work and skills. The research suggests a need to stimulate thinking about policy shifts that could help achieve three broad goals:

- encourage investment not in skills alone but in bundles of innovative practices that help develop, utilise, and retain a skilled workforce, rewarding jobs and help businesses compete;
- eliminate or reduce unnecessary or unwarranted adverse effects on citizens and the economy from transformations in the labour market and the community;
- harness the full capacity of government, community and industry to open up new possibilities for skill, innovation, productivity, earnings and security.

The research challenges many of the fundamental assumptions on which VET policy is built. It points to opportunities for policy re-assessment ranging from the big picture level (such as the social and economic consequences of almost limitless work flexibility without worker security) through to the program level (such as programs to deal with new skills sets in new and emerging industries).

We do not set out an exhaustive list of improvements in policy and systems. VET policy-makers are better placed to do this. Rather we have chosen to make just four recommendations that we believe are fundamental to the

vision of creating a new policy system for new times. In making these proposals, we have been guided by the compelling case made by the research evidence that skills formation is not the answer to the problems of work in the future but that there can be no answer without skills.

Our recommendations encompass the four dimensions of the VET policy system: the policy culture (values & ideas), institutions (machinery of government), resources and policy actors.

Develop a Whole-of-Government Approach to Skill Formation

Our first two recommendations advocate a repositioning of policy on work and skills within the wider policy mix. This concerns both broadening the objectives of the wider policy mix to ensure that issues of work and skill become a (if not the) defining feature of this mix. In practical terms, it concerns the need for BVET to conduct an audit of all NSW Government policies and practices to assess how they impact on the skill formation, skill utilisation and the quality of work provided in the State.

Broadening Objectives: Repositioning policy on work and skill away from being a discrete domain to becoming the defining feature of the overall policy mix

For too long policy concerning work and skill has been regarded as a specialised domain. At best it has been regarded as a complement to wider policy frameworks. Even at the height of the 'skill formation led recovery' era, policy on work and skills operated within very fixed macroeconomic, industry, tax and public expenditure policy settings. The failure of that earlier generation of work and skill formation policies to achieve their objectives was not just due to the content of these policies. It was also the result of the wider policy mix in which they were located.

It is important that this situation changes. Policy on work and skills should not be regarded as subordinate to 'higher priority' objectives (eg 'growth at any price and in any form'). If the overall policy mix does not improve the level of work and skill it needs to be restructured and a policy mix that does achieve this outcome needs to be devised. For example, we need to aim for growth in quality work opportunities. In addition, because not all people will be able to find work that enhances human flourishing, other aspects of the policy mix need to be directed at generating and distributing resources to people so that they can pursue such opportunities beyond paid employment. As such the question is not simply about more growth or less growth. Rather the key challenge is to create levels and forms of growth that enhance the opportunities for work and skill development.

BVET audit of NSW Government policy and practice across portfolios

BVET has a mandate to advise government on VET policies in the context of state and national priorities and objectives. By thinking beyond the bounds of the formal VET sector and training with the more cross-cutting idea of skills formation, this mandate takes on new whole-of-government dimensions both horizontally across NSW and vertically between the NSW Government and the Commonwealth Government. The research points to the emergence of policy issues which do not sit neatly inside a single portfolio.

There are indications of significant gains from the consolidation of all education and training agencies within a single agency (DET). A more seamless approach to VET in NSW appears to have developed, consistent with a life-cycle approach. However, the links with other government agencies have not always been as purposeful or as creative as they might be.

Virtually every NSW Government agency has some portfolio responsibility for skill formation – agriculture (especially extension programs), public works, health, family and community services, aged services, youth services, services to women, environmental protection, sport and recreation, gaming and racing, industrial relations, correctional services, treasury and state and regional development to name just a few. While these responsibilities are exercised in relation to the agency's own staff, they are also exercised in relation to the form and content of work and skill more broadly. Agencies exercise these internal and external responsibilities through a range of policy instruments including regulatory, financial and information transfer instruments which have a profound individual and cumulative impact both on skills formation generally and on the VET sector specifically.

We see at least two options for the VET sector here. The first is to conceive VET in sectoral terms only, to view its charter as being responsive to the policies of other NSW Government agencies and to seek greater policy co-ordination through such mechanisms as an inter-departmental committee. This option would consolidate and continue the current trajectory and re-affirm supply as the primary function of the VET sector.

A more promising option is for BVET to assume the role of lead agency on skills formation throughout the NSW Government, attentive to both demand and supply and mindful of the importance of both formal and informal learning in skills formation. As the lead agency it would aim to build a shared intellectual and policy framework and a shared approach to skill formation across NSW, fostering and guiding whole-of-government analysis and the

development of innovative, whole-of-government proposals for work and skill.

This is an ambitious idea. While some might see it as empire building, this interpretation would be a mistake. BVET would not seek to control but to lead. BVET would serve as a policy entrepreneur, identifying opportunities to link, connect and innovate.

This option would also need to take a very practical albeit experimental form. We therefore propose that BVET undertakes a rigorous stocktake across all NSW government agencies to produce a benchmark report on government and skill formation and use in NSW. This stocktake would identify within the different agencies the theoretical research, statistics, applied research and modelling, environmental scanning, trends analysis and forecasting, policy analysis and advice, consultations, relationships, communications and program design, implementation, monitoring and evaluation activities which relate to or impact significantly on skill formation generally and the VET sector specifically (Deputy Minister's Task Force 1996). The NSW Government has already shown remarkable administrative capability in the coordination achieved to deliver the highly successful Olympic Games. We are proposing that this obvious capability be deepened and extended to provide more effective approaches to the development and deployment of skills at work.

Establishing skill formation and skill use as an issue which cuts across state and Commonwealth social and economic policy is probably a larger challenge but equally important. VET policy-makers around Australia are increasingly aware of the impact of Commonwealth policies on the structure and organisation of work and skills formation. Most particularly the effect of policies for employment, social security, family and community services, industrial relations, taxation, industry, science and technology. Work and skill is being steadily shaped by policies such as New Apprenticeships, social security reforms, innovations policy, industrial relations reforms and higher education policies but these Commonwealth policy decisions are made largely outside the ANTA processes and outside the VET sector. Where labour market policy implementation is contracted out to third parties such as New Apprenticeship Centres or Job Network organisations, it is even more difficult to find a way to ensure that VET policies remain coherently focused on better work and better skills.

Again, NSW has at least two options. One option is to press through the ANTA arrangements to establish constructive and mutually beneficial processes by which policies and programs on skill formation can be coherently linked and contribute to the relevant social and economic policies and programs of the Commonwealth. A second option is for the



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NSW Government to enter into discussions with the Commonwealth directly to achieve greater coordination in initiatives having an impact on work and skill.

Recommendation 1: That the NSW Government give serious consideration to repositioning policy on work and skills so that it becomes the defining feature of the overall mix of public policies used to govern the state.

Recommendation 2: That BVET audit how current government policies and practices impact on skill formation, skill use and the notion of work defined as something more than being obliged to labour.

Establish a 'Work, Skills and Innovation Initiative'

This research has emphasised the interdependence of work and skills. It has questioned the assumption of skills-led competitiveness as industry infrastructure changes, markets converge and supply and value chains are all transformed. It has pointed to the inefficiencies and inequities in an excessive policy reliance on enterprises for skill formation. It has highlighted the limitations of an approach to skill formation centred on career pathways and an ever-expanding suite of recognised occupational qualifications. It has found that a 'one size fits all' approach to training content, which emphasises the need for job-specific technical skills without adequate attention to the need for cognitive and work-relevant behavioural skills, is conceptually weak and does not meet the practical needs of either business or individuals. It has proposed industry sectors as sustainable units of analysis for both policy formulation and policy implementation. It has examined the literature on industry restructuring, high-tech clusters, regional competitiveness and skill equilibriums and developed the concept of skill ecosystems within sectors and across regions. And it has identified weaknesses in the policy-making environment.

While skills are clearly positioned in a wider matrix of factors affecting work, economic performance and social progress, no fully coherent policy alternative has yet emerged and so specific policy prescriptions would be premature. Rather, such circumstances call for experimentation with innovative models that will lead to general principles or approaches that improve work, skill and production outcomes.

The international literature indicates that individual firms, employer organisations, trade unions, industry networks, communities, regions, national, sub-national and local government agencies, training providers and researchers are already collaborating in formal and informal networks and

alliances on a variety of approaches to achieve optimal outcomes. But there is limited understanding of exactly how these collaborative dynamics play out in real life settings within industries and regions and how they can inform policy making.

We therefore recommend an applied R&D approach whereby BVET facilitates a work, skills and innovation initiative to achieve two goals:

- Identify and independently document existing innovations in industry sectors and/or localities where investment in skills development is linked with a wider mix of investment – both tangible (plant and equipment) and intangible investment (such as R&D, intellectual property, information technology) – to generate a new performance dynamic. Here we are thinking not just of high-tech clusters but also of industries that are achieving the full benefits of wide collaboration across the entire value chain. From this process of documenting what works and what does not in the context of employment and training outcomes, lessons learned about strategies, activities, and outcomes can be distilled, key principles identified and used to inform policy-making.
- In association with both private and public organisations, facilitate a limited number of demonstration projects that offer a coherent skills development and deployment strategy linked explicitly and measurably to economic growth, industry restructuring and decent work. Projects should aim to simultaneously:
 - reduce discrepancies between economic 'winners' and 'losers';
 - promote quality jobs and greater job security;
 - develop interlocking but different skill sets at the high; middle and low end of the skills continuum and then deploy those skills;
 - achieve sustainable business improvements; and
 - demonstrate there is no cost-shifting from the private to the public sector.

The research strongly indicates that these demonstration projects should be demand rather than supply driven and that agents such as employer associations, trade unions and recruitment agents should be explicitly fostered. These demonstration projects should be subjected to fine-grained empirical analysis over time to assess the extent to which they have achieved their objectives.

As we arrive at a better understanding of the incentive structures for the development and deployment of skill in firms and of intermediary structures linking production networks, citizen workers and labour market institutions, more specific actions based on this new knowledge will emerge.

Recommendation 3: That BVET sponsor a new 'work, skills and innovation initiative' to (a) document existing successful initiatives and company successes and (b) foster the development and evolution of a number of new demonstration ecosystems.

Foster a New Policy Network for Skill Formation

As the previous sections make explicit, we are proposing a strategic re-positioning of skill formation policy and practice as a cross-cutting issue within a wider matrix of social and economic policy. We are also recommending experimentation with different models that grapple with the complexity of today's real-world innovation processes. Neither of these strategies can be pursued successfully without a widening of the VET policy network beyond its current institutional borders and participants.

This means that the existing arrangements through which a relatively small group of people and organisations are formally assigned policy-making roles and influence in VET will need to create a space for a new, more fluid arrangement which may mean less control by existing stakeholders but which offers more potential for challenging the status quo and promoting innovation.

The research literature indicates that 'policy networks' can be seen from many perspectives, two of which are of particular interest in the context of this report. The first is where policy networks are seen as linkages for the purposes of bargaining (reconciliation of different interests). In some but not all respects, the current VET policy network, with its emphasis on one-off stakeholder consultation as a key means of gathering evidence to inform specific areas of policy-making could be characterised this way.

However, 'policy networks' can be viewed from a different perspective, that of linkages which use interaction and communication for problem-solving. It is in this sense that we see the development of a skills formation policy network to be an important strategic direction for VET in NSW (and nationally).

As Benz has noted:

Networks do not directly serve for decision-making but for the information, communication and exercise of influence in the preparation of decisions. Interaction in networks is not exposed to constraints such as formal rules or assignments of responsibility. Besides, networks reduce transaction cost in situations of complex decision-making as they provide a basis of common knowledge, experience and normative orientation. They also reduce

insecurity by promoting the mutual exchange of information. Finally, networks can counterbalance power asymmetries by providing additional channels of influence beyond the formal structures (Börzel 1997 citing Benz 1992).

While the existing formal structure built around BVET, DET and state ITABS would continue to exercise their assigned decision-making function, decision-making would draw on and be informed by a more diverse set of expertise and perspectives. It should include but not be dominated by the training community. It must gather together a good mix of expertise across the spectrum of social and economic policy. Governments, firms, employer associations, labour hire and employment agents, trade unions, community organisations, professional associations, academics and other researchers and leading professional services consultancies all have a contribution to make to problem-solving in VET.

A policy network, which need not be large or complex, could provide an open inter-disciplinary forum to share information and exchange data about employment and training and the wider policy context, identify key policy dilemmas, examine various policy instruments that government could use to effect better employment and training outcomes for industries, firms, individuals and communities and help to identify the cumulative effect of those instruments on practice. The network could play an important role in bringing evidence to bear on policy decisions and subjecting VET policy decisions to informed, constructive critique. It could also be an important mechanism for policy learning.

To link the network to the decision-making structures, BVET could convene an important annual event at which the 'state of VET policy in NSW' is reviewed and advanced.

Recommendation 4: BVET should consider ways of enlarging the network of agents involved in developing and implementing policy concerning skill formation and deployment. As a minimum BVET should consider an annual meeting facilitating communication between all levels.

Move from Funding Training to Funding Skills Formation

We agree with Considine's view that "... policy systems are... a means for the generation, organisation and distribution of resources" (Considine 1994: 33). In addition, policies on measuring and reporting on the use of these resources influence and constrain what can be done.

The current VET effort is measured and publicly reported against a relatively narrow set of inputs, outputs and outcomes. But more importantly, resources are



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overwhelmingly allocated to NSW and within NSW on just one outcome – actual student contact hours (ASCH). ASCH numbers now drive VET in NSW and throughout Australia. It has been a useful device to achieve substantial management efficiencies and to create a more performance-based and targeted system, and it has also served to increase participation.

But there has been a cost. The funding system based exclusively on ASCH provides incentives for quantity but disincentives for quality. It rewards growth, irrespective of value. It ignores the shift from training to learning in workplaces. It limits the capacity of the VET sector to integrate training with other social and economic policies, even though research indicates that training may yield greater return if bundled with other workplace practices (Brookings Institution 2000). It focuses attention on now rather than the future. And, importantly, it limits the scope for innovative and flexible initiatives that might yield better employment and training outcomes than stand-alone training delivery.

We see a need to develop a new framework for funding VET to provide and promote skill formation in NSW and nationally, as distinct from a narrowly defined band of training activities. The suggestion here is not to abandon ASCH, but to break out and go beyond the dominant mindset it creates and to recognise that other outcomes such as productivity, earnings, security, placement in decent work and building skill ecosystems and clusters are likely to signal a better return on investment in VET.

Further work would be necessary to identify the political and technical dimensions of funding on a richer database of value-relevant outcomes. It would mean formulating a coherent reporting framework to capture those more diffuse investments. The task is necessary and challenging, but certainly not impossible.

As a matter of priority we believe immediate consideration needs to be given to the development of two new units of

funding beyond ASCH. The first concerns skill ecosystems. Given the importance of skill ecosystems identified in this project, how could public funds be used to help nurture the formation of more efficient, desirable and fair ecosystems?

The second concerns the individual. Too often debates about funding turn on issues of ‘vouchers’ or ‘direct public provision’. We find this way of conceiving of options unhelpful. Instead, given the growth of non-standard forms of employment we believe more attention needs to be devoted to issues such as how the growing numbers of non-standard workers are going to get the time and resources needed to develop their skills. It is in this context that we believe labour market rights such as long service leave could be made more relevant to current circumstances.

The increase in the proportion of workers engaged on non-standard bases means fewer workers are gaining rights to long service leave. This is a problem that has been confronted and solved in the construction industry. In that industry rights to long service leave are accrued against the industry, irrespective of employment status (in most States) and depend solely on hours worked in the sector. Industry based long service leave arrangements could potentially offer a model for how career break schemes could be financed in a way that limited demands on public expenditure. The debate on career break rights is intensifying in Europe. Australia’s long service arrangements provide a novel infrastructure on which to build new approaches to financing lifelong learning. Reflections on the experiences of long service leave could also contribute to the debate on how best to establish new structures in the labour market that enhance both fairness and efficiency in the transition of skills in the future.

Recommendation 5: That BVET investigate other key categories for monitoring and distributing their funding. Special attention needs to be given to considering the potential for assisting/promoting funding for skill ecosystems and a comprehensive system of career breaks.

CONCLUSION: Choices about the future

As noted at the beginning of this report this project examined three questions. We are now in a position to answer them.

How are work and skills linked?

There are three logics of skill: one concerning the development and deployment of cognitive abilities, another concerning technical competencies and a third concerning behavioural capacities. These three logics do not operate in isolation but are usually embedded in wider ecosystems shaped by business settings, institutional and policy frameworks. Historically, Australian policy frameworks on work and skill were underpinned by the vision of 'Harvester Man'. Efforts were made to restructure the model into a more encompassing general 'wage earner' model of employment by breaking down the gender segmentation and divisions between 'skilled' (eg trades) and 'unskilled' (eg 'labourer') work implicit in the model. However, the process of modernisation was less than successful – not least of all because it did not engage with emerging market trends such as supply-chain modes of business organisation and casual, contractor and labour hire forms of employment.

The new model, the 'flexibility model', celebrates and encourages such fragmentation. The flexibility model has added further complexity and uncertainty without addressing problems allegedly associated with the rigidities of the past such as skill shortages. The linkage between work and skill is now very messy. Elements of the old model survive with elements of the new. Neither is working to achieve desired or even improved approaches to work and the development and use of skills on the job.

How is the linkage between work and skill likely to change in the future?

Arguably, there are three key dynamics currently at work. Firstly, although there are significant cross-sectoral variations, employers are decreasing their involvement in the provision of education and training. Secondly, employer involvement is increasingly focussed on 'behavioural' skills – to enable workers to 'fit in' better with 'modern' production and service provision methods – and firm-specific job skills. We found little, if any evidence in the case studies of significant employer involvement in transferable technical and cognitive skills. Where this does occur it usually involves participation in traditional apprenticeship arrangements and in some cases basic literacy training. While reliable data on long term apprenticeships is hard to obtain, that which is available points to a decline, and instances of basic literacy training being provided or actively supported by employers are limited. Thirdly, more workers than ever are educating and training themselves. We live in a knowledge society but not a knowledge economy.

It is important to note that this tendency is not uniform or monolithic. Different tendencies are at work. For example, some employers who require workers with specialised capabilities are increasing their involvement in training. Nor is the trend to high levels of credentialism uniform amongst workers. Those with higher levels of education are more likely to undertake further education and training. The general trends and divergence are best understood with the notion of ecosystems. As a matter of commercial reality the demand for skilled work varies greatly. For example, in IT there is a need for advanced programming and computer engineering but there is also a growing number of 'netslaves'. There is an ongoing polarisation in the jobs provided (and therefore skill required) within as well as between separate skill ecosystems. Without a change in policy setting we expect these trends to continue (ie increased interest in behavioural capacities in the context of declining employer provision and rising worker undertaking of cognitive and technical training). These dynamics will play out in a context of growing polarisation/inequality in terms of wages, hours and modes of engaging labour and capacity to acquire skill.

What options are open to BVET, DET and the NSW Government more generally to shape work and skills in the future?

Our key findings take the form of recommendations concerning both what to do and what not to do. First, it is imperative that policy makers avoid a number of flawed 'habits of policy thinking'. Two in particular stand out. These concern (a) overselling what workplace and skill formation reform could achieve and (b) carrying on as if 'there is no alternative' (TINA) to the mainstream English language policy obsession with 'market' based solutions and 'flexibility.' Second, it is vital that policy makers note that while skills are not 'the answer' to problems of work in the future, there can be 'no answer' without skills. The challenge is to promote opportunities for work defined very broadly in terms of ongoing skill development. Too often in policy the concern is only with promoting opportunities to labour. Public policy should aim higher than this. It is also important to recognise that many paying jobs will only offer limited opportunities for such work.

So it is vital that the overall policy mix creates opportunities for rewarding work beyond paid employment. BVET needs to promote a 'whole of government' review of the impact of current policy initiatives on opportunities for work, skill development and skill deployment. It also needs to explore new ways of structuring funding to nurture and promote desirable skill ecosystems and new rights that make quality lifelong learning possible for the whole population. In short, the challenge is not to create yet another VET program. Rather the challenge is to create a new mindset and policy regime – one which values work over labour and promotes the use as well as the development of high level cognitive, technical and behavioural skills.



CONCLUSION: Choices about the future

Our ultimate conclusion is that choices concerning work and skill are possible. The challenge is to make decisions today that open up further options in the future. To do this we must get out of the rut in which policy is now stuck. In particular

we must move beyond the greatest intellectual rigidity of our time (ie the obsession with flexibility) and begin to create a future based on work and skills that enhance human flourishing.

Details of the Research Team

Project team examining vocational education and training to enable individuals and communities to meet the challenges of the changing nature of work

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List of Project Working Papers

1. Overview of initial findings
2. VET, Skill Formation and the Labour Market: an Overview of the Major Contemporary Studies (Chris Briggs & Jim Kitay)
3. The Three Logics of Skill (Alain Mounier)
4. VET and the labour market: insights from unpublished ABS data (Gill Considine)
5. Contract cleaning industry case study (Shaun Ryan)
6. Family support services industry case study (Gabrielle Meagher)
7. Information technology industry case study (Geof Hawke)
8. Financial industry case study (Jim Kitay)
9. Construction industry case study (Paul Hager)
10. Metal and engineering industry case study (John Buchanan)

Details of Training Statistics Referred to in this Report

(Note the following material has been taken from Gillian Considine, The Link Between VET and the Labour Market: ABS Statistical Profile).

Table 1 shows that employers of para-professionals were by far the better providers of training with only 19 per cent of para-professional employers not providing any form of training and 59 per cent providing structured training. In comparison, 34 per cent of employers who employed labourers provided no training at all and only 38 per cent provided structured training.

TABLE 1: PERCENTAGE OF EMPLOYERS PROVIDING TRAINING IN THE LAST 12 MONTHS BY OCCUPATIONAL PROFILE OF EMPLOYEES

OCCUPATION	Structured Training	Unstructured Training	No Training
	%	%	%
Professionals, managers, administrators	48	64	27
Para-professionals	59	74	19
Tradespersons and related workers	48	61	29
Clerical, sales, and service workers			
Elementary	44	58	33
Intermediate	46	67	26
Advanced	50	67	24
All	41	59	32
Production and transport workers	37	63	32
Labourers and related workers	38	59	34
All Employers	35	53	39

Source: ABS Employer Training Practices: 1997, ABS Cat. No.6356.0.

Population: All employers. For example, of all employers who employed labourers, 34% provided no training at all. Note: employers may provide more than one type of training.

On average across the survey years however, 40 per cent fewer employees participated in in-house training compared to on-the-job training (see Table 2). On-the-job training covered a broad spectrum of different learning activities from at best, 'being shown how to do the job' to at worst, 'teaching self'. The propensity for on-the-job training raises serious questions with regard to the extent to which actual training is taking place particularly given that 'being shown how to do the job' was consistently the least likely form of on-the-job training and 'teaching self' was consistently the most likely form of on-the-job training. Although participation in external, employer supported training has shown some increase across the years, it remains the least attended form of training for employees, even compared to non-employer supported training or training attended while not working. Overall, these results indicate that despite formal structured training being poorly supported by employers, employees are consistently seeking out additional training opportunities.

TABLE 2: TYPES OF TRAINING UNDERTAKEN

WAGE AND SALARY EARNERS	1989	1993	1997
	%	%	%
Study or courses undertaken			
Studied previous calendar year	16.8	18.6	15.8
In-house	34.9	31.3	33.0
External – employer supported	6.4	7.3	11.7
External – not employer supported/not working	9.8	11.8	20.0
On-the-job	71.8	81.8	71.6
Some training undertaken	79.0	85.8	80.2

Source: ABS Education and Training Experience: 1997, ABS Training and Education Experience: 1993. ABS How Workers Get Their Training: 1989. Cat. No. 6278.0. Population: All wage and salary earners for respective years.

Table 3 shows the relative decline in hours of training provided by employers with different size workforces. For small and medium sized employers the greatest decline in the average number of hours of training provided occurred between 1993 and 1996. In 1996, the average number of hours of training provided by small employers was at its lowest since first measured (2.42 hours in 1996 compared to 3.3 hours in 1989). In comparison however, employees in large organisations fared much better. Overall, in 1996 employees in large organisations received over twice the amount of structured training (6.45 hours) than employees in small business (2.42 hours).

TABLE 3: AVERAGE TRAINING HOURS PER EMPLOYEE BY EMPLOYER SIZE

SEPTEMBER QUARTER	Employer Size			
	1-19	20-99	100 +	All employers
1989*	3.30	3.40	7.30	5.70
1990	3.99	4.10	7.06	5.92
1993	4.11	5.30	6.17	5.55
1996	2.42	3.79	6.45	4.91

Source: ABS Employer Training Expenditure, July to Sept, 1997, ABS Cat. No.6353.0.

Population: All employers. For example, in 1989, of all employers who employed more than 100 employees the average number of hours spent training was 7.3

* Based on a sample of 2000 employers. The sample for 1990, 1993, and 1996 was the same 6000 employers surveyed in the Employer Training Practices Survey.

Training expenditure was highest in the field of management and professional training. Across all employers, \$20.56 or 0.88 hours of training per employee was dedicated to management and professional training. At the opposite end of the spectrum, and leaving aside undefined fields of training, the fields afforded the least amount of training were general supervision (0.26 hours and \$5.01 per employee) and plant and machinery (0.27 hours or \$5.02 per employee).

A significant finding, with regard to expenditure on training, was that in the field of trade and apprenticeship training, small organisations dedicated more time per employee on training (0.93 hours) than both large (0.81 hours) and medium (0.84 hours) employers.

TABLE 4: FIELDS OF TRAINING BY EMPLOYER SIZE

	Employer Size			
	1-19	20-99	100 +	All employers
HOURS PER EMPLOYEE				
Management and professional	0.27	0.54	1.29	0.88
Trade and apprenticeship	0.93	0.84	0.81	0.85
Sales, clerical/office and personal service	0.44	0.38	0.76	0.61
Technical and associate professional	*0.16	*0.28	0.72	0.49
General computing	0.21	0.35	0.55	0.42
Induction	*0.12	0.26	0.53	0.37
Health and safety	0.04	0.39	0.49	0.36
Personal development	**	0.22	0.43	0.30
Plant and machinery	*0.05	0.20	0.41	0.27
General supervision	*0.09	0.26	0.34	0.26
Other	**	**	0.13	0.10
All fields	2.42	3.79	6.45	4.91
DOLLARS PER EMPLOYEE				
Management and professional	7.12	13.49	29.25	20.56
Technical and associate professional	*3.19	5.07	14.45	9.76
Sales, clerical/office and personal service	4.42	5.60	12.10	8.88
Trade and apprenticeship	8.10	7.57	9.38	8.70
General computing	3.05	6.81	11.24	8.30
Health and safety	0.70	6.77	9.70	6.82
Personal development	**	4.11	8.77	5.99
Induction	*1.72	3.77	7.96	5.56
Plant and machinery	*0.65	*3.01	7.75	5.02
General supervision	*1.45	5.00	6.65	5.01
Other	**	**	2.42	1.82
All fields	32.42	62.77	119.66	86.43

Source: ABS Employer Training Expenditure, July to Sept, 1997, ABS Cat. No.6353.0.

Population: All employers defined as organisational units. For example, on average all employers provided .88 hours of training in the management and professional field.

* Results may be different if fully enumerated data were available.

** Results are unreliable

Employers whose annual turnover rate was 50 per cent or more of their entire workforce provided more unstructured training than employers with a more stable workforce. Table 5 shows that 61 per cent of employers whose annual turnover rate was 50 per cent or greater provided unstructured training and 66 per cent provided some form of training, while only 44 per cent of employers with a majority of their workforce employed for five years or more, provided structured training and 53 per cent provided some form of training. Employers who reported continuous turnover (ie, more than half of their workforce did not remain stable for any of the nominated lengths of time) were the most likely of all employers to provide both structured (62%) and unstructured training (85%).

TABLE 5: TRAINING PROVIDED IN THE LAST 12 MONTHS BY LENGTH OF SERVICE OF EMPLOYEES

WORKFORCE TURNOVER	Structured Training	Unstructured Training	Some Form of Training
50% or more employees employed for . . .	%	%	%
less than one year	31	61	66
one year to less than five years	35	52	60
five years or more	31	44	53
Employers with continuous turnover	62	85	91
All employers	35	53	61

Source: ABS Employer Training Practices: 1997, ABS Cat. No.6356.0.

Note: Employers had to choose one category which characterised their workforce.

Population: All employers. For example, of all employers whose who had 50% or more of their workforce work for less than one year, 66% provided some form of training.

The proportion of full-time employees that were significantly under-utilised with respect to their skills and qualifications dramatically increased between 1989 and 1993. In 1989, 26 per cent of those with a trade qualification, 13 per cent of those with a bachelors degree, and 8 per cent of those with post-graduate qualifications were employed on a full-time basis in jobs requiring no educational qualification. In 1993, these figures had increased to 38 per cent of those with trade qualifications, 21 per cent of those with a bachelors degree, and 12 per cent of those with post-graduate qualifications employed on a full-time basis in jobs requiring no educational qualifications (see Table 6).

TABLE 6: PERCENTAGE OF THOSE WITH EDUCATIONAL QUALIFICATIONS EMPLOYED IN JOBS REQUIRING NO EDUCATIONAL QUALIFICATION

	1989	1993
EDUCATIONAL ATTAINMENT	%	%
Post-graduate diploma or degree	7.5	11.9
Bachelor degree	12.6	21.4
Trade qualification	26.1	37.9

Source: Unpublished data. ABS Education and Training Experience: 1997, ABS Training and Education Experience: 1993. ABS How Workers Get Their Training: 1989. Cat. No. 6278.0.

Population: All employed persons in jobs requiring no educational qualification. For example, in 1997, of all those with post-graduate qualifications, 11.9% were in a job that required no educational qualification.

Those not employed in 1997 were far more likely to undertake some form of training compared to those not employed in 1993 (see Table 7) and participation in some form of training was highest amongst those with post-school qualifications. The increased participation in training amongst various unemployed sectors of the labour market suggest that in 1997 the unemployed were going to greater lengths than ever before to improve their vocational skills and education through training.

TABLE 7: PERCENTAGE OF UNEMPLOYED OR MARGINALLY ATTACHED PERSONS WHO UNDERTOOK SOME FORM OF TRAINING IN THE PREVIOUS 12 MONTHS

	1993	1997
With post-school qualifications	36.0	55.1
Without post-school qualifications	25.5	34.4
EDUCATIONAL ATTAINMENT		
Higher degree	53.2	65.3
Postgraduate diploma	54.8	57.3
Bachelor degree	64.4	64.8
Undergraduate diploma	47.7	59.1
Associate diploma	50.7	67.3
Skilled vocational qualification	41.3	50.1
Basic vocational qualification	52.4	50.3
No post-school qualification	37.8	42.1
GENDER		
Male	32.5	44.7
Female	40.1	38.1
AGE		
20 to 24	43.2	70.6
25 to 34	37.8	46.0
35 to 44	35.0	37.0
45 to 54	25.0	31.9
55 to 64	16.4	25.2
LANGUAGE BACKGROUND		
English	30.9	55.1
Non-English speaking	25.7	34.4

Source: Published and unpublished data. ABS Education and Training Experience: 1997, ABS Training and Education Experience: 1993. ABS. Cat. No. 6278.0.

Population: All those not employed¹⁰ in the reference week. For example, in 1997, of all those with a post-school qualification who were not employed, 55% undertook some form of training.

¹⁰ Not employed includes those unemployed or marginally attached to the labour market during the reference week (week prior to the interview).



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