

# **EQUITY AND LOCAL PARTICIPATION IN VET: SOME PRELIMINARY FINDINGS IN SYDNEY POSTCODES**

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## **ABSTRACT**

Empirical findings are presented from a current study of patterns of local participation in VET in greater Sydney using national statistics and census mapping software. The study is predicated on the assumption that the 'community' dimension of equity in VET has been neglected by the current emphasis on the representation of 'target equity groups' with little regard for the socio-economic distribution of disadvantage. The article reviews three research approaches derived to local equity analysis before presenting data showing participation rates in urban Sydney postcodes. The case is argued for national equity to reconsider the role of local provider equity strategies.

This working paper will briefly review the reasons for giving more attention to the local dimension of equity research, describe some possible approaches and present some preliminary findings on TAFE participation rates in greater Sydney postcodes using state statistics and census mapping software.

Here I do not give in full a justification for local analysis, or provide an extensive discussion of the rationale and methodology for local participation studies since I have attempted to do this in a forthcoming article (McIntyre forthcoming).

While I will refer to the 'target equity groups' of current policy, the paper seeks to question the way such categories have been employed to understand disadvantage and access and equity in VET. The 'target equity groups' include Aboriginal & Torres Strait Islander peoples, people of NESB, disabled, rural and certain groups of women who are typically unemployed or not in the workforce, or over-represented in low skilled work and have less opportunities for training on-the-job (ANTA 1996).

## **The need for local equity analysis**

There is a need for research to turn its attention to the 'community' dimension of equity policy in VET in Australia, in the face of the trend for policy to abandon 'supply side' solutions. There is a need to monitor how equity is being achieved on the ground at the provider level.

There are several reasons for urging such research. One is the current emphasis of equity policy which appears to have downgraded the central role that TAFE providers were given in achieving equity. Current ANTA policy emphasises the need to look beyond barriers to participation in VET the development of strategies which will improve the outcomes of participation of 'target equity groups'. The emphasis is on increasing equity outcomes by encouraging industry to link training and employment and by 'supporting individuals from under-represented groups in training and employment' within the existing framework rather than through funding of specific access and equity programs offered by training providers (ANTA 1996).

This policy approach highlights participation and its outcomes. The particular barriers faced by disadvantaged groups are identified and strategies appropriate to these groups developed. There is an emphasis on defining and assessing progress on outcomes of participation and it is recognised that access and equity has multiple components, including the design of relevant

training, elements of social and cultural learning, employability and life skills, and language, literacy and numeracy skills, and student support measures (ANTA 1996).

However, its key notion of the 'representation' of 'target equity groups' tends to be employed in ways which deny the harsher realities of social and economic inequality and educational disadvantage. It has been necessary for VET equity researchers to try and reassert the compound nature of social and economic disadvantage, meaning, the statistical association of low educational levels, poor employment, poverty, isolation and cultural group membership, where individuals have 'multiple memberships' of equity groups (Golding & Volkoff 1997; Volkoff & Golding 1998, McIntyre 1998).

The shift to an industry and employment focus also means that the role of providers is no longer so central. While it is right to emphasise that employment is now key to access to training on-the-job, emphasis is no longer on locally responsive providers and their equity strategies. Yet social and economic and geographic location intersect to compound inequalities in education. The fact remains that social and economic disadvantage is concentrated in particular localities, and this is not to be understood as referring simply to people living in remote and rural localities.

Thus I to argue that we need to explore in what ways *area of residence* is influencing VET participation and its outcomes. Where members of the 'target equity groups' live will influence their chances of participating in employment, employment and education and training. It needs to be asked to what extent there is an unequal distribution of 'opportunities' to participate in VET that is mirrored by area of residence, in both urban and rural localities. The social facts of unequal distribution of income, employment are well-known and often publicised (eg Gregory's studies of increasing income gaps between poor and rich neighbourhoods). There appear as yet to be have no such studies of VET participation.

It can be argued that the effectiveness of employment-based strategies is likely to be undermined if they do not take into account the characteristics of labour markets in different localities and regions. The very capacity of TAFE to implement industry and employment-based strategies is unequally distributed, since some regions are better placed to implement such strategies, and the burden of achieving 'equity outcomes' is not evenly shared across labour markets, local employer networks, TAFE institutes or government agencies (McIntyre, forthcoming).

It is also important to ask questions about advantaged groups and their use of VET, in the context of equity research. To what extent do relatively advantaged (employed and educated) individuals consume the resources allocated to a locality or region? It would be a serious charge from an equity point of view that TAFE participants in 'disadvantaged' areas were relatively 'advantaged' individuals. Thus in areas with high indigenous population, it is crucial to know to what extent are courses and facilities monopolised by non-Aboriginal people living in the area? In areas of high unemployment, to what extent does TAFE cater mainly to employed people? Such questions illustrate what is meant by the distributional justice assumptions of local equity analysis.

Finally, it is important to reassert the need for a provider perspectives on equity in VET, and to ask what incentives national policy gives to TAFE institutes to develop local strategies to address localised disadvantage. This perspective requires a body of evidence about patterns of participation at the local level. Again, researchers ought not to be deterred from continuing to ask 'supply side' questions of policy and provision, from questioning the distribution of public resources.

## Approaches to local equity analysis

Local analysis studies the characteristics of participants in who participants live or work in a certain area. The characteristics of VET participants living in a postcode can be compared with the characteristics of that locality in general and with the profile of VET participants in the region or state using a 'profiling' methodology. Thus the 'representation' equity groups in particular areas may be explored using information about VET participants from AVETMISS and Census mapping software such as Cdata96 (ABS 1998b). Here client home postcode is a key item linking the datasets.

Elsewhere I describe a conceptual model of VET participation which is a holistic or ecological in character (McIntyre forthcoming, McIntyre Brown & Ferrier 1996). This model assumes that who participates is a complex product of provider, area and clientele factors. Local equity analysis gives particular attention to the nature of the locality and the 'catchment' of a provider, where a range of demographic, social and economic factors, including the characteristics of local clienteles, have an impact on what is demanded and what is provided (McIntyre et al 1996).

Local participation patterns reflect the demands of clienteles for types of courses, where some clienteles make more demands than others on providers, and have greater inclination and capacity to take certain courses, in terms of the personal and financial resources required to do so. Demand is affected not only by the financial costs to participants but cultural costs - whether what is provided is culturally accessible and amenable to groups residing in an area. Demand is known to be depressed by lower levels of educational qualification, levels of employment and labour force participation and lower occupational differences. Employment itself is arguably the single most important factor now giving access to adult education and training (McIntyre & Crombie 1996, ABS 1998a).

Providers are influenced, it can be argued by the demands of clienteles for certain types of courses. They take resource allocation decisions in the light of policies and the social and economic character of a locality, and their assumptions about the kind of participants they expect and want in programs. Such tendencies are amplified in a user-pays system and a competitive training market. From the perspective of equity policy, it is exactly the point that providers resist targeting disadvantaged clienteles who pose 'difficulties' for normal practice and require additional (due to lack of personal and financial resources). Hence, targeting strategies often assume that providers need to be persuaded to provide for under-represented groups by targeting resourcing to their increased participation, and even then they may be reluctant (Lundberg and Cleary 1995).

The conceptual model suggests three possible approaches to local equity analysis which are described in detail elsewhere (McIntyre forthcoming):

1. *Area participation analysis* compares a large number of areas in terms of their rate of participation for a given year and in terms of the profile of their VET participants, without regard to where participants are attending. Home postcode is used to calculate various participation rates (the number of students enrolled in VET in a given year expressed as a proportion of the population aged over 15). Then differences in among high and low participation postcodes can be examined in terms of social and economic indicators known to be associated with adult participation, such as higher levels of education, occupation and income. From an equity perspective, the question is what participation rates disadvantaged areas have, and what is the profile of their VET participants. To what extent are 'equity groups' who are strongly represented in the area also represented in the VET profile?
2. *Catchment analysis* This examines participation from the standpoint of particular

their nominal catchment. From an equity perspective, the interest is whether providers in 'disadvantaged areas' are delivering programs in those postcodes and to what extent they are targeting more 'advantaged' areas. An important function of catchment analysis is establishing the extent to which participation is local rather than diffused (for some ACE examples, see McIntyre Brown & Ferrier 1996).

3. *Provider equity analysis.* A third kind of analysis builds on the results of catchment and local participation studies to ask what kind of participants are represented in the enrolments of a provider based in a locality or region. The key equity question is to what extent a provider is targeting the 'equity groups' which are strongly represented in the nominal catchment, as reflected in the provider's participant profile.

A study of 1996 VET participation in greater Sydney postcodes used the first of these approaches. It is not possible here to go into detail about the methodology employed, but some general features need comment.

Various *participation rates* are calculated from NSW TAFE client statistics, including gross TAFE participation (the proportion of the area population aged over 15 participating in VET) and several specific indices: Stream 2 participation, vocational participation, employed participation, and low schooling participation. Indices can also be calculated youth participation and for some target equity groups.

Postcodes are grouped in terms of their participation rates (by sextile) and compared in terms of social indicators generated from Census data, in order to 'profile' or represent the characteristics of people living in an area. The focus in the Sydney postcode study is on education, employment and income indicators, as distinct from specific socio-cultural disadvantage such as the proportion of Aboriginal or Torres Strait Islanders or non-English speaking people living in a location.

*Home postcode* of the TAFE client is the key piece of information provided by national VET statistics (AVETMISS) which can be linked to 1996 Census data. Postcode 'locates' the client in terms of the socio-economic profile of the area and the pattern of VET participation in the area of residence. In urban areas, postcode is a small enough unit to capture variability in such characteristics, whereas these variations tend to be smoothed out in larger units such as local government area.

Local equity analysis makes working assumptions for testing equity in VET on the basis that if a postcode has large proportions of people with low educational levels, no qualifications, low labour force participation, high unemployment or low incomes, then it is reasonable to expect that the profile of VET participants from these areas ought to 'represent' such populations if VET providers are responding to disadvantage of this kind.

There are various conceptual and methodological issues surrounding the nature of social indicators, the relevance of the ABS SEIFA disadvantage indicators (social indicators for areas), the quality of TAFE statistics and so on .

### **Findings: TAFE participation in Sydney**

The study of Sydney postcodes is limited to TAFE participation in its first phase, though an earlier study (McIntyre et al 1996) examined ACE participation in NSW in a similar methodology. The study links TAFE client data for 1996 to Cdata96 which marries census databases to GIS mapping software. The reference year was the census year 1996.

The aim was to compare Sydney postcodes in terms of various rates of TAFE participation rate and to examine differences among the high and low participation postcodes. The primary

postcodes was related to their employment and educational levels. A secondary question is to what extent particular equity groups known to be concentrated in a given postcode are represented among TAFE participants residing in that postcode. No assumptions are made about where these residents attend TAFE.

The main findings of the Sydney study are:

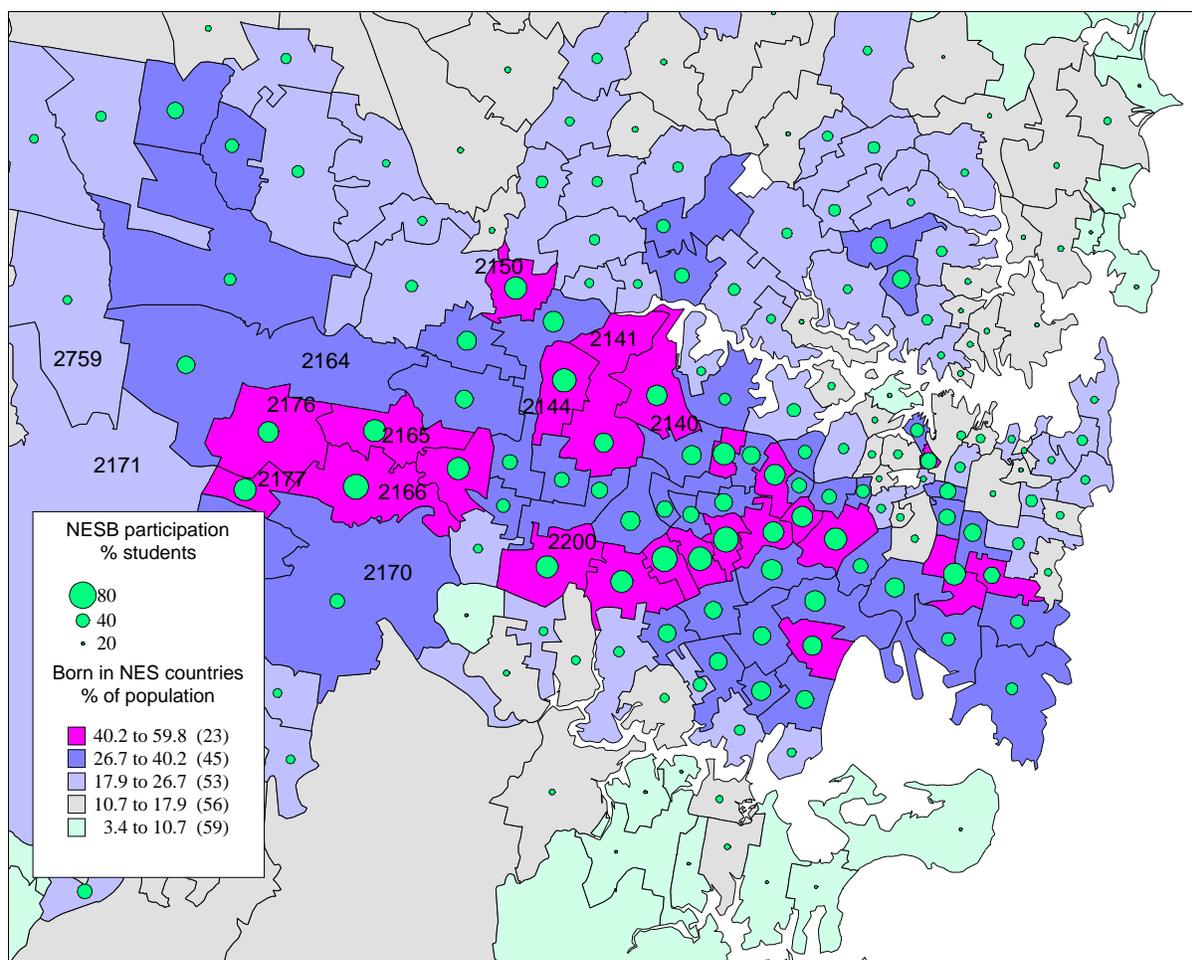
1. TAFE participation in Sydney is highest in the outer Sydney postcodes of outer western and south western suburbs, and lowest in the more affluent inner city suburbs (which have higher university participation). Postcode participation rates of various kinds correlate strongly with socio-economic indicators of education, occupation and income.
2. The high participation postcodes in outer south-western and western Sydney include many areas regarded of relative disadvantage, in conventional terms, as indicated by relatively lower educational levels (post-school qualification held), 'blue collar' occupational profiles (eg higher proportions ASCO occupational major groups 7,8 and 9) and lower household incomes.
3. What is true for general TAFE participation in a postcode ( all TAFE clients as a proportion of the postcode population aged 15 and over) is reflected in other more specific rates of participation including: the vocational rate (stream 3000 and 4000 clients); the employed client rate, the unemployed client rate and the 'low schooling' rate. These more specific rates indicate to what extent relatively socio-economically disadvantaged (unemployed, those with low schooling levels) are participating.
4. Those postcodes which are high on social indicators of non-English speaking background have in general, very high NESB TAFE participation rates. Postcodes with relatively large populations of indigenous people also have high ATSI participation rates.

Figure 1 provides an example of the mapping of TAFE participation data on to social maps. Inner western Sydney postcodes have high concentrations of people born overseas in NES countries. These postcodes also have high rates of participation by NESB TAFE students compared to other postcodes. This suggests that local populations of NES residents were enrolling in TAFE in significant numbers and perhaps, that TAFE is meeting the needs of many NESB client groups. To what extent this is occurring, and to what extent occurring locally, and whether the outcome of particular strategies for these groups, are among the questions raised by this snapshot of participation.

### **Figure 1**

NESB TAFE participation by students of non-English speaking background living in inner Sydney, 1996

Source: Cdata96 and NSW TAFE statistics)



The following tables provide further details of the findings of the study that may be of interest to VET researchers. Table 1 shows Sydney postcodes by sextile, with mean values for several rates of participation including rates for employed and unemployed students. The highest participation postcodes also have the highest proportions of unemployed students enrolled and rather lower participation in nominally vocational courses (streams 3000 and above).

Table 2 provides social indicators for the same sextiles, which suggest that the highest participation rates occur in the most disadvantaged postcodes as reflected in these indicators, while Table 3 summarises some correlation coefficients among rates and indicators. This data is of course broad-brush and represents work 'in-progress' rather than a final report of the study.

**Table 1. Participation rates\* of Sydney postcodes, 1996, sextile means (n=235)**

Sextile	GrossPart	VocPart	Employed	UnEmpl	Year 10	Voc as %
1	9.3	7.0	47.9	21.4	13.2	75.1
2	7.8	6.1	54.2	19.3	12.2	78.1
3	7.0	5.7	58.4	17.7	11.0	81.6
4	6.4	5.3	60.8	16.0	10.8	82.3
5	5.5	4.5	58.0	16.9	11.4	81.1
6	4.1	3.4	57.4	15.5	10.6	81.2

\* Definitions: GrossPart, TAFE clients in all streams as a proportion of the postcode's enumerated population aged 15 or over; VocPart, TAFE clients in streams 3000 and 4000 as a proportion of the same population; Employ, Proportion of TAFE clients who are employed part time or full time at time of enrolment; UnEmpl, proportion of clients unemployed at

proportion of clients who stated they have prior schooling of Year 10 or less. VocProp, proportion of clients in Streams 3000 and 4000 as proportion of all clients. Note that enrolments in Stream 1000 while included are very small in total.

**Table 2. Some social indicators, Sydney postcodes by TAFE participation rate, sextile means (n=235)**

Sextile	HiQual	LoQual	HHI50	LabFor	UnEmploy	Occu123	Occu789
1	17.3	14.3	13.4	61.6	9.2	33.0	27.7
2	17.2	14.0	15.1	60.6	8.3	36.7	26.8
3	19.0	14.9	16.0	63.1	7.2	37.6	24.2
4	21.1	14.4	19.8	63.2	6.1	39.8	21.7
5	22.5	12.8	20.2	61.8	6.4	42.0	21.8
6	33.8	10.3	31.5	63.1	4.3	57.1	13.2

**Table 3. Correlations of TAFE participation rates and socio-economic indicators\***

	Education & Training				
Participation:	HiQual	LoQual	AllQual	Attd TAFE	Attd All
General (all clients)	-0.5	0.3	-0.4	0.7	-0.1
Vocational streams	-0.4	0.5	-0.3	0.6	-0.1
Employed clients	0.2	0.3	0.3	-0.1	-0.1
Clients NILF	-0.1	-0.5	-0.3	0.2	0.2
Clients Year 10	-0.7	0.6	-0.5	0.2	-0.5
	Occupation and Labour Force				
	Occu123	Occu456	Occu789	LaForPart	Unemp
General (all clients)	-0.5	0.4	0.5	-0.1	0.3
Vocational streams	-0.5	0.5	0.4	0.1	0.2
Employed clients	0.2	-0.1	-0.3	0.3	-0.4
Clients NILF	-0.1	0.0	0.2	-0.5	0.4
Clients Year 10	-0.6	0.6	0.5	0.1	0.2
	Household Income & housing				
	HHInc<20	HHI>50	OwnBuy	RentDwell	HighMort
General (all clients)	0.2	-0.5	0.1	-0.1	
Vocational streams	0.1	-0.5	0.2	-0.2	
Employed clients	-0.3	0.3	0.2	-0.2	
Clients NILF	0.2	-0.2	-0.2	0.2	
Clients Year 10	0.1	-0.6	0.3	-0.3	

\* Definitions of indicators: *Education & Training*. Indicators refer to the proportion of enumerated population aged 15 or over. HiQual, the proportion (%) holding an associate diploma or bachelor degree or above; LoQual, holding a skilled vocational or basic vocational qualification; AllQual, the proportion holding any post-school qualification; AttenTAFE, proportion attending TAFE at the time of the Census; Atten All, proportion attending TAFE university or other institution. *Occupation and Labour Force*. Occu123, proportion of employed persons in first three ASCO major occupational groups (including professionals, manager and associate professionals); Occu345, proportion of employed persons in major

Occu789, proportion of employed people in ASCO major groups 78 and 9 (intermediate production workers, labourers). LaForPart, labour force participation rate, the proportion of population aged 15 or over employed or seeking work in Census week; UnEmpRate, unemployment rate. *Household income & housing*. HHI>50K, proportion of households having an annual household income of over \$52,000 in 1996; HHI<20K, proportion having an annual household income of less than \$20,800 in 1996; OwnBuy, proportion of dwellings owned or being purchased; RentDwell, proportion of dwellings being rented; HighMort, proportion of households with annual household incomes under \$50,000 with a monthly mortgage of more than \$1000.

## Conclusion

On the face of it, TAFE participation is highest in areas where relatively disadvantaged people are living. That is, people in the target equity groups living in these areas are participating in TAFE in significant numbers. This is to ask what providers are doing to bring this about, particularly what equity strategies they are following. Research also needs to know more about the exact nature of the participation of particular groups of clients. In inner western Sydney, what courses are being taken by the large numbers of NESB students? How is this participation distributed by age or gender or employment status?

From this perspective of local participation analysis, future research might look in a number of directions:

- Seek for less simplistic policy understandings of educational disadvantage to underpin equity research in VET. Policy currently misrepresents the compound nature of social disadvantage. If research is right, local participation of equity groups is a very significant feature of TAFE provision, suggesting that equity is being achieved at the provider level. This dimension of equity needs to be written back into policy. How, for example, are these participation patterns related to ANTA's current emphasis on employment-based equity strategies, which are likely to be achieved at the local level?
- Conduct regional and local studies of participation in VET, closely analysing the equity strategies followed by providers. It is particularly important to establish to what extent providers are responding to 'compound disadvantage' rather than nominal equity status. (The data on local NESB participation may reflect the success of highly motivated and relatively advantaged NESB students accessing TAFE).
- Make comparisons of different kinds of providers, to examine the nature of the local equity clienteles served. Studies in a locality or region might explore to what extent ACE neighbourhood houses and TAFE institutes perform complementary but different roles in achieving equity outcomes. Here a pathways perspective is important, because this is potentially the key role that local agencies can fulfil, for example, in bridging disadvantaged clients to employment and training. The role of community-based agencies is particularly worthy of further research.

## NOTE

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## REFERENCES

- ABS 1998a *Education and Training, Australia*, 1997.
- ABS 1998b *Cdata96 with MapInfo* version 4.0 on CD-ROM. 1996 Census of Population and Housing, Australia 1996, Final release. Australian Bureau of Statistics.
- Anderson, D. 1998 Impact and consequences of markets in VET: research issues, in McIntyre, J. and Barrett, M. (eds) *VET Research: Influencing Policy and Practice*, Proceedings of the Annual Conference of the Australian Vocational Education and Training Association. Sydney: AVETRA.
- ANTA 1996, *Equity 2001: Strategies to achieve access and equity in vocational education and training for the new millennium*, ANTA, Brisbane.
- Ball, K 1998 Demographic factors influencing the likelihood of success in VET, in McIntyre, J. and Barrett, M. (eds) *VET Research: Influencing Policy and Practice*, Proceedings of the Annual Conference of the Australian Vocational Education and Training Association. Sydney: AVETRA.
- Butler, E and Lawrence, K 1996 Access and Equity within vocational education and training for people in rural and remote Australia. Report to the Australian National Training Authority. Adelaide: The University of Adelaide, Centre for Labour Studies.
- Golding, B, and Volkoff, V 1998 Participation in VET in Australia: same drives, different needs? in Ferrier, F and Anderson, D (eds), *Different drums, one beat: Economic and social goals in education and training*. Proceedings of a national conference organised by the ACER-Monash University Centre for the Economics of Education and Training. Adelaide: NCVER.
- Golding, B, Volkoff, V, Ferrier, F, Marshall, J and McGrath, S 1997. Stocktake of equity reports and literature in vocational education and training Brisbane: Australian National Training Authority.
- Lundberg, D and Cleary, M 1995 *Organising a Fair Go! An Evaluation of the Victorian Negotiated Targets Strategy*. Adelaide: TAFE National Centre for Research and Development.
- MCEETYA 1997 *National Policy on Adult and Community Education*. Ministerial Committee on Employment, Education and Training and Youth Affairs.
- McIntyre J, Brown A & Ferrier F 1996 *The economics of ACE delivery*. Research report commissioned by the NSW Board of Adult and Community Education. Sydney: NSW Board of Adult and Community Education.
- McIntyre, J (forthcoming) Equity and local participation in VET: policy critique and research directions. Accepted for publication in the *ANZ Journal of Vocational Education Research*, December 1998.
- McIntyre, J and Crombie, A 1996 *Who are Australia's adult learners*. Report on data on adult learning collected by the Australian Bureau Of Statistics Population Survey Monitor, May 1996. Canberra: AAACE.
- Volkoff, V. and Golding, B. 1998. Drowning not waving: equity target groups in the marketplace, in McIntyre, J and Barrett, M. (eds) *VET Research: Influencing Policy and Practice*, Proceedings of the Annual Conference of the Australian Vocational Education and Training Association. Sydney: AVETRA.