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Conducted by the Senate Employment, Workplace Relations and Education References Committee

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1. About the Employment Studies Centre (ESC)

The Employment Studies Centre is housed within the Faculty of Business and Law at the University of Newcastle and is one of the University's twenty-two Research Centres. The ESC provides focus for research and consultancy by scholars from across a range of disciplines on workplace, industry and labour market issues and also contributes to public policy analysis in areas such as skills formation, wage bargaining, gender equity, organizational change and regional development. Since its foundation in 1990, the ESC has established a leading reputation in both academic and contract research. Currently, the Co-Directors of the ESC are Professor Mark Bray and Associate Professor Glenda Strachan.

Recent ESC clients include: BHP, Tomago Aluminium, Australian Industry Group, Australian Business Limited, Workskill Foundation, NSW Department of Industrial Relations, NSW Board of Vocational Education and Training, Human Rights & Equal Opportunity Commission, DEWRSB/Hunter ACC, Newcastle & Hunter Business Chamber, PriceWaterhouseCoopers, Ernst & Young, Brotherhood of St. Laurence, Newcastle Trades Hall Council, Labor Council of NSW, Textile, Clothing and Footwear Union, Construction, Forestry, Mining and Energy Union, Public Transport Union, NSW Farmers Association, NSW Department of Fair Trading.

2. An Introduction to Recent Studies of Skills Conducted by the ESC

Over recent years, the ESC has completed ten studies of skill that are relevant to the Senate Committee's inquiry:

Title of Report	Date of Report	Commissioned By	Authors
Constructing the Future: A Study of Major Building Construction in Australia	August 1999	CFMEU, CEPU & AMWU	Nic Croce, Roy Green, Bob Mills & Phil Toner
Industry Restructuring and Training in the Non-Residential and Engineering Construction Industry	March 2001	CTA?	Phil Toner, Linda Cooper & Nic Croce
Economic Significance of Aged Care Activity in the Cowper Electorate	June 2000		Phil Toner & Nic Croce
HUNTER MILLENIUM SKILLS REPORT: Using knowledge and skills to compete in the global economy	February 1999	Hunter Area Consultative Committee	ESC
Workskills Profile of the Manning Valley	Nov. 1999	Manning Valley Development Corporation	Nic Croce, John Dugas, Roy Green & Gita Mishra
Matching Vocational Education and Training in High Schools to Skill Needs of Employers in the Lake Macquarie District, Wyong and Central Coast Region	Nov. 2000	Lake Macquarie District Industry and Education Advisory Board	Nic Croce
Learning & Earning: Overcoming Impediments to Jobs Growth and Investment in Southern Adelaide	Feb. 2000	South Central Regional Network Inc.	John Spoehr (Centre for Labour Studies, Uni of Adelaide) & Nic Croce
Current Trends in Apprenticeship and Traineeship Training in New South Wales	Sept. 2000	NSW Board of Vocational Education and Training (BVET)	Nice Croce and Phil Toner (ESC) & Richard Pickersgill and Kristin van Barneveld (ACIRRT, Uni of Sydney)
Structure and Function of Group Training Companies in Australia	2002	National Centre for Vocational Education Research	Nic Croce, Duncan Macdonald, Phil Toner & Cathy Turner
NCVER – Group Training and Host Employers in Australia	2002	National Centre for Vocational Education Research	Duncan Macdonald & Nic Croce (with assistance from Phil Toner)

These studies were commissioned to investigate the specific issues of interest to our clients – some of these studies are industry specific, whilst others cover all industries in a region. Broadly, the studies address the following issues:

- skill shortages (ie insufficient personnel),
- skill gaps (ie skills that existing personnel do not have but employers want),
- preferred trainers utilised by employers, as well as
- strategies and recommendations made to the client.

Although results from these studies relate to specific industries or industries in specific regions, and therefore may not represent the typical situation in a given industry within a given region, some common themes have emerged.

3. The Findings of the Recent ESC Studies of Skills

The following summary first presents the common themes that emerge from all the studies. We then summarise the key results of each individual report. The last two reports on the previous table (on Group Training Companies) are not included because they are still in draft form. The ESC hopes to make the complete reports available to the Senate Committee, but it must first gain the permission of its clients.

3.1 Common Themes in ESC Studies

1. The dominant trend in Australian regional labour markets has been the shift in the types of employment to services, particularly tourism and hospitality and business services.
2. A majority of workplaces in regional areas are small to medium sized.
3. There has been a change in the level of technology utilised, an increase in the rate of technological change and an increase in the level of technology incorporated in products and materials used in the workplace.
4. Technological change has impacted, both positively (in the creation of better paid more satisfying work) and negatively (in that it destroys superseded technology-based occupations).
5. Although technological advances have impacted all industry sectors in some form, its impact is greatest is in manufacturing, information technology and communications and the non-residential and engineering construction industries.
6. There has been increasing evidence to suggest the growing presence of a two-tier labour market (high-skilled & paid employment versus low-skilled paid employment).
7. There has been an increasing trend towards casualised, part-time employment.
8. This form of employment is most common amongst female and young workers.
9. There is high level of unemployment, particularly for workers over the age of 45 and those younger than 25. There is also a high level of long-term unemployment in regional areas studied.
10. Various recruitment methods are used in combinations, including the internet, journals and newspapers as well as word of mouth.
11. The level and type of training offered varies with region and industry, employers often emphasising workplace-specific training is also needed, though rarely given by conventional training providers.
12. A low proportion of workplaces are committed to training expenditure.

3.2 Industry-Specific Studies

There are three industry-specific projects covering two industries; namely, commercial construction and aged care.

3.2.1 Commercial Construction Industry – National and New South Wales (1999 & 2001)

Introduction: Results from two major ESC reports on the construction industry, "Constructing the Future" (1999) and "Industry Restructuring and Training in the Non-Residential & Engineering Construction Industry" (2001)

show that the Australian construction sector has undergone significant change over the last decade, greatly improving its performance, the balance of the evidence strongly indicating performance levels are near those of world best practice. The most significant of these changes has been the shift away from an antagonistic, untrusting and suspicious industry culture to one where there is a high and developing degree of cooperation and teamwork with substantial pride in joint achievements.

Research also shows that some changes have resulted in long-term investment being forgone in favour of current production and profit maximisation. This has impacted adversely on several factors, eg, skill levels are inadequate and falling because investment in training has been sacrificed in the interests of immediate production.

Management experience is scarce and threatened by pressures of work, burnout and retirement from the industry. The intensity of pressures of the workplace, including very long hours, may lead to increased retirement levels of experienced workers as well as impacting adversely on workplace safety.

Training: The industry has become so fixated on performance levels, on setting very high targets and meeting them, that it has collectively and quite possibly unintentionally, forgone investment in its future as well as a more appropriate level of training, safety and job satisfaction for its current workforce. Apprenticeship levels are very low.

There are several features of the structure of the construction industry that are a disincentive to investment in training within the firm:

- It has a comparatively high proportion of firms with less than five employees (there is a very strong and positive relation between increase in firm size and the level of investment in training);
- Production and employment are essentially project based, with frequent geographical relocation of employees, resulting in high labour turnover and low employer investment in training;
- The proportional change in employment over the business cycle exceeds that of other industries (ie. during a downturn a higher proportion of employment is put off and during an upturn a higher proportion is put on); and
- The occupational structure and the related low educational attainment of the industry reduce the propensity and intensity of vocational education.

The decline in investment in training and apprentice intake is due to a range of inter-related factors. These include:

- A significant reduction in the average size firm in the private construction industry over the 1980s and 1990s;
- A large increase in the share of total construction employment of these small firms;
- A large increase in the employment share of specialist sub-contractors;
- The growth of outsourcing and labour hire employment;
- Corporatisation and privatisation of government utilities; and
- Possible substitution of traineeships for traditional apprenticeships.

A number of technological changes and other changes in the construction industry, especially in the non-residential and engineering industries, are currently having (or will have) major training implications for both the larger contractors and the sub-contractors with whom they deal. These changes and some of their implications include:

- Laser levels and receivers on earthworks plants and global positioning devices for surveying, drilling and plant operations – potential for large scale redundancy of plant operator occupations;
- OH&S requirements are becoming more stringent and larger contractors are placing increased emphasis on the maintenance of these standards with sub-contractors;
- More stringent environmental standards have major implications for training across all levels in the industry;
- The development of “smart buildings” has increased the demand for higher order electrical, electronic and hydraulic skills;
- The accelerated shift to off-site fabrication is shifting on-site skills from those focussed on the processing and fabrication of raw materials to installation of components;
- The extension of information technology (IT), especially in relations between head contractors and sub-contractors is placing a major training burden on smaller firms especially; and

- There are major work organisation changes underway at present associated with the formation of inter-firm alliances. Research has identified the importance of 'soft skills' in the formation of these alliances.

A number of skill shortages were identified in the industry, including specialist welding, concrete steel fixing, materials handling, bricklayers, stonemasons, restorers and those skilled in heritage work, plant and equipment operators and project managers.

Measures to Increase Training in the Industry: Measures to address the decline in investment in training include:

- Major private and public clients have encouraged greater inter-firm cooperation and longer term relations between contractors, sub-contractors and suppliers (eg. coordination among large contractors of the mutual recognition of training by each enterprise);
- These longer term alliances have the potential to redress many problems, such as reduced investment in training, declining quality, investment in apprenticeship training and development of management skills;
- Major purchasers of construction investment are also altering their tendering requirements to overcome the inherent problems of subcontracting and fragmentation to encourage investment in training (eg. the Queensland and NSW Public Works Departments now have training requirements for larger contracts); and
- The introduction of the GST and the ABN has greatly diminished the scope for employees to reclassify themselves as subcontractors, which should lead to an increase in the direct employment of construction workers by firms and thus could be a positive factor in increasing the propensity and intensity of training.

3.2.2 Aged Care Industry – Cowper Electorate (2000)

Introduction: Although the ESC's report on "Economic Significance of Aged Care Activity in the Cowper Electorate" (2000) was restricted to one industry in the Cowper Electorate, it did cover all significant employers in the region. The research undertaken by the ESC focussed on the labour market and formed a part of the overall report for the client, whilst the full report, completed by another consultant, addressed other issues in addition to employment and skill shortages.

Within the classifications used in Australia to measure economic and labour market activity there is no single category that captures the diverse range of undertakings within aged care. For the purpose of this analysis, aged care activity is defined within the Australian and New Zealand Standard Industrial Classification and includes 'Class 8613 – Nursing Homes', 'Class 8721 – Accommodation for the Aged' and 'Class 8729 – Non-Residential Care Services'.

Employment Patterns: The occupational profile of the Health and Community Services sector in the study area encompasses all the Australian Standard Classification of Occupations (ASCO), 2nd Edition occupational categories. The predominant categories are professionals (almost 36% of the region's professionals) and intermediate clerks, sales and service workers, (34% of the region's total for this group).

The sector also employs approximately 12% of the study area's advanced clerks and service workers and labourers and related workers. There is a low proportion of managers, tradespersons, intermediate production and transport workers and elementary clerks, sales and service workers employed by this sector.

The major occupational categories employed by nursing homes include professionals, intermediate clerks, sales and service workers and to a lesser extent labourers and related workers, reflecting a similar occupational structure exhibited by the sector as a whole. The level of employment in the remaining occupational categories is very low, reflecting the same level and occupational structure as that exhibited by the sector as a whole.

The level of employment for all occupational categories in accommodation for the aged is below 0.2% of total personnel employed nationally, for all the occupational groups. The most prominent categories are intermediate clerks, sales and service workers (0.18%) and labourers and related workers (0.19%). The next major categories include professionals (0.11%), associate professionals (0.09%) and tradespersons (0.06%). There are no managers, advanced clerks and service workers, intermediate transport and storage workers and labourers and related workers.

The occupational profile of workplaces providing aged care in the study area is predominantly low skill, with almost 47% of workers classified as intermediate clerks or service workers, and just under 18% of

employees classified as labourers or related workers. The next major occupational group is that of professionals, accounting for almost 17% of total employment in surveyed workplaces. In respect of associate professionals and tradespersons, there are approximately 7% in each group. Only 3% of personnel are managers and less than 1% are either advanced clerks or service workers or elementary clerks or service workers. No workplace surveyed employed transport and storage workers.

The majority of workers, employed in all but one of the workplaces surveyed, are women. More than 50% of employment in almost 82% of workplaces surveyed is on a part time basis, with only one workplace surveyed reporting less than 25% of employment being part time. All workplaces surveyed indicated that less than 25% of employees were under twenty-five years old.

Recruitment Practices: Almost 60% of workplaces surveyed use a combination of recruitment methods in preference to using any one method in isolation. These include advertising within an organisation in addition to advertising in newspapers and specialist journals, private employment agencies and word of mouth. Respondents were asked to identify the main obstacle to increasing the number of staff employed. Inadequate funding was cited by 63% of workplaces as the main obstacle to employment growth. A further 23% of workplaces cited the cost of labour, 9% cited the availability of skills in prospective employees and 5% of workplaces indicated a lack of demand as the main obstacle to employment growth.

Skill Shortages, Skill Gaps and Training: Almost 55% of surveyed workplaces indicated anticipating some difficulty recruiting staff in the occupations they currently have. Respondents were also asked to identify occupations they anticipated would be difficult to recruit in over the next 12 months. Their responses indicate anticipation of inadequate staffing levels in intermediate clerks and service workers, such as cooks and enrolled nurses, as well as professionals and associate professionals, such as clinical nurse consultants, registered nurses, service co-ordinators, social workers and speech therapists.

Respondents were also asked if skill gaps existed in their workforce. These included management and supervision, interpersonal and communication skills, planning and problem solving, ability to use new technology, self-management and self-direction, multiskilling, teamwork and group skills, literacy and numeracy skills and finally, technical/job-related skills.

Almost 64% of workplaces surveyed indicated that the skill gaps they identified would need off-the-job training, compared to 36% of workplaces indicating identified skill gaps would not need off-the-job training. The most common form of training provision is a combination of an organisation's own staff with 'other' training providers. Almost 32% of workplaces surveyed indicated this arrangement. 'Other' training providers include TAFE, consultants and a University. The next most common form of training provision (13.6% of workplaces) encompasses combinations of an organisation's own staff, TAFE, consultants and 'other' training providers as well only using an organisation's own personnel.

The majority of workplaces rated the amount of training available, quality of external training, quality of in-house training and the relevance of training to skill needs of the organisation as very good. Flexibility of training delivery as well as the cost of training was not as highly rated, with 48% and 52% of workplaces respectively, rating these two aspects of training as OK or 'fair'. Respondents explained that the cost of travel to some courses made them prohibitive (eg using the Manning Base Hospital/College of Nursing) and that this cost was included when respondents rated this aspect of training.

These results suggest that the majority of workplaces are very satisfied in terms of the first four aspects of training, although it should also be noted that respondents were rating these aspects on training largely undertaken by the workplace being interviewed. This may also explain the lower percentage of workplaces that rated external training provision as very good.

However, 18% of workplaces perceived the amount of training available as poor and 19% of workplaces perceived the flexibility of training delivery as poor. Results also reflect that it is the flexibility of training delivery and the cost of training in the study area that workplaces would like to see an improvement in, with only 33% and 38% of workplaces rating these aspects as very good.

3.3 Region-Specific Studies

There were four region-specific studies, which focus on all industries within the region. The methodology used in each of these four studies was essentially the same – it involved a study (using a similar questionnaire) of employers in the region examining their skills requirements, skill shortages and gaps, and their training practices.

3.3.1 Hunter Region (1999)

Introduction: The Hunter region is repositioning itself to participate in the growth sectors of the global economy, but the report (HUNTER MILLENIUM SKILLS REPORT, 1999) shows that it faces a number of problems and constraints that will need to be addressed. In particular, the region is experiencing skill gaps and shortages in key industries and occupations, while at the same time having to deal with persistently high unemployment as a result of massive restructuring, technological change and import competition as well as a lack of demand in the regional economy.

The dominant trend in the Hunter labour market is the shift in the composition of employment to services, particularly tourism and hospitalities and business services. However, since total employment is also growing, this shift has not taken place at the expense of manufacturing. Indeed, the most profound change is occurring within the manufacturing sector itself, with a shift from low skill, repetitive manufacturing (including some but not all areas of textiles and clothing and wood products) to high value adding, more knowledge intensive activities (such as chemicals, transport equipment, food and fabricated metal products).

The transformation of the Hunter's industry profile is also reflected in changes in the occupational structure, particularly the 'professionalisation' of the workforce, as the disappearance of some traditional jobs like labourers and production workers is more than offset by the growth of professional groups. Paradoxically, however, this 'upskilling' of the region has also brought with it an expansion of new low skill jobs in retail trade, hospitalities and personal services, which along with social exclusion pose a serious danger already evident in some other countries of a division into a 'two tier' labour market.

Almost the entirety of the net additional jobs growth in the region since 1981 has taken place in part-time and casual work, particularly for women, and has been accompanied by a collapse in the full-time labour market for young people. The participation rate for women in the regional labour force, while starting from a very low base, has been increasing faster than the State or national average. However, this has not overcome the entrenched occupational segregation of women into predominantly lower paid positions in retail trade and community services.

To the extent that upskilling is occurring in the region, it is both reflected in and reinforced by the increase in attainment of higher qualifications. For example, those with bachelor degrees have risen by a third since 1991, but it must be noted that the increase in this area still lags the rest of Australia. While there has also been a continuing expansion of those with trades qualifications, it has largely been confined to males, with females making up only a tenth of the total. Other data indicate a lower level of training provision for women in regional and rural Australia compared with the metropolitan areas.

This report shows that Hunter workplaces are becoming more productive. Specifically, data gathered for the workplace survey found that two thirds of workplaces had increased their productivity over the past three years, and that they had a much greater chance of doing so if they were committed to (1) exporting their major product or service, (2) expanding the size of their workforce, (3) undertaking significant organisational and technological change in the last three years, and (4) spending a higher than average proportion of payroll on formal training.

Skill Shortages, Skill Gaps and Training: Consistent with national trends, workplaces in the region are spending less on training than they did at the time of the 1995 survey. Less than a tenth of workplaces spent more than 5% of payroll on training in 1998, and only a third spent more than 2%, compared with over 40% of workplaces in 1995. The best training performance on this criterion, which is not necessarily indicative of quality, was recorded in manufacturing and communications and the worst in transport and storage, retail trade and recreation, personal and other services.

Skill gaps and shortages are still seen as a major problem by workplaces. Just under a third of workplaces expect skill gaps or shortages to affect the 'future growth or viability' of their organisation, compared with over 42% in the 1995 survey, which may indicate the increasing capacity as well as the continuing shortcomings of the training system to meet the demand for skills.

On average, 39% of workplaces across industries and occupations experienced skill shortages in the last three years, which is about the same proportion as in 1995. These shortages occurred mainly in construction and community services and in the higher skill professional and trades occupations. As for the future, around 29% of workplaces anticipate difficulties in recruiting labour in the next 12 months, with the focus shifting to manufacturing and communications. Stakeholder interviews and case studies also identified emerging shortages.

Skill gaps are also a barrier to workplace performance and are experienced by 30% of workplaces in the ability to use new technology, 28% for soft skills like interpersonal and communication skills, 25% for management and supervisory skills, 23% for planning and problem solving skills, 17% for ability to work with minimum supervision, 14% for literacy and numeracy skills, 13% for technical and job-related skills, 12% for multi-skilling and 12% for ability to work with others and in teams.

In response to an open-ended question, many workplaces cited computer-related skills as a deficiency. However, a majority are satisfied with the ability of their workforce to handle computer applications, though a much smaller proportion rate the skills as 'very good'. The highest levels of competency were found in word processing, data base programs and spreadsheets, and lowest in email and internet and desk-top publishing programs. The industries indicating the greatest proficiency in computer skills were, as might be expected, communications and finance, property and business services.

Almost all workplaces claim to be delivering on-the-job training to their employees, but the proportion drops to three-quarters of workplaces for external training, 59% for off-the-job, in-house training and around a fifth for workplace centred learning. While most workplaces rely on their own personnel to provide training, there is still a large proportion which makes use of external sources, such as TAFE, universities and private consultants. While over 90% of workplaces are aware of government financial incentives to take on apprentices and trainees, only a third access them.

Currently, a fifth of workplaces in the region offer apprenticeships, a fifth offer traineeships and 8% provide graduate placements, which is down on 1995. Only around 5% of workplaces plan to increase apprenticeships in the next 12 months and a similar proportion plan to take on more trainees and graduates. Intentions of workplaces vary considerably across industries, with 14% in communications planning to take on more trainees and 12% in construction intending to recruit apprentices. Workplaces identified the priority areas for apprentice and trainee recruitment.

Just under a third of Hunter workplaces now participate in Group Training Schemes and other cooperative training arrangements, and 15% intend to join such arrangements or increase their use of them in the future.

Overall, a quarter of workplaces regard training provision in the region as 'very good', 40% regard it as satisfactory and another quarter as poor. The major problem was seen as being one of the 'relevance of training to skill needs', followed by the 'amount of training available' and the 'flexibility of delivery'. Few nominated the cost or quality of training as a problem.

In the overwhelming majority of cases, the cost of training was met by the employer, with some industry and occupational variations, and workers generally regarded the training they received as relevant to their job. Nevertheless, around four fifths of workers in the region agreed that further training or education would help them do their job better, though there was a large differential between the 85% of managers and professional groups who felt they would benefit from further training or education and the 58% of labourers who took this view. In promoting a training culture, it must be kept in mind that its diffusion tends to be uneven.

Key Recommendations: The study made 18 recommendations:

1. Generate awareness that regions create their own competitive advantage in the global economy through investment in the future, especially in skills and lifelong learning.
2. Promote training and skill development, including vocational education and training (VET), as a key activity in industry clusters to ensure a presence in knowledge-driven global markets.
3. Provide scope and possibly new structures for better coordination and communication between industry associations, employers, unions, training providers and employment services.
4. Improve coordination of VET options through TAFE, ACE and private providers to ensure that they complement each other in relation to AQF levels and the role of providers in the training market.
5. Ensure a balance of public and private training provision across industry sectors and occupations, with a continuing role for TAFE in generic skills development and key specialised skills.
6. Research the shift of VET towards more on-job and informal learning with competency based assessment, focussing on the response of local providers such as TAFE and the university.

7 Broaden the participation in tertiary education in the region to build on current trends and meet and exceed national benchmarks, with better information for schools and youth organisations.
8 Address regional skill shortages through targeted training programs as well as continuous review of the provider curriculum, including development and formal recognition of qualifications.
9 Address skill gaps in 'soft skill' areas, such as interpersonal and communication skills, as well as technical skills and the need to adapt to new technology, including computer applications.
10 Ensure that university degree programs and research are more responsive to regional requirements, with scope for specialist short courses and more flexible delivery.
11 Develop the workplace role and responsibility for structured, accredited on-the-job and off-the-job in-house training, with more informed provision for the recognition of prior learning (RPL).
12 Support the shift to employee driven, workplace centred learning as part of best practice organisational change and improvement, including the assessment of competencies for qualifications.
13 Encourage more apprentice, trainee and graduate places through special programs and networking, including group training schemes and other cooperative arrangements.
14 Address gender bias in training and education through special programs for women to achieve a better balance in some areas and to counter job segregation in the labour market.
15 Use financial incentives and standard setting to ensure Job Network participants make provision for high quality training and work experience, especially for disadvantaged groups.
16 Increase opportunities for the unemployed through the development of new skill pathways from welfare to work, with a major role for training as well as wider economic and industry policies.
17 Ensure training provision for those not in the labour force, such as women and discouraged job-seekers, to upgrade skills for entry to high growth industries and occupations.
18 Develop and implement an evaluation process to monitor and evaluate the direction and progress towards agreed goals via a regional Skills Network.

3.3.2 Manning Valley (1999)

Introduction: An analysis of the data from the survey shows that the major industry sector in the Manning Valley is retailing, the major activity is associated with services (retail/wholesale and hospitality), and the majority of workplaces across all industry sectors employ between 3 and 10 staff. As many as 42% of workplaces surveyed are part of a larger organisation. With the exception of 4 workplaces (in manufacturing), all the workplaces surveyed service the local market. Interestingly, 36.5% of workplaces service both the local and national markets and 18.5% of workplaces service local, national and international markets.

Employment Patterns: Less than 20% of workplaces planned to increase the number of staff they employ over the next year compared to the majority of workplaces (76%) that plan to maintain their current workforce. Only 4% of workplaces indicated they would be reducing the number of staff over the next year. The majority of workplaces (71%) reported that the majority of their staff have been their employees for at least 3 years, with 43% of workplaces indicating their personnel have been with them for 5 or more years. The labour force is predominantly low skill, with 47% of employees engaged in elementary clerical, sales and service work or some form of labouring work. The level of union membership is very low, with 76.5% of workplaces indicating less than 25% of their employees belong to a union.

Skill Shortages, Skill Gaps and Training: Difficulties in recruiting in the following year were anticipated by 35% of workplaces, compared to 65% of workplaces that reported they did not anticipate any difficulties in recruiting personnel. Skill shortages reported by workplaces encompass the entire range of occupational categories including managers and administrators, professional, associate professional, trades, advanced, intermediate and elementary clerks and service workers, intermediate plant and transport workers and labourers and related workers.

Lack of demand for product was the most frequently cited obstacle to increasing employment (38% of workplaces), with the cost of labour being the next most frequent reason given (23% of workplaces).

Although most workplaces provide on-the-job training, there are too few workplaces that provide on-the-job in-house training (49.75%) or external training (58%).

Key Recommendations: Recommendations, to a large extent reflected those for the Hunter study, principally due to the large number of issues addressed that were common to both studies, and can be found in the report.

3.3.3 Lake Macquarie District, Wyong and the Central Coast Region (2000)

Introduction: The ESC's report "Matching Vocational Education and Training in High Schools to Skill Needs of Employers in the Lake Macquarie District, Wyong and the Central Coast" (Nov 2000) approaches the issue of skill shortages by canvassing employers who are routinely contacted for the purposes of finding work placements for high school students. The report is based on extensive research undertaken for the Board of Vocational Education and Training (NSW) reviewing current trends in apprenticeships and traineeships as well as a survey of workplaces in the local region and focus groups. Included here are the results from the workplace survey. The objectives of the research were to:

- establish which skills potential employees should have and are required to have by employers;
- establish which VET courses would best suit local employers' needs for skilled entrants;
- derive an estimate of the expansion, or contraction, of local employment for entry-level employees;
- investigate problems employers experienced with respect to current workplace and work placement arrangements;
- elicit problems local employers face in employing entry-level employees; and
- elicit employers' suggestions as to what changes could be made to overcome the workplace and work placement problems they encountered.

Workplace Profile: The greatest concentration of workplaces in the sample occurred in hospitality and office services with 36% and 27% of workplaces, respectively. No workplaces in IT responded. For the total sample, 35% of workplaces indicated they are part of a larger organisation. However, the greatest percentage of workplaces that are part of a larger organisation occurs in the office services and retail sectors, where 71% and 50% of workplaces respectively, are part of a larger organisation. The majority of workplaces across the sample are small workplaces, with 36% of workplaces employing 1 to 10 employees and a further 26% of workplaces employing 11 to 20 employees. The retail and construction sectors have the highest concentration of small workplaces, with almost 67% and 55% of workplaces, respectively indicating they employ 1 to 10 employees. In the hospitality sector, 55% of workplaces indicated they employ up to 20 employees, with a further 35% of workplaces indicating they employ between 21 and 50 employees. There is a similar distribution of workplace size in the admin/business sector (office services). The main difference is that for this sector, 20% of workplaces employ more than 100 employees.

Employment Patterns: Almost 69% of workplaces surveyed indicated they employ the same number of staff compared to three years ago. By contrast, employment growth stemmed from workplaces reporting they now employ more staff compared to three years ago (19%), and new businesses, ie, almost 4% of workplaces reporting their organisation is less than three years old.

Analysis by sector reveals that most workplaces reflected the sample trend, including workplaces in the retail, office services, and hospitality sectors. The exception occurred in the construction sector where ***all*** workplaces indicated they employed the same number of staff compared to three years ago.

Almost 64% of workplaces surveyed indicated that the cost of labour is the ***main*** obstacle to employment growth. Although the lack of demand for the product produced was the second most important obstacle to employment growth reported, only 12% of workplaces across all sectors indicated this was the case.

The are four significant features that emerge when the data is analysed by sector. Firstly, the ***majority*** of workplaces across ***all*** sectors indicated that the cost of labour was the main obstacle to employment growth. Secondly, the cost of labour is the ***only*** obstacle to employment growth for ***all*** workplaces in metals and engineering.

The third feature stems from the fact that only 10% of workplaces in hospitality and 7% of workplaces in office services indicated that the availability of skills is the main obstacle to employment growth. None of the workplaces surveyed in the other sectors reported this factor as the main obstacle to employment growth.

Finally, a lack of demand for the product produced was the main obstacle to employment growth for a low percentage of workplaces in construction (18%), retail (17%), hospitality (15%) and office services (7%). Other

factors impeding employment growth were minor in nature in that they affected few workplaces in a small number of sectors.

Workplaces indicated they required staff for a broad cross-section of occupations, but the most prominent of these was the need for customer service personnel. Amongst other services-oriented vacancies anticipated by employers were waiters/waitresses, sales personnel, nurses (trainees), administration clerks and kitchen hands.

Recruitment Practices: About 32% of workplaces across all sectors utilise advertisements in newspapers and specialist journals as the ***main*** method of recruiting staff. Word of mouth was utilised to recruit staff by almost 20% of workplaces. The next most common method of recruiting staff was equally shared between advertising internally (ie. within an organisation), with 18% of workplaces across sectors, and utilising Employment National/JobNetwork, which also represented 18% of workplaces.

Although most workplaces utilise more than one recruitment method to gain new staff, workplaces within sectors indicated they have a preference for one recruitment method over all others and that this main method differs across sectors. Another important feature is the different combinations of recruitment methods used by workplaces within a sector.

A low percentage of workplaces across most sectors used private labour hire agencies to recruit staff. Workplaces in the construction sector were the most intensive users of this recruitment method (10%), followed to a minor extent by workplaces in office services (7%) and hospitality (5%).

Skills**:** A large percentage of workplaces indicated a mix of skills was required of potential employees, whilst a relatively low percentage of workplaces indicated potential employees should also have job-related skills. This result suggests that the majority of workplaces require a comprehensive mix of 'soft' skills, such as interpersonal and communication skills, planning and problem solving skills, self-management and self-direction skills, as well as 'core' competencies, such as literacy and numeracy. A large percentage of employers across the sectors (50%) expect to train their prospective staff in the specific job-related skills relevant to their workplace.

Apart from the skills that employers require, an additional aspect of their responses relates to the attitude of potential employees – they look for a willingness to learn, to fit in with their co-workers and to undertake duties as directed by their supervisors.

A significant percentage of workplaces across all sectors require potential employees to possess skills in word processing, spreadsheets, e-mail and internet software, yet a relatively low percentage of workplaces require skills in database, desktop publishing and 'other' computer software.

Analysing the data by sector reveals a different emphasis on specific software applications compared to the sample percentages. In retail, ***all*** workplaces require potential employees to possess word processing skills, compared to spreadsheet software and 'other' software, and e-mail/internet and database software whilst no workplace surveyed in retail utilises desktop publishing. Workplaces in the 'office' sector intensively use word processing, e-mail/internet and spreadsheet software, compared to database software, desktop publishing and 'other' software. Workplaces in metals and engineering mainly utilise word processing software, spreadsheet software and 'other' applications principally related to Computer Assisted Design software CAD (67%). Workplaces in the construction sector utilise most software programs with an emphasis on word processing and spreadsheets and e-mail/internet software. Workplaces in the hospitality sector mainly utilise word processing and desktop publishing and spreadsheets whilst only a small percentage of workplaces utilise the other programs.

These results principally suggest two things. Firstly, despite the fact that the IT sector is not represented in the sample, ***all*** sectors and ***all*** workplaces within sectors utilise IT to best suit their business activities, which results in a different mix of computer-related skills. Secondly, most sectors and most workplaces within sectors have a preference for spreadsheets as opposed to a dedicated database application, suggesting that spreadsheets are used as databases to store information.

Although almost 90% of workplaces surveyed indicated they are aware of financial incentives available to assist them train apprentices and trainees, only 54% of workplaces reported they actually use them.

Analysis of the data by sector reveals a similar pattern is exhibited by workplaces in 'office', hospitality and construction. Workplaces in these sectors reported a much lower rate of utilisation of these incentives to train employees.

There are three significant exceptions to the overall sample percentage. The first of these relates to workplaces in 'office' where about 93% of workplaces indicated awareness of incentives to train, yet only 33% of workplaces indicated they use these incentives. Secondly, workplaces in hospitality, and construction

approximated the sample percentage of workplaces that use financial incentives, where 53% and 50% of workplaces respectively indicated use of incentives to train. Thirdly, workplaces in retail and metals and engineering reported the highest percentage of workplaces that uses financial incentives to train their employees. For workplaces in retail, the difference between awareness and use of financial incentives was only 8% of workplaces surveyed. All workplaces in metals and engineering are aware and use financial incentives to train employees.

Training and Work Placement : Although the majority of workplaces across sectors provide off-the-job training (63%) and external training (69%), ***all*** workplaces provide on-the-job training with 12% of workplaces reporting they use 'other' forms of training.

A major difference with respect to training provision amongst sectors is that in 'office', in addition to all workplaces providing on-the-job training, 93% of workplaces provide off-the-job training, 86% of workplaces provide external training, and 37% of workplaces in this sector provide 'other' types of training. It is the only sector reporting a higher level and mix of training provision compared to the other sectors and to the sample as a whole.

By comparison, 59% of workplaces in hospitality, 50% in retail, 45% in construction and 33% in metals provide off-the-job training, all lower than the overall sample percentage.

Similarly, the level of external training provision varies by sector. For instance, only 33% of workplaces in retail and 59% of workplaces in hospitality provide external training, both lower than the overall sample percentage, compared to ***all*** workplaces in metals and engineering, 86% of workplaces in 'office' and 73% of workplaces in construction. Only workplaces in 'office' (38%) provide 'other' types of training.

Almost 34% of workplaces across sectors solely use their own staff to train their employees, this being the most common type of training provider. A further 27% of workplaces use a combination of their own staff and TAFE to provide training, being the next most common type of training provider used. The third most common type of training provider used by 11% of workplaces was a combination of a workplace's own staff and consultants. Only 5% of workplaces across the sample utilise ***all*** the different types of training providers in combination.

Analysis of the data by sector suggests that individual sectors have a distinct preference for the type of training provider used to train employees. For instance, ***all*** workplaces in retail ***exclusively*** use their own personnel to train employees. ***All*** workplaces in this sector do not use any other type of training provider.

Workplaces in 'office' primarily use their own staff in combination with consultants (27%), their own staff exclusively (20%) and all the different types of training provider (13%) to train employees.

Workplaces in hospitality principally use their own staff in combination with TAFE (47%) and their own staff exclusively (32%) to train employees. An additional 11% of workplaces use their own staff with consultants to train employees, whilst 5% of workplaces use consultants exclusively or a combination of their own staff, TAFE and consultants.

Workplaces in metals and engineering are evenly distributed with respect to training provider used, with 33% of workplaces using TAFE exclusively, their own staff in combination with TAFE and all types of training provider listed on the questionnaire.

There's a different mix of training provider utilised in the construction sector. The main type of training provider used is a combination of an organisation's own staff and TAFE, reported by 40% of workplaces. The next preference consisted of an organisation's own staff exclusively and a combination of an organisation's own staff, with TAFE and consultants, reported by 20% of workplaces respectively. Only 10% of workplaces in this sector reported using TAFE exclusively or 'other' types of training providers.

'Other' types of training providers used by workplaces include training organisations that specialise in the service or product of the workplace, such as IT, real estate and sales, as well as peak bodies and registered training organisations. An important feature is the presence of training in information technology, as this reinforces the hypothesis that although no workplaces responded to the survey, an element of IT exists in most workplaces across sectors.

Although only 27% of workplaces across the sample indicated there were problems with current workplace and work placement arrangements, analysis by sector reveals two principal results. Firstly, a similar percentage of workplaces in all but two sectors indicated there were problems with current workplace and work placement arrangements. Secondly, the most affected sector is retail and the least affected sector is construction.

Respondents were asked to identify up to three major problems with the workplace or with work placement. The types of problems that were identified were both workplace related and work placement related. Problems relating to the workplace included balancing budgets and quality; a lack of suitable staff during peak times;

reluctance of employees to embrace multiskilling; job satisfaction; targets for staff causing stress and conflict; workload of managers; the lack of incentives and over-regulation; shiftwork penalties reducing flexibility of staff; recognition by employees of a workplace's ability to meet increases in pay and other entitlements; teamwork; unfair dismissal laws; and a reduction in effective communication due to shift rosters.

Problems relating to work placement included the general attitude of students, and for some workplaces, the culling of potential trainees failing to realise weekend social life and sport commitments are reduced. Other problems reported were the level of reliability and commitment of students to a position and the workplace; the expense of employing trainees and apprentices; and the inadequacy of the time period for work experience and work placement.

Respondents were also asked to suggest changes aimed at improving workplace and work placement arrangements, which fell into two main categories, those related to the workplace and those related to work placement.

Suggested changes to improve workplace arrangements included the review of award rates applicable to restaurants to reflect their 'normal' trading hours; repeal or change unfair dismissal laws; increasing the level of staff to improve customer service; reducing managers' workload; reducing the reliance on shiftworkers to carry out maintenance; simplifying 'rules' to set up enterprises; improve communication between staff and management; promoting 'give and take' principles within area of responsibility; improve awareness of opportunities for promotion; and improve incentive schemes to reward diligence.

Suggested changes that would improve work placement arrangements included better screening of students to match skills to industry; increasing the level of workplace training for students; accurate information given to students regarding workplace expectations; extending the period for work experience; emphasising the responsibility of a position; encouraging the participation of training organisations; and an understanding by students that a job is not just a way of earning an income but rather it is one step of many in a planned career path.

Recommendations: The recommendations stated below are based on the findings of the study and aim to address problems identified by workplaces as well as encompassing comments and suggestions made by employers. They include:

- Actively target workplaces focusing in IT, ie, workplaces that sell, service and assemble computers and other peripheral hardware, so as to improve contact and participation in work placement program.
- Increase the potential of VET courses and work placement as career pathways by diversifying into interrelated and overlapping industry sectors, particularly targeting growth sectors such as tourism and other personal service related industries and office and retail duties in IT workplaces.
- Review duration of work placement to enhance stability and continuity of employment and on-the-job training, facilitating progression of student from work placement to traineeship or apprenticeship as well as offering employers a more stable relationship with students and schools.
- Assign a dedicated VET (teacher) coordinator's position specifically to:
    i) coordinate student screening for suitability to workplace and industry;
    ii) coordinate and supervise work placements;
    iii) promote and monitor work placements with participating workplaces;
    iv) initiate contact with new workplaces; and
    v) initiate review of students on work placements with employer and student (or their parent/guardian where appropriate) after one week to ensure suitability of student to workplace and industry.
- Establishment of Work Placement Network (WPN), ideally comprised of DET VET consultant, VET work placement coordinator, careers advisors, relevant public and private training providers and Chamber of Commerce representatives.
- WPN to meet regularly and develop strategic plan aimed at facilitating:
    i) improved employer understanding of and access to training subsidies;
    ii) provide input to DET on VET courses and their structure to enhance progression to TAFE and other courses;
    iii) organise open days and exhibitions to actively promote work placement as career pathways to employers and students as well as inviting employers to promote their industry to teachers, careers advisors and students; and
    iv) establish outcome indicators to monitor and evaluate work placement program.

- Educate students as to what employers and fellow workers expect of them by developing guidelines for student behaviour in consultation with WPN.
- Greater integration of VET courses with mainstream high school courses to improve literacy and numeracy standard as well as focusing on literacy and numeracy workplace requirements, in consultation with WPN.

Future Research: There are a number of issues that need further research in order to continue and develop VET course delivery and work placements that flow from the findings of this report. These issues include:

- Case studies targeting workplaces from specific industry sectors of interest, aimed at:
    i) developing work placement guidelines in consultation with WPN;
    ii) investigating administrative rigidities related to work placement as well as other problems, some of which have been stated above; and
    iii) identifying successful workplaces, in terms of 'problem-free' work placement assignments and/or successive work placements with a specific high school(s) for the purpose of benchmarking;
- Conducting industry specific focus groups, offering a financial compensation to employers attending with the express purpose of:
    i) eliciting employer requirements of students for work placement assignments;
    ii) covering topics of interest that reflect questions posed by this study as well as other topics of interest; and
    iii) developing ***and*** maintaining an employer network that's industry specific.
- Developing outcome measures for work placements in consultation with WPN.

3.3.4 South Adelaide (2000)

Introduction: This report provides an overview of the key impediments to jobs growth in the Southern Adelaide region as well as investigating skill gaps and shortages that exist in the region. A significant number of sampled workplaces are part of a larger organisation, the majority of which are connected to the internet and use it to recruit, access information, communicate and one third also use it for electronic marketing and sales. Few workplaces export their product or service and of those that do, the level of exported product or service is low, however, almost half of exporting workplaces expect their level of exports to increase over the next 12 months. Few workplaces expect to commence exporting their product or service.

A significant majority of workplaces reported an increase in productivity, with workplaces driving the change in the pattern of employment and skills, observed over the previous 3 years. The most widely adopted changes included introducing new technology, work reorganisation and job redesign. More than half the workplaces surveyed have also undertaken training needs analysis and a skills audit. Yet few workplaces are committed to training expenditure.

The majority of workplaces surveyed were small to medium sized, employing between 3 and 50 staff. Women form the majority of employees in most workplaces. A high proportion of employment is casual or part time, with 41% of workplaces indicating more than half of their staff are part time or casual. Few workplaces employ staff younger than 25, with 69% of workplaces indicating less that 25% of staff are under 25 years old.

A significant percentage of workplaces (43%) reported using contracted labour, half of which cited access to specialist services as the main reason for using this form of labour and a further 43% of which cited meeting fluctuations in demand for their product or service. Most workplaces utilise a number of recruitment methods.

The occupational profile of employees in workplaces surveyed is predominantly low skill, with 69% of employees belonging to one of the four low skill groups. Almost 33% of workplaces surveyed reported they expect skill shortages in the next 12 months with some sectors reporting a greater percentage than the overall sample proportion. These industry sectors include mining, accommodation, cafes & restaurants and manufacturing (45% of workplaces surveyed) and construction (37% of workplaces).

Skill Shortages, Skill Gaps and Training: Skill gaps in the areas discussed below may be of greater concern to workplaces than the skill shortages they reported, since they affect the performance of the *current workforce*. Skill gaps are also more difficult to measure. Skill gaps reported across sectors include:

- Management and supervisory skills (23% of workplaces);

- Interpersonal and communication skills (31% of workplaces);
- Planning and problem solving skills (27% overall, but 67% of workplaces in mining and 63% of workplaces in wholesale.);
- Ability to use new technology (40% overall, but 88% in wholesale and 67% in education sectors.);
- Self-management and self-direction (28% of workplaces);
- Multiskilling (14% of workplaces);
- Teamwork and group skills (18% of workplaces);
- Literacy and numeracy skills (15% of workplaces); and
- Technical job-related skills (22% of workplaces).

Almost all workplaces provide some form of training, the most extensive being on-the-job training (93% of workplaces), whilst the majority (65%) also provide external training. A variety of training providers are used although the majority of training is provided by an organisation's own staff.

Almost two thirds of workplaces surveyed did not offer apprenticeship, traineeship or graduate placements across all industry sectors. Although the vast majority of workplaces (86%) are aware of financial incentives to train, only 38% of workplaces access these incentives.

The vast majority of workplaces (80%) are satisfied with the amount of training available as well as the quality of external and in-house training. Furthermore, a similar percentage of workplaces agree that training provided meets their skill needs and rated the flexibility of training delivery and the cost of training as being good to very good.

The cost of training was deemed to be acceptable by just over 67% of workplaces, but was rated poorly by almost 14% of workplaces with a further 19% of workplaces indicating the cost of training was not applicable to their organisation. However, 44% of workplaces in the education sector rated the cost of training as poor, along with 25% of workplaces in the transport & storage sector, 23% of workplaces in the construction sector and just over 21% of workplaces in the accommodation, cafes & restaurants and the personal & other services sectors.

Respondents were asked to identify the *main obstacle* to increasing the number of employees at their workplace and, although availability of skilled applicants was cited by 14% of workplaces, more prominent was the lack of demand for product or service, cited by 31% of workplaces. For a further 30% of workplaces, the cost of labour was perceived to be the main inhibiting factor to the organisation's expansion.

Factors such as environmental rules, unfair dismissal legislature and attitudes of unions are perceived as minor obstacles in increasing employment. It is rather the perceived lack of demand for goods and services and the cost of labour that most concerns the region's employers.

3.4 State-Wide Studies – Trends in Apprenticeships and Traineeships in NSW (2000)

This is a report of the key findings of the *Current Trends in Apprenticeship and Traineeship Training in New South Wales Project* commissioned by the New South Wales Board of Vocational Education and Training. The purpose of this research was to develop recommendations for the improvement of the apprenticeship and traineeship system in New South Wales, with reference to access, participation and completion rates, the quality and flexibility of training, and the meeting of skills shortages.

In undertaking this research, detailed examination was made of the structural, systematic, regulatory and legislative factors that are specific to New South Wales. The research involved a range of methodologies including employer, apprentice and trainee surveys, stakeholder interviews, statistical analysis and literature review.

This report presents an analysis of primary data sources on apprenticeship and traineeship training in NSW and Australia; a review of research and data sources relevant to the analysis of these trends; the results of extensive interviews with key NSW VET stakeholders, and surveys of employers and apprentices and trainees, and possible policy responses to improve the rate and quality of apprenticeships and traineeship training in NSW.

3.4.1 Trends in Apprenticeship and Traineeship Numbers

There are a number of problems (definitional, statistical etc) with NSW and Australian apprenticeship and traineeship data sources. While these problems indicate that caution needs to be exercised in the interpretation

of absolute numbers of apprentices/trainees, the eventual time series of NSW data should be sufficiently robust for trend analysis.

In summary, the trend of sustained and significant decline in many of the core traditional apprenticeship fields, including electrical, metals and automotive has not been offset by growth in the food trades and relatively steady approvals in skilled agricultural trades. The net effect of these movements has been a significant and sustained reduction in overall apprentice approval levels.

It is the key theme of this report, and of other literature on the topic, that the reduction in apprentice intake has been much greater than that warranted by factors such as structural and technical change, resulting in current and prospective skill shortages in many of the traditional trades.

In terms of the composition of apprenticeship approvals, there have been divergent trends. There have, for example, been differences across trades and industries. There has been a shift away from apprenticeships in the public sector towards the private sector, including a significant increase in the growth of Group Training Companies.

In the late 1990s there has been an increase in the non-completion rate of apprentices.

The number of apprentices in-training in the late 1990s is identical to the level in the late 1970s. Over the twenty one years from 1978 to 1998 the number of apprentices in-training has never experienced a period of such sustained low levels as in the 1990s. Whilst most trades have experienced either declining or static in-training numbers, this does not by itself tell us anything about the significance of these trends in terms of the adequacy of current training levels to meet current and future skill demands. A key factor in determining the adequacy of current training is an examination of training rates.

There are marked differences in training rates across the trades. For example, vehicle, hairdressing and food had training rates in excess of 20 %, whereas metal, electrical and building had training rates around the 10-12 % level. These differences reflect a number of factors, such as the need to have high training rates given high non-completion rates during the apprenticeship and high wastage rates from the trade; it may also reflect high demand for certain trades.

Over the sixteen years from 1983 to 1998 there was a long-run secular decline in the proportion of males amongst apprentices in-training. Over the period males as a share of total apprentices in-training peaked at 92.5 per cent in 1983 and stood at 87 per cent in 1998. Clearly, the apprenticeship system remains dominated by males.

Over the 1990s, notwithstanding large structural changes, the proportions of apprentices in-training across the regions has remained quite stable. There was even a small rise in the contribution of regions outside of Sydney to the total in-training effort.

Traineeship commencements were relatively stable over the period 1991/92 to 1994-95, but increased by around 420 per cent over the following four years to 1998-99 and the rate then further accelerated over 1999-2000.

It would appear that the very rapid growth of traineeships is due to a range of factors such as, the existence of a 'training wage' for these positions to reflect time in training; financial incentives for the employment of trainees; the active promotion of traineeships through New Apprenticeship Centres; the fact that traineeships are concentrated in service industries such as retail, hospitality and communications which have experienced rapid growth in overall employment compared to traditional apprenticeship areas such as manufacturing; the availability of fully on-the-job training delivery for traineeships; the extension of traineeships to 'Existing Workers'; the flexibility with respect to hours of work and training providers in the traineeship system; and potential substitution effect of traineeships for apprenticeships. It is clear from the extensive literature on the current VET system, that some of the factors leading to rapid growth of trainee commencements have also produced poor quality training outcomes.

There has been a large shift in the distribution across the different skill levels over the years, with a large absolute and proportional rise in low skilled and a smaller rise in high skilled occupations. It is of course the case that the objectives and target group of traineeships have changed considerably over the years. Nevertheless, these trends in the occupational structure and corresponding skill level are significant and relevant.

The very large numbers and rising proportion of low skill traineeships, which now account for around 85 per cent of trainee approvals, raises a number of important policy issues for the NSW vocational training system. The principal policy question is that, given scarce resources for vocational training, is the expenditure of very considerable sums on employment and training subsidies for trainees, and the considerable cost of the attendant administrative apparatus for the system, actually meeting strategic skill shortages?

A related key policy issue for the NSW vocational training system is the extent to which it follows private market signals in funding the training of particular occupations, or to what extent it needs to adapt or direct, to varying degrees, vocational training. Another way of expressing this is that the balance may have swung too far in the direction of solely market determined training outcomes, without regard to wider concerns regarding the adequacy of the skill formation effort from a broader economic perspective.

The private sector accounts for the overwhelming bulk of traineeships.

The NSW traineeship completion rate reached a peak of 65 per cent in 1993-94 and has declined to its lowest point of 50 per cent in 1998-99.

3.4.2 Issues for Apprenticeships and Traineeships from the Literature.

A close reading of the literature reveals the following issues.

Low Apprenticeship Commencement Rates: The Australian literature explaining the decline in apprenticeship commencements can be summarised as falling into two broad categories. The first emphasises problems on the supply-side of the training system, such as inflexibilities in the system (curriculum, delivery modes and administrative and regulatory requirements and declining quality of applicants) which are argued to inhibit employer investment in training. The second emphasises demand-side problems, such as structural change in the economy (outsourcing, growth of labour hire, corporatisation of the public sector and reductions in the average size of firms), which reduce employer demand for training. These differing broad interpretations have significantly different VET policy implications.

Vocational Skills Shortages: There is considerable evidence that a combination of reduced apprentice intake over the 1990s, rising non-completion rates of apprentices, continuing high wastage rates from the trades (that is, trades employees electing to work in other occupations) and sustained economic growth over the 1990s has resulted in significant trade skill shortages. The economic implication of these shortages are severe.

In the light of the significant decline in apprentices in-training and apprentice training rates, and widespread trade skill shortages, consideration should be given to a re-allocation of scarce educational resources from the traineeship system to improve the intake and completion rates of apprentices. Furthermore, it is arguable that to some extent both the skill shortages and the absence of special measures to redress them are the inevitable outcome of moves over the last decade to establish a market based training system.

Aside from the issue of trade skill shortages there is the issue of the role of the vocational training system in meeting broader skills needs, especially given that a very large share of traineeships are in low skill occupations.

These developments have major policy implications for the traineeship program in NSW. For example, if it is the goal of the vocational education and training system to actively contribute to the growth of the 'knowledge economy', it may be that mechanisms other than traineeships are the most efficient vehicle to achieve this goal.

Alternatively, some trade-off between equity and an active contribution to meeting the skills of the knowledge economy may be acceptable. In this case, the targeting of a certain number or proportion of traineeships for higher skill fields may be appropriate.

Traineeship Non-Completion Rates: The high rates of traineeship non-completion have been a continuing feature of the traineeship system since its inception in 1985 and is a cause for concern. DETYA identified a range of measures to improve completion rates that could usefully be considered by DET. Some of these include, improved selection of trainees to exclude those at risk of non-completion; improved information for trainees on wage levels and the nature of the work to be undertaken and assistance with trainees in re-commencing their training after having left a traineeship.

Traineeship Target Groups and Objectives: The measures identified above to improve the completion rate of traineeships raise a number of key issues regarding the target group and objectives of traineeships. It is possible to improve completion rates by excluding those labour market groups, such as the young with low educational attainment and prior extended periods of unemployment. Such modifications of the intake of trainees, however, have clear equity implications. There would seem to be a consensus that there is an urgent need to define the precise target group and role of traineeships.

Training Quality: Considerable concern has been expressed regarding the quality of vocational training, especially, but not restricted, to traineeships.

Australian Qualifications Framework: An analysis of traineeship approval data reveals that a large proportion of trainees are undertaking AQF III and IV level courses. This preponderance of higher AQF levels applies equally to low skill occupations such as factory labourer, contract cleaner, security guard, elementary sales and service and boning/slaughtering. The preponderance of these higher AQF levels is anomalous as the objective of the traineeship program is to deliver entry-level training.

3.4.3 Survey Results

Three surveys were undertaken for the project. These included extensive consultations with key stakeholders in the NSW VET System; a mail survey of current apprentices and trainees; and a telephone survey of employers of apprentices and trainees in NSW. The purpose of the surveys was to gain qualitative information on the attitudes and experiences of key stakeholders; employers; apprentices and trainees of the NSW VET system.

In general, these survey results support the other findings of the report. These include, for example, employers' lack of knowledge of the major changes to the current VET system. There is considerable uncertainty on the part of employers as to whether the changes have improved the quality of training. Employers and key stakeholders place much greater priority in the selection of school leavers for employment in VET occupations on literacy and numeracy attainments, and general interest in the occupation for which they are applying, rather than the completion of VET courses at school.

There is some concern at the complexity of the system, notably in the application for training subsidies. Apprentices and trainees were both strongly supportive of their respective training systems. Both employers and trainee surveys demonstrate that trainees operate under more formal training arrangements than apprentices; though this is largely due to the higher proportion of fully on-the-job training for trainees. Close to 100 percent of the off-the-job training of apprentices is provided by TAFE and 75 percent of the off-the-job training of trainees is provided by TAFE. There is strong support amongst employers and apprentices and trainees for the on and off-the-job training they receive. The employer survey provided evidence that a very limited amount of substitution of trainees for apprentices is occurring.

Consultations With Stakeholders: Thirty key stakeholders were interviewed either in person or through telephone interview. In addition, over 100 stakeholders, including state ITABs, TAFE Institutes, Group Training Companies and key industry parties were also contacted by email, phone and/or fax to explain the purpose of the project and to encourage them to respond to the list of standardised questions.

Mail Survey of Apprentices and Trainees: A mail survey of 3000 persons in training in the NSW VET system was undertaken, comprised or 50 percent trainees and 50 percent apprentices. The purpose of the survey was to assess the perceptions of apprentices and trainees regarding their experiences of the VET system.

Employer's Survey: The principal aims of the survey were to investigate employer's perceptions of the quality of training provision in NSW; to identify the extent and type of on-the-job training and assessment; to explore employer preferences for nominal duration or time served for vocational training; and to gauge the extent of knowledge of employers of the VET system and recent changes to this system. A telephone survey of employers was undertaken to investigate these issues. The survey comprised two distinct sample frames. The first sample frame, called the 'study group', included NSW employers registered with DET as currently employing apprentices and/or trainees in a range of broad occupations. The second sample frame, called the 'control group', was drawn from NSW employers, as the 'study group', but they had not employed apprentices or trainees for the past five years. Both sample frames were stratified according to metropolitan or regional occupation and by selected occupation. A total of 543 workplaces were included in the sample frame, of whom 332 workplaces responded, yielding an overall response rate of 61 percent. Of the total responses, 163 were from the study group and 169 from the control group.