

Who's missing out? Access and equity in vocational education and training

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Key messages

- ✧ Effective research into access and equity in vocational education and training (VET) requires a methodology that sheds light on both *who* is missing out on VET and *why* they are missing out.
- ✧ Specific sub-groups of young people systematically miss out on VET; structural barriers also stand in their way. Young people most likely to miss out on VET in the late 1990s were those with disabilities, those still living at home, those from single-parent families, and those from families with a history of parental unemployment.
- ✧ Patterns of disadvantage in accessing post-secondary education and training operate quite differently for VET by comparison with university. The VET system has made substantial gains in improving access and equity over the last 20 years, while access and equity with regard to university has deteriorated.
- ✧ The notion of disadvantage which has informed VET policy-making needs to be reconceptualised. There are major shortcomings in viewing disadvantage in terms of abstract 'client groups'. Target groups for VET equity initiatives need to be specific groups of individuals who face multiple disadvantages.
- ✧ Striking a balance between the pursuit of social and economic outcomes is essential for the success of community-based initiatives designed to address access and equity in VET. Indeed, for individuals who face multiple disadvantages in accessing VET, the pursuit of social outcomes should take precedence, and be recognised as an important stepping stone to the achievement of economic outcomes.
- ✧ A number of community-based initiatives are improving access and equity for groups typically excluded from the VET system. These initiatives seek to overcome the barriers associated with the individual characteristics of people excluded from VET *and* the structural barriers associated with the institutional setting.

Executive summary

Introduction

This report explores some key issues in relation to access and equity in vocational education and training (VET) in Australia. The first issue concerns the two major philosophical positions (the *structural barriers* and *individual characteristics* viewpoints) adopted by the federal government and state governments in developing policies and programs designed to improve access and equity in VET.

The *structural barriers* notion is concerned with the way in which systemic and structural barriers within VET create an educational system which fails to meet or adapt to diversity within the Australian population (that is, *why* individuals miss out on VET). The *individual characteristics* notion focuses on individuals who fail to fit within the broader systems and structures that are meeting the VET needs of the majority of the population (that is, *who* is missing out). In the latter, however, the ‘individual’ is considered as part of a client group identified using broad socio-demographic characteristics. In the 1990s, five of these such groups were identified as being consistently under-represented in the VET system. These include: Aboriginal and Torres Strait Islander people; women; people from non-English speaking backgrounds; people with disabilities; and people in rural and remote communities. However, the report argues that this client group focus approach has met with only limited success, as it can address only general aspects of group disadvantage and does not allow for specific individual needs. The case studies conducted as part of this research show how a philosophy based solely on abstract client group categories makes little sense in real-world settings.

The second issue concerns the two broad positions which have been advanced in the context of the longer-term purposes of VET. The *economics outcome* agenda expects to see VET meet industry’s requirements for skilled labour, and measures the success of VET courses by their labour market outcomes. The *social outcomes* agenda, however, places more value on the outcomes of community development, social inclusion and social justice, and sees greater community involvement and a sense of social connectedness as critical first steps in achieving the longer-term goals of successful labour market outcomes.

Methodology and findings

The research strategy for this project used both quantitative and qualitative data analysis. The former is ideally suited to exploring *who* misses out on VET, while the latter is well placed to answering *why* they miss out. This report looks at both young people and adult workers; a range of specific disadvantages are examined, as are VET initiatives, in which both economic and social outcomes are relevant.

The quantitative research uses statistical modelling techniques to look at the pattern of disadvantage for a sub-group of younger people aged under 25—the ‘youth model’. A sub-group of older people aged between 35 and 40 is used to provide insights into how educational disadvantage operated 20 years ago. Both sub-groups form our second, or ‘historical’, comparative model. In broad terms, young people face three ‘educational’ options once they leave school: university, VET or no further

education. The report explores these three options for two groups of young people: those who left school in the late 1990s, and those who left in the early 1980s.

The findings indicate that those young people most likely to miss out on VET in the late 1990s are those with disabilities, those still living at home, those from single-parent families, and those from families with a history of parental unemployment. While these are disturbing findings, there are some grounds for optimism. Vocational education and training fares much better in terms of access and equity than does the university sector, where additional categories of disadvantage are evident. These relate to parents' occupation, the secondary school sector attended, and having come from an Indigenous Australian background. Moreover, the situation for VET has improved over the last two decades. In particular, male dominance over entry to VET has largely disappeared, and the occupational legacy of a young person's parents counts for far less today than it did 20 years ago. By way of contrast, the situation for universities has not improved, and, in some respects, it has deteriorated. In other words, the optimism is based on comparisons: doing better on access and equity outcomes than universities and improving over time.

It is important to recognise that this optimism cannot be grounds for complacency. These statistical findings are not definitive, and the quantitative analysis is concluded by highlighting some of the shortcomings of statistical modelling. Of particular concern was the inadequacy of the three-outcome dependent variables for identifying important differences in course enrolments within VET. We are also concerned about the way such modelling imposes the need for aggregate categories among the independent variables (such as gender and non-English speaking migrants). These shortcomings are accommodated through two strategies. Firstly, some additional descriptive statistics are presented, which show, among other things, that issues of gender equity within VET remain problematic. Secondly, the qualitative material is used to examine these rather abstract, aggregate categories. This allows us to present a more complex and detailed account of how specific groups of individuals have fared within VET. In this respect, the qualitative research deepens and extends the quantitative research. In addition, the qualitative material provides insights into issues of process, illuminating the tricky question of *why* certain outcomes emerge in the way they do.

The qualitative research conducted for this study looked at a specific group of young people and VET, at training for adult workers and at issues of community development. One case study explored how young people alienated from education were being re-introduced to educational activities through some of the flexible learning initiatives which community-based practitioners have developed in conjunction with technical and further education (TAFE) institutes. Another case study looked at a group of adult workers—in this case, Vietnamese outworkers—for whom a TAFE-based course conducted off campus provided the opportunity to gain skills recognition and increase future options in the labour market. The third case study examined an innovative community development initiative, which aimed to break down the social isolation faced by a group of women living in a public housing estate in an outlying metropolitan area—a group who faced a formidable set of barriers in participating in VET. These detailed case studies are presented as supporting material in appendices 1, 2 and 3 and can be accessed from NCVER's website at <<http://www.ncver.edu.au>>.

The decision to focus on community initiatives within VET was prompted by some important case studies reported in the literature. These case studies—discussed in the literature review—described how VET access and equity issues were being dealt with in a number of different settings. Our own case studies sought to bring more analytical depth to this theme by exploring several key issues:

- ✧ Which specific groups were being targeted by these community initiatives?
- ✧ How was the issue of multiple disadvantage being addressed?
- ✧ How did different levels of funding affect the ability of community-based initiatives to address both structural and individual barriers to VET?

The key qualitative finding was that the notion of disadvantage which has informed VET policy-making needs to be reconceptualised. As the review of the literature demonstrates, there are major

shortcomings in viewing disadvantage in terms of abstract ‘client groups’. The qualitative findings reinforce this view, and emphasise that the target groups for VET equity initiatives need to be specific groups of individuals who face multiple disadvantages. This report argues for a notion of ‘cumulative disadvantage’, the idea that the multiple disadvantages faced by specific groups interact in such a way that the difficulties they face are compounded. For example, when it comes to extending VET programs to homeless young people, these patterns of cumulative disadvantage may include histories of family breakdown, low levels of literacy and numeracy, behavioural, health and legal problems, and chequered histories of engaging with educational institutions.

The qualitative findings also demonstrated the importance of balancing social and economic goals. This does not mean that we simply want to replace the current emphasis on economic goals with a social agenda. Rather, it means that the relevance and value of social goals should be acknowledged, and the decision about how much to realign priorities should be made according to the specific situation, rather than by a prescriptive or abstract policy. With this in mind, our own conclusions for VET policy are not prescriptive. Instead we outline the kind of checklist which should guide policy formulation when it comes to access and equity within VET.

Introduction and literature review

Access and equity in vocational education and training (VET) has been on the national training agenda since the Kangan Committee's recommendations in the 1970s (ANTA 1996a) initiated involvement from the Commonwealth Government in post-compulsory education (Smith & Keating 2003). Government involvement in VET has been varied, but two distinct issues that have been strongly influenced by state governments and the federal government require close consideration when examining ways of improving access and equity in VET for minority and disadvantaged groups.

The first issue concerns the different philosophical positions state governments and the federal government have taken when developing policies and programs aimed to improve access and equity in VET. At the macro level, the philosophical positions for advancing equity in VET have been dichotomised into what their proponents term 'a management of diversity' approach and 'a social justice' approach (ANTA 1998). The first position emphasises the systems and structures that create barriers to entry into VET for minority and disadvantaged groups (Barnett 1999), and will be termed the *structural barriers* philosophy in our report. The second position focuses on measuring and understanding individual characteristics and experiences that have been associated with exclusion from VET (Watson et al. 2000). It will be termed the *individual characteristics* philosophy in this report, and its key characteristic is its focus on 'client groups'. As we shall see, each of these frameworks leads to different approaches in dealing with issues of access and equity in the VET system.

The second issue concerns the longer-term purposes of VET. It is certainly true that education can be viewed as an end in itself, and as a worthwhile activity in any civilised society. However, in the context of restricted budgets and other limited resources, the goals for VET have tended towards more instrumentalist perspectives. Within this instrumentalism there are, moreover, two broad positions which governments and other key players have advanced. There is a more hard-edged *economic outcomes* agenda, which expects to see VET meet industry requirements for skilled labour, and which judges the success of VET courses by their labour market outcomes. But there is also a more open-ended agenda which promotes a *social outcomes* approach, in which community development, social inclusion and social justice outcomes are valued. Both these agendas co-exist within the VET system, and achieving a good balance between them remains an enduring challenge for VET educators and policy-makers. Indeed, it is the key argument of this report that recognition of the need for balance, and for the balance to shift at certain times, should be a cornerstone of VET policy in Australia.

Each of these agendas also has important implications for access and equity to VET, and we will examine this more closely below. It is important to keep in mind that there is no one-to-one match between these two different agendas and these two philosophical positions.

The structure of this chapter is as follows. In the next section, we outline more fully these two different philosophical positions. We will also explore how economic goals have dominated social goals with regard to education and training outcomes, and how this has led to additional barriers for people from minority and disadvantaged groups who face multiple disadvantages. The subsequent sections deepen the analysis outlined in the first section.

In the section ‘Who’s been missing out on VET’, we look more closely at one of the key weaknesses of the *individual characteristics* framework when it comes to developing programs aimed to improve access and equity in VET for minority and disadvantaged groups, and in gaining a more precise understanding of the systemic and structural barriers to entry and participation in VET for these groups.

In the next section, ‘The changing labour market and its effect on VET exclusion’, attention is devoted to fundamental changes in the labour market affecting access and equity to workplace training, and the important role that VET can play in providing an alternative for workers seeking training. It will be argued that segments of the labour market are overlooked in the *individual characteristics* approach, and that closer consideration needs to be paid to the structural changes in the labour market influencing equity in VET.

Finally, in the fourth section, ‘The success of closer targeting of equity programs’, the success of community-based initiatives designed to improve access and equity in VET are outlined. Three defining factors can be attributed to the success of these programs and initiatives. Firstly, these programs and initiatives focused on the identification of more precisely defined ‘community groups’ instead of broader ‘client groups’. Secondly, identification of specific community groups allowed for the development of programs that also addressed systemic and structural barriers in VET. Finally, vis-à-vis measuring program success, these community-based programs and initiatives sought a balance between economic goals (in the form of improved labour market outcomes) and social goals (in terms of encouraging closer connections between program participants and the wider community).

Equity in VET

Philosophical divergence

Both philosophical frameworks have shortcomings when it comes to prioritising access and equity in VET, and in this section we outline why this is so. It is worth noting that the *structural barriers* philosophy has been the dominant framework adopted in Victoria, while the *individual characteristics* philosophy has been favoured in New South Wales and other states. The *structural barriers* philosophy highlights how systemic and structural barriers within VET create an educational system that fails to meet, or adapt to, the extensive diversity within the Australian population. It is argued that, within this framework, advancing equity becomes a matter of reviewing organisational systems and structures that create barriers to entry and participation in VET and then identifying more flexible responses to managing diversity (Barnett 1999).

On the other hand, the *individual characteristics* approach focuses on how the individual fails to fit into broader systems and structures that manage to meet the needs of the majority of the population. Its equity goals are advanced by identifying groups of individuals with similar generalised social, economic or circumstantial factors that contribute to the under-representation of these groups in the VET system, and then developing and targeting programs aimed at overcoming these disadvantages (Watson et al. 2000).

At the macro policy level, the individual characteristics approach has become the foundation for many government policy and program interventions. In the mid-1990s, the Australian National Training Authority (ANTA) identified five main client groups along broad socio-demographic characteristics who were consistently under-represented in the VET system (ANTA 1996b). These client groups were identified as:

- ✧ Aboriginal and Torres Strait Islander people
- ✧ women
- ✧ people from non-English speaking backgrounds

- ✧ people with disabilities
- ✧ people in rural and remote communities.

There are clearly limitations with each of these philosophies, particularly when they shape policy at a micro level. In the case of the *individual characteristics* framework, we can discern two clear limitations in focusing solely on client groups. Firstly, only those factors associated with barriers to entry into VET solely attributable to the individual are placed under scrutiny, and there is little recognition of systemic or structural barriers. Secondly, this framework ignores the diversity that exists among individuals within each client group because it assumes a certain homogeneity among the client group. In practice, it leads to a ‘one size fits all’ approach to improving equity in VET for each client group. On the other hand, the *structural barriers* framework approaches access and equity issues with a focus on ‘cultural and community ignorance’, ‘sexism’, ‘discrimination’, and so forth. In so doing, it can often neglect individuals, and thereby overlook the important questions of who actually does access VET and why they access that institution (McIntyre & Egg 2001).

In the same way that a balance is needed between the economic and the social agenda, so too is a merging of the best elements from each of these philosophical frameworks required. On the one hand, it is necessary to understand the individual characteristics of those who take part in VET, as well as those who miss out. This is the critical *who* question. At the same time, we must not ignore the specific systemic and structural barriers which operate in the VET system, in the labour market and in the wider community. This leads to the critical *why* question. As we argue later, the methodology behind this research project has focused on both these questions, and has sought to transcend the limitations apparent in each of these philosophical frameworks. The goal of sound research should entail gaining a better understanding of the diversity that exists among client groups, while also gaining an understanding of the systemic and structural barriers that more specific minority and disadvantaged groups have faced in accessing and participating in VET.

The influence of economic and social outcomes on equity in VET

In the 1980s the emerging dominance of economic outcomes in determining the principal function of education and training shifted the emphasis away from social participation and the ideals of universal access, characteristic of the 1970s (for example, Kangan 1974). With declining economic conditions in the 1980s, the Commonwealth’s approach to the national training agenda emphasised increasing competitive advantage through improved technologies and a more highly skilled labour force (Smith & Keating 2003). In the 1990s the importance of servicing the needs of enterprises and improving the competitive advantage of industry were still very much apparent (for example, Kemp 1998; Nelson 2003). Although the rhetoric of social goals remained in parlance, these goals were embedded within economic outcomes as a means of bridging the divide between welfare and the labour market (Ferrier & Anderson 1998).

With the focus on economic outcomes, VET is predominantly and necessarily labour-market-driven (Carnoy 1994) and the economic benefits to individuals who have participated in VET are apparent. When compared with no post-school education qualification, the completion of a VET qualification is related to better labour market outcomes, both in terms of increased likelihood of full-time employment, as well as better wage and occupational opportunities (Ryan 2002).

The labour market advantages associated with completion of VET highlight the importance of striving to achieve a VET system that equitably distributes these advantages to different social groups within the community. Indeed, the focus on economic outcomes places greater pressure on achieving equity in VET, as lifelong learning becomes integral to participation in the labour market and to the success of individuals in increasingly competitive markets (Watson et al. 2003). However, for many different social groups, equity in VET has not been achieved in terms of access or outcomes (ANTA 1998) and therefore the success of VET as a conduit between welfare and the labour market is, at best, limited.

One of the reasons for VET's limited success in improving access and equity may lie in the overwhelming importance of economic goals and the lip service paid to social goals at the policy level. In striving to achieve economic goals—particularly in the form of specific labour market outcomes—VET may actually be erecting other barriers to accessing VET for minority and disadvantaged groups. Many disadvantaged social groups face multiple and cumulative disadvantages with regard to equity in VET (Golding & Volkoff 1998). We use the phrase 'multiple and cumulative disadvantages' throughout this report as a way of emphasising that a number of disadvantages often attach to specific community groups, and their interactions are such that the problems which they give rise to compound one another over time.

Evidence from community-based programs suggests that labour market outcomes should not be the primary focus for individuals who have had to overcome multiple disadvantages in accessing the VET system for the first time (for example, Durnan & Boughton 1999). Rather, improving social outcomes through VET participation, in terms of greater community involvement and a sense of social connectedness, may actually be the first step, or the first in a series of steps, in achieving the longer-term goals of successful labour market outcomes.

While social goals may never become more important than economic goals in relation to public expenditure on education and training, it may be time to recognise, once again, the importance of achieving a balance between social and economic goals. Indeed, in some instances, particularly where multiple disadvantages have to be overcome, the achievement of social goals may be a necessary precursor to the achievement of economic ones.

Who's been missing out on VET?

The *individual characteristics* framework has relied on the identification of client groups based on abstract and generalised socio-demographic characteristics to improve equity in VET. Some of the weaknesses in this approach—its neglect of structural factors and its homogenising of client groups—have been identified, and in this section we look more closely at this second weakness. We show how the *individual characteristics* approach ignores diversity among client group members and focuses solely on broad group characteristics related to access and equity issues in VET. In addition, we also show how the prevailing client group approach has failed to consider the emergence of additional social groups who face significant barriers to entry into VET as a result of fundamental changes to the labour market over the last two decades.

Weaknesses of the client group focus

The client group approach has relied on quantitative analysis to identify generalised socio-demographic characteristics which are then used to define social groups who have been under-represented in VET. When dealing with public funds, this approach has the obvious advantage of casting a much wider net in its attempt to address access and equity issues. The disadvantage, however, is that it masks the diversity that exists between client group members. For example, the 'Aboriginal and Torres Strait Islander' client group ignores the extreme cultural and linguistic diversity that exists among these people. Obviously, programs targeted at such broad client groups can have only limited success, because they address only general aspects of group disadvantage, and not specific individual needs (Barnett 1999). Furthermore, the limits of this approach are exacerbated by the cumulative disadvantage faced by individuals who belong to many different target client groups (Golding & Volkoff 1998). For those faced with cumulative disadvantage, targeted programs may actually stifle any opportunity to access VET, as individuals struggle to judge the relevance of different programs on offer (Watson et al. 2000).

Australians in the 15 to 19-year-old age group provide a clear example of how the client group approach falls short of advancing access and equity in VET. Access to and eligibility for participating in VET currently begins in compulsory secondary schooling at age 15. During the 1980s there was widespread expansion of VET programs in secondary schools as a direct response to

rising retention rates and the increasing demands this placed on schools to accommodate a more diverse student body (Lamb, Long & Malley 1998). However, the take-up rate of VET in Schools remains relatively low and provides no guaranteed pathway to further education and training. Although students who have studied vocational subjects in Years 11 and 12 are more likely to go on to further studies in the VET sector, compared with students who haven't taken VET subjects, they are also far more likely than any other students to not engage in any further formal education and training at all by the age of 19. Although participation rates are highest among 15 to 19-year-olds (NCVER 2001), young people are still identified as a client group because of the relative disadvantage faced by youth with regard to access and successful completion of VET (Ball 1999). Nevertheless, despite extensive growth in post-compulsory education and training opportunities during the 1990s, 30% of school leavers were not undertaking VET or any other formal education and training (Lamb, Long & Malley 1998).

There is obvious scope for improvement in the current broad-sweep approach to identifying client groups. Despite 25 years of policy and program initiatives aimed to improve access and equity in VET, gender discrimination, social and educational disadvantage, and cultural and linguistic differences still present significant barriers to entry into VET (Powles & Anderson 1996). In addition to the traditional barriers associated with market mechanisms, discrimination, and curriculum which have impeded access and equity in VET for client groups, new barriers have developed as a result of reforms to fee structures and delivery and assessment methods (Anderson 1998). Radical changes to the Australian labour market since the early 1980s have also raised concerns about the efficacy of continuing with such a broad approach to identifying client groups.

The changing labour market and its effect on VET exclusion

The transformation of the Australian labour market over the last 20 years has significantly affected access to training and skill formation opportunities for all workers. The workplace was once a traditional site for training for workers. However, access to employer-funded training declined substantially during the late 1990s and left individuals with greater responsibility for accessing and funding their own training (Cully & Richardson 2002; Hall, Buchanan & Considine 2002). Three substantive labour market changes in particular bear closer consideration when assessing access and equity to VET.

Getting left behind: Credential creep

'Credential creep' refers to the increasing tendency for hiring criteria, particularly those of education level and/or qualifications, to exceed those which are required to successfully perform the work (Livingstone 1999). In Australia, credential creep has gone hand-in-hand with the increasing expectation among employers that workers be 'job ready' and has coincided with declining levels of employer-provided and -funded training. Whereas VET once provided training that complemented workplace skill formation, it is now responsible, in some respects, for *replacing* workplace training. Credential creep has not been restricted to high-paid or high-skilled jobs and is increasingly affecting low-paid, low-skilled and entry-level work (Buchanan et al. 2001; Livingstone 1999). The real effects of credential creep in relation to access and equity in VET on the lower end of the labour market are yet to be specifically investigated. However, as Australians increasingly take responsibility for skill formation, it is apparent that levels of education and qualifications among workers, including those who are considered low-paid and low-skilled, are rising (Considine 2001). With regard to the VET sector alone, enrolments during the 1990s increased by almost 800 000 and corresponded to an increase in enrolments from 8.4% of the working age population to 13.2% (NCVER 2002). A major aspect of this growth has been the rapid expansion of traineeships which have been characterised by some researchers as being more indicative of labour market programs than skill development initiatives (for example, Cully & Curtain 2001). It is not hard to recognise that, as it becomes increasingly difficult to secure low-paid low-skilled work without formal training

and qualifications, access to and participation in VET becomes even more important to segments of the labour force that may never previously have considered VET a necessity (Watson et al. 2003).

Getting left out: Non-standard employment

The second labour market change affecting access and equity in VET is the rapid expansion of non-standard forms of employment and the decline in full-time permanent work. Part-time and casual work, labour hire and outworker arrangements are characterised by low-paid and low-skilled work with high levels of job insecurity—for example, elementary sales and service workers, contract cleaners, and clothing outworkers (Watson et al. 2003). Increasing the disadvantage faced by workers in non-standard forms of employment is the limited access to training and skill development opportunities typically associated with these forms of work (Australian Centre for Industrial Relations Training and Research 1999). However, as these forms of employment increasingly represent growing numbers of workers, exclusion from VET becomes more meaningful for larger segments of the workforce, and therefore closer consideration, in terms of exclusion from the VET system, is warranted.

Getting substituted: Structural unemployment

The third aspect of labour market change that may influence access and equity considerations with regard to VET are those associated with structural unemployment as a result of extensive job losses in many Australian industry sectors. Sweeping reforms in the manufacturing and public sectors, in particular, have eliminated many blue-collar, prime-aged, male-dominated occupations that were intrinsically incorporated into the VET system through apprenticeships and skill maintenance courses (Burke 1998). Although these retrenched workers have had previous, and in many instances extensive, experience with the VET system, structural unemployment and obsolete skills, compounded by possible age discrimination, have placed them at a significant disadvantage in terms of re-entering the labour market. Furthermore, although it is unlikely that these retrenched workers would be going into the growth areas of the labour market in retail and hospitality, sales and service work, they nevertheless may require significant re-training through the VET system to secure any employment.

Together the three labour market changes outlined above have significantly increased the pool of workers who may be missing out on training and skill development opportunities in the workplace. Although Australian Bureau of Statistics (ABS) labour force data shows that access to training courses for wage and salary earners has increased since the late 1980s, in real terms, actual annual hours spent in workplace training has decreased (Watson et al. 2003). Within the Australian workforce these skill development issues are creating increasing occupational segmentation. On the one hand, there are jobs that constitute an expert core of workers who receive training, and on the other hand, there are jobs that constitute non-standard forms of employment characterised by low-skilled work in which there is limited, if any, access to workplace training (Hall, Buchanan & Considine 2002). Under these labour market conditions, barriers to access and equity in VET for those missing out on workplace training needs to be examined.

The success of closer targeting of equity programs

The economic benefits of closely addressing access and equity issues in VET for very specifically defined community groups have been demonstrated in practice. Particularly successful have been programs and interventions that have not only aimed to improve access and equity in VET, but have also been tailored to address associated labour market problems and issues arising from discrimination in the workplace (Borthwick, Roussel & Briant 2002, p.27). In addition, numerous studies illustrate the success of tailoring the client group approach to meet the more specific needs of small community groups. Successful community group approaches have targeted access and equity in VET on three dimensions.

Firstly, the community group approach recognises diversity and identifies individual characteristics which are far more specific than those identified by the broader client group approach. The second dimension of the community group approach is that, in focusing on specific community groups, closer attention is paid to the systemic and structural barriers that restrict access and equity in VET for these group members. Finally, the community group approach balances economic and social goals and strives to achieve realistic outcomes for community group members. Numerous reports detail the nature and extent of these three dimensions to the community group approach undertaken for and by Indigenous Australians (for example, Durnan & Boughton 1999; Schwab 1998), disadvantaged young people (for example, Angwin et al. 1998; Spierings 2000), people in rural and remote communities (for example, Rural Industry Working Group 2001), people with disabilities (Barnett 2002), and people in correctional institutions (for example, Semmens 1998; Semmens & Oldfield 1999).

We explore some of these themes more fully in our qualitative research, where we present three detailed case studies based on field work. In the final part of this literature review we also address these themes, drawing on case study research conducted by others.

Each of the following examples of community-based initiatives provides a slightly different perspective on approaches to overcoming access and equity in VET for relatively small sub-groups at the community level. The Aboriginal programs improved access and equity in VET by focusing on issues faced by Indigenous people and by developing greater involvement with Indigenous culture. The Whittlesea program developed stronger connections between the young people and the broader community by including access and equity in VET in a multi-faceted approach to reducing overall disadvantage. And the Gateway to Awareness for Training and Employment project addressed discrimination in the workplace by improving employer awareness of the capabilities of young people with a disability.

Federation of Independent Aboriginal Education Providers

Noteworthy educational, labour market and social outcomes are being achieved by the Federation of Independent Aboriginal Education Providers through Aboriginal community-controlled adult education programs in Sydney, Adelaide and Alice Springs. These programs have been specifically tailored to address both barriers to participation in VET, and community needs. In reducing barriers to entry into VET, these programs addressed a range of issues, including literacy and numeracy, enormous cultural and linguistic diversity within the Indigenous population, and a range of social issues, including health, personal and domestic violence, substance abuse, forced separation from parents and incarceration. However, community needs were also integral to the training offered, including a diverse range of accredited courses such as Aboriginal Communities and the Diploma of National Indigenous Legal Studies and Aboriginal Dance Apprenticeship Training, as well as non-accredited preparatory certificates, including cultural instruction, cross-cultural awareness, tour guiding, and language programs (Durnan & Boughton 1999).

Whittlesea Youth Commitment partnership

The Whittlesea Youth Commitment partnership in a fast-growing outer Melbourne semi-rural suburb is a program with strong community involvement from a range of educators, employers and training providers, which aims to improve the transitions from school to work for young people within this disadvantaged community. This program, and indeed its success, is due to the multi-faceted approach it takes in meeting a range of holistic objectives designed to improve the social connectedness and to reduce social and economic disadvantage of young people in the region. However, a key component of the program is the customisation of curriculum within schools, technical and further education (TAFE) institutes and among other training providers in order to more effectively meet the specific needs of young people not in full-time work or education (Spierings 2000). In particular, the Whittlesea program extends beyond a traditional broad target group approach by providing individually customised learning pathways, mentoring and other

initiatives embedded within the local community and which address the specific regional barriers to successful school-to-labour market transitions for young people, including access and equity in VET.

Gateway to Awareness for Training and Employment (GATE)

Initiatives designed to achieve economic outcomes for people with disability by improving their access to VET have to confront problems of discrimination in the workplace, as well as a lack of awareness among employers of the capabilities of people with disabilities. The GATE (Gateway to Awareness for Training and Employment) project in Launceston, Tasmania, aimed to improve access and equity in VET for young people with disabilities, by developing pathways into jobs in the manufacturing sectors within this region. Through VET in Schools initiatives and by working closely with students and employers, the project enhanced participation in post-compulsory education among young people with disabilities and broke down barriers between VET and specialist employment sectors by addressing discrimination in the workplace (Barnett 2002).

Summary

Together, these three community-based initiatives demonstrate the success of improving access and equity in VET for minority and disadvantaged groups. By focusing on smaller, more specific community groups, and by addressing the systemic and structural barriers to VET participation which these groups face, programs such as these have incorporated both economic and social goals into their activities. However, while these programs are very descriptive of their efforts in developing programs to address access and equity in VET, they have not been analysed to identify the relationship between barriers to VET participation and multiple disadvantage. The assessments of these programs presented in the literature (Barnett 2002; Spierings 2000; Durnan & Broughton 1999) provide valuable accounts of how access and equity have surfaced within VET. They do not, however, delve more deeply into the relationship between VET participation and issues of multiple disadvantage. It is this analytical shortcoming which we seek to address in our own fieldwork case studies (presented in detail in appendices 1 to 3, which can be found in the support document at NCVET's website <<http://www.ncver.edu.au>>).

Conclusions

While the two philosophical frameworks discussed in this chapter remain quite distinct, there is much more overlap on the ground. Certainly, these frameworks still shape policy prescriptions, but at the community level we find a different story, where convergence is much more evident. At the community level, diversity is scrutinised to uncover patterns of disadvantage that are not only manageable, but are also meaningful at a local level. Successful VET programs are often characterised by processes in which specific community groups are identified, and in which multiple and cumulative patterns of disadvantage are targeted. At the same time, community-based interventions have been able to identify systemic and structural barriers faced by community group members.

Similarly, those who advocate the importance of economic goals within VET programs may secure funding. But in practice, a focus that completely subsumes social goals may erect barriers to entry into VET, particularly for individuals faced with multiple and cumulative disadvantages. As has been demonstrated by successful community-based initiatives, striking a balance between economic and social outcomes is essential. Making judgements and allowing, in some instances at least, social goals such as community involvement and social connectedness to take precedence over economic goals may, in the longer term, secure labour market outcomes that may not otherwise be achieved—if paid employment is the only criteria with which to measure success.

Currently, there is no systematic identification of the various community groups which stand to benefit from specialised programs aimed to improve access and equity in VET. The responsibility for the current development of community-based initiatives rests solely on innovative communities and key stakeholders within those communities. Advancing access and equity in VET beyond

current levels will be difficult to achieve without a greater understanding of the heterogeneity that exists within the currently defined client groups and within emerging social groups that face disadvantage due to labour market changes. As we have argued in this chapter, the *individual characteristics* approach has reached its limit in furthering access and equity in VET. At the same time, the *structural barriers* approach remains too limited because of its failure to engage with individual realities. What is now needed is a more holistic perspective which combines the best of each approach. It needs to examine closely the individual, labour market and household characteristics which contribute to diversity in community groups. At the same time, it also needs to highlight those barriers which block access and participation in the VET system for these very specific groups of individuals.

Research design: Questions and methodology

Research strategy

The previous chapter makes it clear that a particular perspective has been adopted on how the issue of access and equity within VET should be approached. This perspective is characterised by a research strategy which emphasises:

- ✧ *the need for philosophical convergence*, in which the best insights from the *individual characteristics* framework are wedded to the strengths of the *structural barriers* framework
- ✧ *the need for grounded research*, in which statistical modelling is complemented by qualitative research material.

In relation to the second point, while statistical modelling is of great value, it does have its limitations. Indeed it shares some of the same limitations as the narrow client group approach, such as homogeneous and rather abstract categories. It is crucially important, therefore, that realistic, grounded research findings are also brought to bear on the same research problems. This means engaging in detailed qualitative research, particularly field-based case studies. This qualitative material is far from simply ‘illustrative’. Indeed it is critical for answering *why* questions, for exposing structural processes at work, and for highlighting the experiences of specific groups of individuals. By contrast, statistical models must—by necessity—ignore *why* questions, as well as ignoring the specificity of its categories.

Statistical modelling

The rationale for statistical modelling is that descriptive statistics, such as cross-tabulations, can be misleading. For example, it may appear from such tables that gender is strongly associated with a particular outcome. However, this association may be due to a third factor (sometimes called a ‘lurking’ variable or a ‘confounder’), which is not evident in the two-way table under scrutiny. In terms of labour market and educational data, this often surfaces as a result of ‘compositional effects’: the reason a particular ethnic group has certain outcomes is shaped by the fact that it contains an above-average proportion of women, or an above-average proportion of highly educated men, and so on. The great strength of statistical modelling over cross-tabulations is that it can control for these other effects and produce what we might call ‘net effects’. That is, we can examine the association between, say, gender and a particular outcome, with all other factors held constant.

In the modelling employed in this report we attempt to move beyond some of the shortcomings of the client group approach, by including ‘structural’ factors in the model, and by developing an ‘historical’ model which attempts to capture some of the changes which have taken place in recent decades. For statistical modelling, we adopt a particular research strategy. We explore what patterns in young people’s characteristics appear to be correlated with three kinds of educational outcomes: VET, university, or no further formal education at all. If there are patterns of disadvantage which work against university access, do they also work against VET access? What is unique about VET access compared with these two other outcomes? Finally, how have patterns of disadvantage evolved over the last 20 years? Has access to VET improved? What enduring patterns of educational disadvantage are still evident?

Firstly, the inclusion of the university outcome in our model provides an important historical and sociological perspective to the issue of access and equity in VET. Historically, VET (in its earlier incarnations) was the main destination for most working-class youth who undertook some form of institutionalised post-school education. From the 1940s onward, teachers' colleges provided an important avenue away from manual employment for working-class youth, because universities were only open to a tiny fraction of this group (mainly through scholarships or gaining entry as returned soldiers after the Second World War). In the 1970s this situation began to change. The expansion of colleges of advanced education and the steady growth in teachers' college enrolments allowed far larger numbers of working-class youth to escape a future based on manual labour. As a consequence of these new opportunities, the skilled trades became less attractive to the more able working-class youth. As university education expanded dramatically during the 1980s, this trend accelerated. In 1984, the Australian National Opinion Polls (ANOP) surveyed 15 to 24-year-olds about their further education plans, and found that 22% were interested in TAFE, while 19% were interested in university. By 1990, the level of interest in TAFE had nearly halved to just 12%, while interest in university had increased to 31% (Dawkins 1992). In other words, by the 1990s, university and VET were 'competitors' for a large group of young people, including those who in the past would never have considered that their futures lay in a university destination.

Secondly, from a sociological perspective, there is a long tradition of exploring educational disadvantage from the perspective of family background and structural factors. Beginning with the Coleman research in the 1960s, educational researchers have sought to understand the relative contributions which family background and the schooling system make to educational outcomes (Coleman et al. 1966). Coleman's initial findings were that family background mattered more than the schooling system when it came to school outcomes—a finding endorsed by some later researchers (for example, Hanushek 1986), but rejected by others (for example, Ferguson 1991; see Kain & Singleton 1996, p.88 for an overview of this literature). While our approach does not seek to make the same assessments this earlier tradition pursued (we do not examine, for example, school test results), we do build upon its insights. In particular, our interest is focused on how family background shapes the post-school opportunities for young people, and whether what we call 'structural factors' (in our modelling, school sector) are also important after controlling for the family factors. To pursue this strategy, we also need to include university, because it is one of the post-school opportunities which young people confront. Choice is always relative, and opportunities to access VET are shaped by what other opportunities exist. Phrasing this observation in terms of our research design, we would argue that patterns of educational disadvantage shape all post-school destinations, but they may not apply in the same way for each destination. If we are to explore these differences, we need to consider all post-school destinations.

Implementing our approach entails two kinds of models. First, we fit a model, which includes demographic and family characteristics of young people and associated structural factors, and ask how these are related to the three kinds of educational outcome just discussed. By demographic we mean gender, Indigenous background, non-English speaking background, and disability. Included in family characteristics are factors such as: whether the person is still living at home, whether their family is headed by a single parent, whether their father had been unemployed at some stage in the past, and the occupational background of the parents. Finally, by structural factors, we mean the educational sector in which they undertook their secondary schooling—that is, whether it was a government, Catholic, or independent school they had attended. In this first model, our population of interest is composed of respondents aged under 25, excluding those still studying at school. Our outcomes are defined as:

- ✧ VET qualifications, or currently studying at VET
- ✧ university qualifications, or currently studying at university
- ✧ no formal post-secondary school educational experience.

Our second model involves comparing this first population with a group of respondents aged between 35 and 40, excluding those respondents who migrated to Australia after the age of 15.

Unfortunately, not all of the same variables found in the first model can also be included in the second model (because they apply to the current situation of the respondent, not the situation which applied when they were young, such as current disability or currently living at home). Our reason for focusing on this population of middle-aged respondents is that they offer insights into how educational disadvantage operated 20 years ago. We make the reasonable assumption that most of these middle-aged respondents underwent their post-secondary educational experiences (if any) around the ages of 15 to 20, so that the situation which prevailed in the late 1970s or early 1980s is captured in the kinds of educational outcomes which they report. In this respect, we are exploring the historical dimension to educational disadvantage as it has applied to both VET and university experiences.

For both of our models, we make use of logistic regression, a common modelling strategy for dealing with categorical data; that is, data where there are discrete outcomes (such as VET or university). Specifically, we make use of a multinomial logit model, an extension of the binomial logit model. This allows us to make comparisons among three possible educational outcomes: VET, university and no education. In presenting our findings, we provide the results from our model in the form of odds ratios (or what are also called relative risk ratios or conditional odds). These express the change in the odds of one outcome vis-à-vis another (such as VET experience compared with no educational experience) as each of the independent variables is changed, with all the other variables held constant (the usual *ceteris paribus* [all things being equal] assumption found in linear regression). In terms of dummy variables, this means a change from one category to another (such as male to female). Compared with a binomial logit model, where there are only two outcomes and hence one set of odds, with a multinomial logit, there can be several sets of odds (for each combination of educational outcomes). While this adds some complexity to the discussion, the use of odds ratios remains a better method of presentation than simply listing coefficients, an approach which provides no meaningful story (since these coefficients express the results in terms of log odds, not a metric commonly encountered). The possible combinations of odds ratios in our analysis include: VET compared with no education, university compared with no education, and VET compared with university.

Data

The statistical data used in this report are drawn from the Household, Income and Labour Dynamics in Australia Survey carried out by the Melbourne Institute (2002) on behalf of the Commonwealth Department of Family and Community Services. Household, Income and Labour Dynamics in Australia is a household-based panel survey whose first wave occurred in 2001 and which provides data on more than 13 000 individuals. For the analysis in this report, we have used two sub-populations:

- ✧ those aged under 25 (excluding those still studying at school), a group which numbers 1537 individuals
- ✧ those aged between 35 and 40 (excluding those who migrated to Australia aged over 15), a group which numbers 1517 individuals.

The data in the Household, Income and Labour Dynamics in Australia Survey are very rich and of a very high quality. This allows us to model factors which have rarely been available. These include items such as: disability, father's past experience of unemployment, and single-parent parent status of the family. These last two factors are both available for when the respondent was aged 14, and thus provide particularly useful family background data for modelling educational outcomes for both sub-populations. Disability is only available as part of the respondent's current status, and is therefore dropped when the middle-aged sub-population is modelled. We have used it for the under-25 sub-population on the reasonable assumption that, for most of these respondents, the disability would have been present during their years of potential post-school secondary education. The key variables used in our modelling and their definitions are to be found in appendix 4 (which is provided in the support document at NCVER's website <<http://www.ncver.edu.au>>).

Qualitative research

The case study analysis began with an identification of specific community-based initiatives different from each other in two respects. In the first instance, we were interested in examining initiatives targeted at different community groups. By analysing these different community groups, we were able to examine a broader range of individual experiences with regard to disadvantage in VET participation and how multiple disadvantages are addressed. In the second instance, we were interested in examining the effect that different levels of resources had on alleviating access and equity issues in VET. From this perspective we were also interested in examining how different levels of funding affected the ability of community-based initiatives to address both structural and individual barriers to VET. In considering the range of issues that we were able to explore through different community groups and different resource levels, we were able to examine how social and economic outcomes were balanced at the community level.

In our first case study, we examine Behind the Label, a three-year, \$4 million New South Wales Government initiative. One of the aims of this initiative was to address access and equity in VET for migrant women working as outworkers in the textile, clothing and footwear manufacturing industry. This initiative had the highest level of resources relative to the other initiatives examined.

The second case study explored a two-year Commonwealth-funded partnership arrangement between the Salvation Army Oasis Youth Network and Waverley Action for Youth Services (WAYS) organisation. The Flexible Learning Oasis and Waverley Action for Youth Services (FLOW) initiative was aimed at reconnecting homeless and disadvantaged young people with learning and education. The level of funding for this initiative was substantially lower than that of Behind the Label, but for the purposes of this research, it constituted a medium level of resources.

In our third case study we examined the Claymore Animation Program. This is an ongoing initiative primarily independently funded by various religious orders with occasional subsidies from government grants. The program is based on a model of community empowerment to develop the knowledge, skills and leadership abilities of community residents in a public housing estate in an outlying metropolitan area. By comparison with the other initiatives examined, the Animation Program had relatively low levels of funding.

While our modelling provides the best insights into demographic, family and structural patterns of disadvantaged people with regard to participation in VET, our case study analysis allows us to disaggregate these abstract statistical categories and examine the actual experiences of specific groups of individuals. We turn then to an examination of why such characteristics are related to educational outcomes, and specifically, why they are related to access and equity issues in VET. The range of questions which informed our qualitative field work included the following:

- ✧ How are demographic, family and structural characteristics operationalised at the level of individual experience?
- ✧ What is the relationship between these factors in contributing to disadvantage in VET?
- ✧ Why, after years of intervention strategies aimed at improving access and equity, do barriers to VET still exist?
- ✧ How, if at all, is multiple disadvantage addressed?
- ✧ Does a holistic perspective, one which approaches access and equity issues in VET from both a *structural barriers* philosophy and an *individual characteristics* philosophy, provide greater insights than can be gained from merely aggregating the findings from each of these individual frameworks?
- ✧ How are 'social outcomes' and 'economic outcomes' balanced by community-based initiatives?

Research findings: Results of statistical modelling

Introduction

As outlined in the last chapter, we fitted two models to the Household, Income and Labour Dynamics in Australia Survey data: a youth model and what we have termed an ‘historical’ model. The youth model only makes use of the youth sub-population discussed in the last chapter, while the historical model looks at both sub-populations. The technical results are to be found in appendix 4. In this chapter we outline the key findings and then supplement these with some descriptive statistics. These are included for important methodological reasons which are discussed below. This discussion makes extensive use of odds ratios (also called relative risk ratios), a concept which was briefly explained in the last chapter: these ratios express the change in the odds of one outcome vis-à-vis another, such as VET compared with no educational experience, as each of the independent variables is changed (for example, gender), with all the other variables held constant. (Incidentally, odds ratios below one are unfavourable, those above one are favourable, and those in the region of one indicate no association.) We also make use of predicted probabilities, a concept explained more fully below.

The youth model

So what can we say about VET outcomes? Who is less likely to undertake VET and who is more likely? Using as a comparison ‘undertaking VET versus undertaking no further education’ (see table 1), we find four categories of educational disadvantage when it comes to VET:

- ✧ *young people with disabilities*: the odds of someone with a disability undertaking VET are only 60% of those of someone without a disability.
- ✧ *young people still living at home*: the odds of someone living at home undertaking VET are only 70% of those of someone who has left home.
- ✧ *young people from single-parent-parent families*: the odds of someone from a single-parent family undertaking VET are also only 70% of those of someone from a family which is not headed by a single parent.
- ✧ *young people from a family where the father has been unemployed at some stage in the past*: the odds for this particular group undertaking VET are also only 70% of those of someone whose father has no history of unemployment.

In summary, both demographic and family background factors make up the pattern of educational disadvantage that appears to operate when it comes to VET. What about university? What pattern of educational disadvantage operates in this domain and how does it compare with VET?

Using as before ‘undertaking university compared with no further education’ (see table 1), we find that three of the four categories of educational disadvantage noted above are also evident, although in each case, the magnitude of disadvantage is greater:

- ✧ *young people with disabilities*: 40%
- ✧ *young people from single-parent families*: 20%
- ✧ *young people from a family where the father has been unemployed at some stage in the past*: 60%.

In addition, there are three other categories where the odds are much reduced:

- ✧ *young people from an Indigenous background*: the odds for this particular group undertaking university, compared with undertaking no education, are also only 30% of those of someone who is not from an Indigenous background.
- ✧ *young people who do not have a parent from a professional or managerial occupation*: the odds for this particular group are not shown directly in the table. Rather, the advantages of having a professional or managerial parent are shown as the increased odds vis-a-vis other occupations (nearly double) of undertaking university, compared with no education.
- ✧ *young people from government schools*: the odds for this particular group are also not shown directly in the table. Instead, the advantages of going to independent and Catholic schools are shown as the increased odds vis-a-vis government schools (double, and nearly four times, respectively) of undertaking university, compared with undertaking no education.

In summary, demographic, family background and structural factors are all part of the story when it comes to the pattern of educational disadvantage attached to university outcomes. Not only does this outcome introduce new factors into the story compared with VET, but it is also clear that the university outcome is associated with deeper levels of disadvantage where they share factors in common (such as disability and single-parent backgrounds).

The key story which emerges from table 1 is that most of the demographic, family and structural characteristics of young people are not statistically significant when it comes to VET outcomes. By way of contrast, there is a much deeper pattern of disadvantage associated with undertaking university. In essence, the pattern of educational disadvantage associated with undertaking university is both distinctive and profound. It accords with well-known findings in the sociology of education literature and with other contemporary research. By way of contrast, the pattern of disadvantage associated with undertaking VET is very much weaker.

Table 1: Odds ratios from multinomial logit model (young people)

Characteristics	Educational outcome		
	VET/Other	Uni/Other	VET/Uni
Male	1.1	0.7*	1.5*
Indigenous	0.7	0.3*	2.4
Disability	0.6*	0.4*	1.5
Still living at home	0.7*	1.2	0.6*
First-generation NESB migrant	0.9	1.3	0.7
Second-generation NESB migrant	1.2	0.8	1.5
Single-parent parent family	0.7*	0.2*	2.7*
Father unemployed at some stage	0.7*	0.6*	1.2
Parent with professional or managerial occupation	1.0	1.8*	0.5*
Parent with trades occupation	0.7	0.5*	1.4
Catholic school	1.1	2.1*	0.5*
Independent school background	1.3	3.7*	0.3*

Notes: Population = Persons aged under 25, excluding those still at school.
Omitted categories for the dummies are: female, non-Indigenous, those without a disability, those not living at home, Australian-born with Australian-born parents, non-single-parent parent families, parents who are neither managers, professionals or tradespersons, and government schools.

* Statistically significant at 0.05.

Source: Household, Income and Labour Dynamics in Australia Survey data

As well as odds ratios, the results of multinomial logit modelling can also be presented as predicted probabilities. These reflect the probabilities of educational outcomes as each independent variable (for example, gender and parental occupation) changes from one category to the other; for example, from male to female. It is common in presenting predicted probabilities to set all the independent variables not under immediate scrutiny at their mean values. However, we favour a different approach, termed the 'method of recycled predictions' (for reasons outlined in appendix 4). In this

approach we change the categories in the independent variables across the whole data set and then average the predictions. For example, we first assume that all the people in the data are male, and holding their other characteristics constant, we calculate the probability of each outcome and then average these. We then assume that all the people in the data are female, and again calculate predicted probabilities, holding their other characteristics constant. Again the probabilities are averaged. The difference between these two sets of average predicted probabilities reflects the difference in outcomes which can be attributed to gender, with all other characteristics held constant (StataCorp 2003, p.513).

As we would expect, the predicted probabilities (reported in appendix 4 in table 7) accord with the findings in table 1, but reading the figures is somewhat more straightforward. Someone who is male, with all other characteristics held constant, has a 38% probability of accessing VET, whereas a female (again, with all other characteristics held constant) has a 34% probability of going to VET. Thus, the effect of gender is four percentage points when it comes to VET (but seven percentage points for university), with all other characteristics held constant. Each of the other characteristics can be read in the same way. For example, Indigenous background makes no difference for VET, but a 15-percentage point difference for university. Disability has a six-percentage point difference for VET, but a ten-percentage point difference for university. Perhaps the most dramatic finding is the overwhelming impact of structural factors when it comes to university access. Those young people who went to independent schools had a predicted probability of going to university of 45%, a massive increase over the probability for young people from government schools (just 21%). While this figure of 45% is somewhat lower than the unadjusted probability (52%), it is important to keep in mind just what this is telling us. Because these comparisons are using adjusted probabilities, they are the predictions which our model makes for this outcome, with all other characteristics held constant. Thus, to learn that coming from an independent school has a large impact on university entrance invites the obvious reply: 'Yes, but surely this is because these schools have larger numbers of students whose parents are professionals or managers, and we know these kinds of family backgrounds increase the chances of going to university'. However, the adjusted probability takes account of this objection (which is one of the reasons why the actual figure drops from 52% to 45%). Because parents' occupation (as well as other factors) is included among the explanatory variables in the model, the adjusted probability of 45% is the effect of independent schooling, *net* of all other factors in the model. In other words, in itself, the kind of secondary school which a young person attends has a large impact on whether they end up going to university.

Our results show quite clearly that the patterns of educational disadvantage for entering university are much stronger than for entering VET. But it might be argued that these results should come as no surprise. Gaining access to university requires better school outcomes than is the case for gaining access to VET, and many of our explanatory variables are also associated with better school outcomes. For example, studies of 'cultural capital' lead us to expect that students with parents who are managers and professionals are likely to get better school results than students whose parents have a different occupational background. This is a reasonable line of argument, but it overlooks two important issues, which suggests that the institutional arrangements at a post-secondary level have some determinacy in their own right, and that post-school educational outcomes do not simply reflect the continuation of schooling patterns.

Firstly, the school sector itself makes an important difference. As we have just seen, after controlling for all other characteristics—including parents' occupational background—we still find a major difference between VET and university. In other words, the key structural factor examined in this modelling—school sector—shows profound differences between educational outcomes, differences which show deep patterns of educational disadvantage operating independently for VET and for university.

Secondly, the story changes over time, and this suggests that institutional change at the post-secondary level has played a role in the kinds of educational outcomes we are witnessing. By introducing an historical perspective—which we do with our second model—we can examine whether patterns of educational disadvantage have changed during the last 20 years, and whether

this has been the same for VET and for university. In essence, as we show below, some of the educational disadvantage which operated more strongly 20 years ago has moderated in the case of VET, but it has persisted—or even increased—in the case of university. We now turn to the results of our second model.

The historical model

To pursue our historical comparison, we compare the young people in the first model (a group who were aged under 25 in 2001) with a second group of people (those aged between 35 and 40 in 2001). We make the reasonable assumption that the vast majority of this second population faced the prospects of VET, university or no education at some stage in their youth, generally between the ages of 15 and 19. This allows us to further assume that, by looking at this population of respondents, we can examine how these prospects operated about 20 years ago (that is, in the late 1970s and early 1980s). From a modelling point of view, our research strategy follows a particular methodology. For technical reasons, we cannot simply compare two different models based on each population; that is, we cannot simply fit one model to the young population and one to the middle-aged and then compare their coefficients. Rather, the appropriate way to model such a comparison is to pool the data and use interaction terms based on a variable which reflects each population of interest. Because we have used each population to proxy the period today (youth) and that which prevailed 20 years ago (middle-aged), we have called this variable *now*. In practice, we interpret our results such that if an interaction term (such as *now* by *male*) is statistically significant, then we can conclude that the effect of gender has changed during the last 20 years. On the other hand, if the term is not statistically significant, then we can conclude that the relevant effect has not changed.

The results from this modelling are shown in appendix 4 and are rather complex. The key findings, however, are straightforward. From the perspective of educational disadvantage, the situation has improved markedly for VET, but much less so for universities. Indeed, in some respects, the situation with regard to universities has worsened. Looking first at VET, we find:

- ✧ *Gender has changed over time when it comes to VET experiences* (vis-a-vis no education). Young men no longer dominate access to VET as was the case 20 years ago. In the late 1970s and early 1980s, males had twice the odds of females of going to VET (compared with no educational outcome). Today, this advantage has disappeared. Of course, this does not mean that issues of gender disadvantage no longer apply to young women in VET. Rather, as we will show later, the problems lie in other areas (such as the courses undertaken) rather than in matters of access.
- ✧ *Occupational background has also changed over time for VET outcomes*. In the late 1970s and early 1980s, young people who had a parent who was a tradesperson, and those who had a parent with professional or managerial occupation, had one-and-a-half times the odds of getting into VET, compared with a person who did not have such parents. This ‘occupational advantage’ has disappeared, and the parental occupation of young people no longer plays a role in access to VET.

Turning now to universities, we find:

- ✧ Children from single-parent families are less likely to enter university today, than they were 20 years ago.
- ✧ Where once second-generation non-English speaking background migrants were more likely to enter university (a common finding in the literature concerning second-generation migrants), this is no longer the case.
- ✧ Children from a family where the father has been unemployed at some stage are also less likely to enter university today, compared with the situation of 20 years ago, when this factor had no discernable impact.

- ◇ Twenty years ago young people who had a professional or managerial parent had very high odds of going to university; this has weakened during the last two decades. However, this ‘occupational advantage’ has not disappeared, as it has for VET, but remains a fundamental feature of university access.

Conclusion to modelling results

While keeping in mind our caveats (such as our assumption that the middle-aged population provides a window into the past), our modelling of the data shows clearly that the patterns of educational disadvantage operate quite differently for VET, compared with universities. Moreover, the situation appears to have improved for VET, but much less so for universities. This broad conclusion must, however, be tempered by a number of reservations.

While the data themselves are of a very high standard, our modelling strategies and the size of our populations of interest require us to work with aggregated categories. The non-English speaking background people category, for example, is a very broad-brush category, one which ignores important regional differences, and one which has changed over time (as the migration program has evolved). Similarly, the Catholic school sector is quite diverse, including schools which approximate the wealthy independent schools, as well as schools which are more resource-deficient than even the poorest government schools. Even where aggregation is not a problem—such as gender—the categories themselves can hide as much as they reveal. For example, the experiences of working-class women are profoundly different from those of middle-class women; as are the experiences of women from non-English speaking backgrounds compared with women born in Australia. In essence, these are the problems of homogenised categories and aggregation that were discussed earlier, and which bedevil most types of statistical modelling and provide one of the main rationales for complementing statistical findings with qualitative case studies.

We have an additional problem which arises from the functional form of our model (multinomial logistical regression). This approach requires just a few broad categories for its dependent variable, compared with the fine gradations possible with linear regression (where the dependent variable might be something like income or educational scores). As a consequence, we find ourselves lumping together some quite diverse respondents within each of the three broad categories (VET, university and no education). This raises the important question: is it really the case that those respondents who reported a ‘VET experience’ have actually achieved a similar outcome? Some may have undertaken a full four-year apprenticeship, while others may have only undertaken a semester-long certificate level I course. To ensure that this diversity is acknowledged, and to deal with the other shortcomings in aggregation, we supplement our modelling results with some descriptive statistics which work with a finer level of detail. These have their own shortcomings (such as small sample counts and an absence of statistical controls), but they are essential in playing a complementary role to the multivariate results. In the next section we present the insights offered by a range of descriptive statistics.

Descriptive statistics

A closer look at gender and educational outcomes

The results of our modelling are encouraging when it comes to gender equity. Clearly, some of the gender-related aspects of educational disadvantages have moderated during the last 20 years, with more young women than men entering university and with almost the same results within VET. However, this does not mean that gender inequality within post-secondary education has evaporated. Rather, the issues are more complex than simple counts of enrolments or completions. In particular, the kinds of courses undertaken may still reflect issues of disadvantage: if these are lower-level courses, then there is less likelihood that they will lead to stable employment outcomes after completing VET studies. Looking at table 2, we do indeed find that female disadvantage is still

evident within VET. Some 95% of young women who completed a VET qualification had been enrolled in non-trades courses, such as certificate courses. By contrast, 84% of young men were in the non-trades stream. Over the last 20 years, the shift from the trades to the non-trades stream has been dramatic among men, dropping from just under a half (44%) to less than one-fifth (16%). Of course, women have also shared in this decline, but the magnitude of the fall has been far less, a drop from 8% to 5%. It should be noted, however, that, while individuals in the trades stream have declined as a proportion of total training, actual numbers in the trades stream have remained stable across the years. Thus the historical imbalance between men and women within VET has not disappeared, even though access to VET has improved considerably for women.

Table 2: Course enrolments by gender for those with VET qualifications (%)

	20 years ago			Today		
	Male %	Female %	All persons %	Male %	Female %	All persons %
Trades courses	44	8	30	16	5	7
Non-trades courses	56	91	70	84	95	93
Total	100	100	100	100	100	100

Note: Population = Both youth sub-population (persons aged under 25, excluding those still at school) for 'today' and middle-aged sub-population (persons aged 35 to 45, excluding those who migrated after 15) for '20 years ago'.
Source: Household, Income and Labour Dynamics in Australia Survey data

Delving deeper into non-English speaking background

We mentioned earlier that the broad category of non-English speaking background is also too abstract and homogeneous. In our modelling we distinguished between first-generation non-English speaking background migrants (those born overseas) and second-generation migrants (born in Australia of non-English speaking background parents born overseas). This was a useful distinction and allowed us to discern a pattern among second-generation migrants who fared well in entering university in the late 1970s and early 1980s. In this section, we briefly look more closely at these patterns and also examine the geographical origin of some of these young people.

Table 3 shows that second-generation non-English speaking background migrants fared well at university 20 years ago, but this pattern is no longer evident today. It is now first-generation non-English speaking background migrants who fare above average in terms of university. A closer look at the data (not shown) suggests that the young people 20 years ago who fared well were the children of migrants who had predominantly come from Europe, particularly western, northern or eastern Europe (but not southern Europe).

Turning to the issue of VET access, table 3 suggests that second-generation non-English speaking background migrants fared no better than average 20 years ago, whereas today, they have fared better than average. Again looking at data on their source countries shows that these were quite a diverse group of young people, but with larger groupings drawn from those with parents who were also born in Europe (mainly western and northern Europe). The major shift in the pattern of migration to Australia—towards Asian countries from the 1980s onwards—has not yet surfaced in our data on educational outcomes. Certainly, first-generation Asian migrants show higher-than-average outcomes when it comes to both university and VET (and they contribute to the results in this table). But second-generation Asian migrants remain a very small presence in both university and VET because they are still predominantly in the schooling system (because of their younger age).

Table 3: Educational outcomes by NESB status, 20 years ago and today (%)

	20 years ago				Today			
	VET	Uni	None	Total	VET	Uni	None	Total
First-generation NESB migrant	44	24	33	100	30	39	30	100
Second-generation NESB migrant	37	32	31	100	43	21	36	100
Not NESB	38	25	37	100	36	27	37	100
All persons	38	26	36	100	36	28	36	100

Notes: Population = Both youth sub-population (persons aged under 25, excluding those still at school) for 'today' and middle-aged sub-population (persons aged 35 to 45, excluding those who migrated after 15) for '20 years ago'. NESB = non-English speaking background.

Source: Household Income and Labour Dynamics in Australia Survey data

Moving targets: School sector and occupational change

There are always additional layers of complexity in any analysis which grapples with historical change, and our study is no different. In our earlier modelling we saw that parents' occupation and the school sector were statistically significant for university outcomes, but not for VET. Moreover, the effect of school sector was particularly strong as far as university was concerned. A moment's reflection, however, reveals that these have not been static categories over this time period. A steady flow away from government schools during the 1980s and 1990s has seen the composition of independent schools change during the last 20 years. At the same time, important occupational changes have also been underway, and professionals have now grown to become the largest occupational group in the labour market, while tradespersons have seen their share of jobs decline (Watson et. al 2003, p.56).

This means that historical comparisons must be tempered by the recognition that we are dealing with a moving target. That is, the composition of each of these categories has shifted over time, and this is not evident in the data. For example, looking at table 4, we find that there has been a very large drop for universities in the government school background over the last 20 years (from 62% to 52%) and a modest drop for VET (from 80% to 75%). But these figures do not reflect the changing composition of the non-government sector. We know, from other research, that the independent schools now include a number of smaller non-wealthy religious schools. In making this observation, we do not want to suggest that the structural factors in the modelling (school sector) are not crucial aspects of educational disadvantage in contemporary Australia. Rather, the significance of compositional change is that it moderates the strength of such effects and this needs to be acknowledged, even if it can not be easily quantified.

Table 4: School sector by educational outcome, 20 years ago and today (%)

	20 years ago			Today		
	VET	Uni	None	VET	Uni	None
Government	80	62	83	75	52	79
Catholic	14	22	11	15	23	13
Independent	6	16	6	10	25	8
Total	100	100	100	100	100	100

Note: Population = Both youth sub-population (persons aged under 25, excluding those still at school) for 'today' and middle-aged sub-population (persons aged 35 to 45, excluding those who migrated after 15) for '20 years ago'.

Source: Household Income and Labour Dynamics in Australia Survey data

Research findings: Qualitative research

In this chapter the findings from these case studies (the full case study reports can be found at appendices 1, 2 and 3) are briefly summarised, findings which highlight the importance of examining barriers to VET access and equity from both the *structural barriers* and *individual characteristics* philosophies (the ‘convergence theme’ we discussed earlier). This is particularly important when it comes to developing and implementing policy initiatives aimed to address VET participation. These case studies show that the detailed knowledge and understanding which practitioners held concerning the specific characteristics of their clients was fundamental to the strategies they developed for confronting structural barriers. This included considerable empathy with these clients, and a deep awareness of the complex life experiences they had undergone. This level of knowledge and understanding was instrumental in the ability of their organisations to develop programs which fully engaged their clients.

The issues faced by individuals in these community groups—and not just those related to VET access—defeat attempts at neat categorisation. Indeed, even approaching patterns of disadvantage with the categories of demographic, family and structural factors—as we do in our modelling—is inadequate for capturing the complex interplay of multiple and cumulative disadvantage. This was most apparent in the program aimed at disconnected youth (case study 2) in which all of the following factors were interwoven:

- ✧ age
- ✧ homelessness
- ✧ a history of adverse educational experiences
- ✧ family breakdown
- ✧ behavioural, health and legal problems
- ✧ low levels of literacy and numeracy
- ✧ drug and/or alcohol dependency
- ✧ institutional inflexibility around learning processes and arrangements.

Any attempt to address just one of these, or even a few of them, while ignoring the others would have been pointless. The relationship between factors contributing to disadvantage in VET are so interconnected that a true understanding of the problem cannot be developed without acknowledging the multiple and cumulative disadvantages which invariably surface when VET practitioners face specific groups of individuals, rather than facing ‘abstract’ categories. It follows from this, that approaches to addressing access and equity in VET that focus on the abstract categories are unlikely to produce good outcomes on the ground.

Indeed, these case studies reinforce the axiom that it is the way in which individual characteristics and structural barriers interact which provides the best insights into how barriers actually operate in practice. This is evident in the experience of Vietnamese outworkers (case study 1) where the history of adverse experiences for these women with the Vietnamese Government had been generalised to all governments and government institutions, and therefore acted as a major barrier when it came to their approaching government institutions in Australia, institutions like TAFE. At the same time, however, this barrier was intrinsically linked to the social isolation they faced as

migrants from non-English speaking backgrounds in Australia and the traditional cultural resistance to their working outside the home. The idea of travelling to attend formal training classes, kilometres from the area in which they lived, was clearly quite alien, if not fearful, to many of these women. The barriers to attending mainstream formal classes, in turn, contributed to their low levels of English language and literacy skills.

This compounding of disadvantage means that women like these face almost insurmountable problems in gaining access to VET. Such problems cannot be effectively addressed by shifting the onus on to the clients themselves to find pathways into VET. Outreach strategies which are community-based, which seek out specific target groups, and which acknowledge these complex patterns of disadvantage, appear to have the best chance of increasing VET access for groups like these.

There is no single solution to confronting problems of VET access. As all the case studies show, solutions will hinge on the interplay between individual characteristics and structural barriers. In a similar way, these case studies also demonstrate that VET equity goals must seek a balance between social and economic outcomes. Each of the case studies showed that the various programs needed to overcome social isolation, simply in order to begin addressing the skill development needs of the clients. This does not mean that social goals are all that matter when it comes to equity issues in VET, and that economic goals are to be reserved for 'mainstream' VET participants. Such a perspective would be both condescending and ill-founded. Rather, what we are arguing for is the importance of getting the balance right between economic and social outcomes on a program-by-program basis. And getting it right will always depend on the specific characteristics of the client group.

As the Claymore Animation Project (case study 3) showed, economic outcomes were not even a consideration in the development of this tailored TAFE course. For these women, the only issue of importance was the achievement of social outcomes which assisted in building a sense of community in a suburb which had experienced multiple social problems. On the other hand, for the Vietnamese outworkers (case study 1), it was economic outcomes—in terms of improved labour market options—that mattered most to these women, although along the way the social goals of breaking down social isolation also became a priority. As for the disconnected youth, social outcomes—particularly feeling part of a community and gaining self-confidence through educational qualifications—was of the utmost importance. But the balance here also favoured some economic outcomes, because, for the majority of these young people, their long-term goal included stable and secure employment.

All of these case studies demonstrate that, for many disadvantaged groups, *social outcomes are important stepping stones to the achievement of economic outcomes*. A crucial factor in determining where the balance should lie between economic and social outcomes is to be found in the nature of their disadvantage, particularly the extent to which it is multiple and compounded.

This 'stepping stone' insight is evident in the case studies in the important finding that working with the shared experiences of the participants was fundamental to the success of community-based initiatives. This is because this aspect was of such importance to the individuals involved. In other words, it is not just social *outcomes* which are important, but the fostering of social *relationships* during VET participation which is critical to the success of programs. For example, the young people who participated in the disconnected youth program (case study 2) all came from similar backgrounds and were experiencing similar hardships in everyday life. This pattern of shared experience enhanced empathy among the group and thereby minimalised the stigma which might normally attach to issues such as drug and alcohol dependency. In fact, the extent of shared experience normalised the classroom situation. For many of the participants, their experience with mainstream education had been one where they were not 'normal'—they were not like the other kids—and this was often the driving factor disconnecting them from the education system, particularly for those who still lived at home.

This phenomenon of shared experiences was particularly important in shaping the responses which practitioners developed for dealing with the barriers which specific client groups faced. Among the community-based practitioners in particular, the programs which were developed were highly flexible and geared to the needs of the specific clients. These clients did not have to fit into a pre-existing mould, rather the mould was made to fit them. By way of contrast, conventional VET programs did not confront the phenomenon of shared experiences in the same way. As one TAFE teacher explained, '... we may have one person who's homeless, or one person who *used* to have a drug problem, but we *never* have a whole class with these problems'.

Finally, the hallmark of all the community-based initiatives discussed in these case studies is the idea of ownership. Because the programs and initiatives all begin with the concrete reality of specific groups, they evolve in ways which remain close to the concerns of the participants. Not only is the provision of educational courses tailored to their specific needs, but also the direction in which the overall program heads is often under their control. As a woman involved in the Claymore Animation Program explained about the staff running the program, '... they didn't *tell* us what to do, they didn't say "this is what Claymore needs", they *asked* us what *we* wanted to do'. In essence, these participants come to own their activities, whether this be the learning process, or confronting community problems. This contrasts sharply with the alienating experience of much formal post-school education, situations where students carry out tasks in order to please others, a process characterised some 30 years ago by Paulo Freire as the 'banking concept' of education (Freire 1973).

Conclusions

The research findings discussed in this report lead to some important conclusions. These concern substantive findings, methodological insights and policy implications. The substantive findings suggest that access and equity has improved within the VET system over the last 20 years, and that in this respect, there are grounds for optimism. Indeed, the record for VET in this context is superior to that of the university sector. This optimism needs to be tempered, however, by the recognition of the limitations in our statistical results, limitations which highlighted the importance of employing detailed qualitative case studies.

Although these case studies support a general optimism about the prospects for equity in VET, they also suggest a certain degree of caution. On the one hand, the report suggests that community-based initiatives can work very successfully within the VET framework, provided certain protocols or procedural principles are maintained. On the other hand, these case studies also raise concerns about the extent to which resourcing levels are adequate enough to fully realise the potential of these initiatives. For example, both the Claymore Animation Program and the Salvation Army Oasis Youth Network and Waverly Action for Youth Services Flexible Learning—FLOW—pilot program showed how important social outcomes were achieved because the individuals involved had a voice in determining their learning goals and acquired ‘ownership’ of their learning processes. In terms of the current terminology, these learners engaged in pedagogical and social practices which were ‘empowering’. The resourcing issue, however, was also evident in these case studies, particularly the Behind the Label program. Although many participants expressed interest in further study, study which might lead to better labour market outcomes, the extent to which this occurred was limited. At the same time, considerable funds were made available for this program, support which was available because of the parties involved and because of its economic importance. We would not expect to see a similar degree of resources made available to other programs, particularly those where social goals were more to the fore.

In terms of methodology, this report has also found that the complementarity of quantitative and qualitative methods has been reaffirmed. The statistical modelling did indeed highlight some key patterns in VET participation and suggested how these might be related to access and equity issues. The real insights, however, were only possible because of detailed qualitative research in the field. This type of research unearthed important social processes which were not accessible through statistical modelling. It also provided us with our key conceptual insight about how cumulative disadvantage operates on the ground. In this respect, the use of grounded research in this study reinforced our reading of the literature, which had led us to reject the dualism between the *individual characteristics* and *structural barriers* philosophies. The case studies showed how a philosophy based solely on abstract client group categories makes little sense when one moves into real-world settings. Statistical modelling, despite its strengths, is obliged to operate at the level of abstract and homogeneous categories. Finally, our attempt to find a philosophical convergence between the individual characteristics approach and the structural barriers approach was also facilitated by grounded research—by detailed insights into how specific groups encountered particular structural barriers because of the cumulative disadvantages they endured.

From a policy perspective we do not wish to be prescriptive. Clearly, community-based VET initiatives deserve strong support because these approaches meet many of the requirements for good learning practices, particularly involvement and ownership by the learners themselves. However, it is also the case that more institutionalised models of VET can be equally successful. What really

matters is the appropriateness of VET provision for the target groups. If these groups can be defined in detailed and specific ways—rather than as broad abstractions—then the model of VET provision which is developed has a better chance of working on the ground.

In any policy discussion, questions of resourcing are central. Dealing with problems of cumulative disadvantage can be lengthy and costly. Years of investment may be needed to re-engage marginalised groups and encourage their learning. Some things which are not economically viable in the short term and which only appear to prioritise social outcomes may be economically justified in the long run. This is particularly the case for groups like homeless youth or prisoners. Similarly, there are other groups whose access to institutional avenues for VET is very limited. Only community-based initiatives—which emphasise social outcomes—stand much chance of engaging these groups. The women in the Claymore public housing estate come to mind. For both these examples, a strong case can be made for resourcing learning initiatives whose real achievements lie somewhere in a more distant future.

In conclusion we would argue that good access and equity policies for VET can be formulated along certain lines, without becoming prescriptive as far as targeting or priorities are concerned. This formulation should entail:

- ✧ a *starting point*: specific groups of individuals with multiple disadvantages
- ✧ a *process*: ownership of the learning by the learners
- ✧ *resourcing levels*: levels of resources which recognise the value of long-term outcomes and which are appropriate to the needs of the specific target group
- ✧ *goals*: recognition of the need to balance social and economic goals.

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Support document details

Additional information relating to this research is available in *Who's missing out? Access and equity in vocational education and training—Support document*. It can be accessed from NCVET's website <<http://www.ncver.edu.au>>. The document contains:

- ✧ Appendix 1: Behind the label
- ✧ Appendix 2: FLOW
- ✧ Appendix 3: Animation program
- ✧ Appendix 4: Statistical details



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