# Review of the under representation in Australian higher education by the socioeconomically disadvantaged and the implications for university planning

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#### **Abstract**

The paper provides a structured context for considering the participation of the socioeconomically disadvantaged in Australian higher education. It reviews the means by which this group is defined and identified, and examines reasons why they are under represented in Australian higher education. Developing the premise that considerable scope exists for improved, more proactive equity planning in Australian higher education, suggestions are made for planning strategies that could serve as a platform for increasing participation by the socioeconomically disadvantaged.

### 1. Background

Although often downplayed by economic rationalist philosophies, educational equity is generally recognised as an important consideration for higher education. Clarke (1997) lists a number of justifications for this:

- maximising Australia's human capital itself an economic rationalist argument;
- supporting social harmony;
- ensuring social justice;
- ensuring the fair sharing of the public funds used to support higher education;
- tapping the benefits of diversity;
- contributing to the defining of Australian culture.

On this later point, it is worth noting the role that higher education plays in defining the type of nation Australia is:

"...it is significant to note that higher education has traditionally been the guardian of society's cultural capital as well as the gatekeeper in terms of entry to the highest paid professions. It has done this by defining, encoding and reproducing what has been regarded as 'important knowledge', and in such a way that only a privileged minority has had access to that important knowledge ... In determining who learns, who teaches, and who researches, the traditional system of higher education has not only privileged some groups and disadvantaged others. It has also ultimately defined our culture, including what it means to live in this place called Australia at this time in our lives and history, and how we may position ourselves as individuals and as groups within that meaning." (Ramsay 1993: 58)

Since World War II Australian higher education has increasingly featured a number of characteristics that would be expected to support equitable participation: low tuition fees (with free higher education between 1974-1985); the presence of scholarship schemes and, after 1973, student support schemes based on need rather than academic merit; provision for flexibility of study through part time and external arrangements;

special arrangements for adult entry; and a range and diversity of higher education institutions, including colleges of advanced education (between 1965-1988) that were formed, at least in part, to broaden higher education opportunities beyond the traditional student base. Moreover, Australia is unique in implementing a national framework for equity in higher education — as described in *A Fair Chance For All* (Dawkins 1990) and updated as *Equality, Diversity and Excellence* (NBEET 1996).

Reflecting the above, the social mix of the student body in Australian universities is more representative of the nation's population as a whole than is the case in the USA and many western European countries (Anderson 1990). However, the lower socioeconomic status (Low SES) groups remain significantly under represented. Of all the disadvantaged groups targeted by *A Fair Chance For All*, this group, together with people from rural and geographically isolated areas, has made the least progress during the 1990s (Martin 1994, Skuja 1997).

This paper reviews issues relevant to a consideration of improving participation with success for the socioeconomically disadvantaged, and outlines the implications that such considerations have for university planning.

#### 2. Measurement of socioeconomic status

The first problem that university planners must face in this area concerns identifying the target population.

Internationally, there is little agreement as to which factors should form the basis for studying social stratification. Societies differ in the emphasis given to particular characteristics in influencing this stratification, and within any given society the emphasis can differ over time. In Industrialised nations it has proven useful to consider 'position in society' to be built around three interrelated concepts — class (having an economic basis), status (the prestige ascribed by society) and power (associated with a political context). Thus, in Australia, the SES of students has been widely studied using what Anderson and Vervoorn (1983: 129) called: 'the holy trinity of sociological indicators of social position — income, occupation and education'.

SES is inherently difficult to determine. Problems exist for each of the measurement scales available. For example, occupation scales, although commonly used, have inherent problems. Firstly, they have primarily been developed using male members of the workforce, and continuing changes in gender participation bring the validity of these scales increasingly into question. Secondly, some occupations, particularly in agriculture and primary industry, are not readily interpreted within these scales. Thirdly, the prestige accorded to occupations varies over time. Finally, some occupations (such as teaching) may have relatively modest income and status, but be associated with relatively high educational attainment.

Accurate details on income can be difficult to obtain without recourse to such sources as taxation records or highly intrusive questioning. Parental education is often used as an indicator of SES and data on it may be readily obtained although difficult to verify. High school attended (public versus private; or by geographical location) can provide a good correlate of SES. However, few Australian studies take mature age students living independently from their parents into account or adjust for the fact that the educational level of the population is increasing.

When faced with the need to develop an indicator of SES to monitor national participation levels in higher education, Martin (1994: 129) concluded that:

'In order to gain a precise measure of socio-economic status of higher education students, information about each student's personal and parental occupation status, income and educational background is required. However, this would necessitate the collection of a large amount of new data from students which would be intrusive and would be of doubtful reliability given the lack of detailed knowledge students often have about their family's financial situation. It would also be complicated by the age and domestic status of students—for example, mature age students living independently of their families may have quite different SES than younger students living at home with parents.'

Given these difficulties, Martin (1994) opted for a social status index based on the geographical location of students' home address within postcode areas, derived from a composite measure of occupation and education — the Australian Bureau of Statistics Index of Education and Occupation (EdOcc). The methodology had been investigated by a number of previous studies, particularly Jones who had concluded that with some limitations:

'At the national, state and capital city level, the evidence of this investigation indicates that the postcode methodology can usefully be applied using the ABS .... EdOcc, to develop profiles for the following subgroups:

- students aged 17-24 years, with no restriction on region, and
- students aged 25-64 years in major urban areas.' (1993: 63)

The Australian Department of Employment, Education, Training and Youth Affairs (DEETYA) has since adopted the definition recommended by Martin, whereby postcode areas are assigned to High, Medium and Low SES categories based on their score on the EdOcc index. All Australian universities now use this definition in their annual reporting of equity performance data.

However, the measure has a number of acknowledged limitations.

First, the basis for Jones' groupings was that the strength of the correlation found between students' actual SES and that attributed to them from the postcode of their home address is age dependent -the correlation being higher for younger students. With the advent of lifelong learning and increased participation by mature age students in higher education, this is a significant limitation.

Second, postcode areas are typically not homogeneous for SES — students from higher status areas will sometimes be poor and vice versa. In this regard, while a large research university and a small newer urban university may recruit students from the same urban postcode, it is likely that the two institutions will be recruiting from different constituencies within that postcode. Although the research university may be recruiting from the more affluent families, and the newer university from the less affluent, both would be regarded as enrolling students with the same SES — the average for that postcode. In this way, the postcode methodology has the potential to let universities avoid their responsibilities for providing opportunities for the socioeconomically disadvantaged by overestimating the number of Medium and Low SES students that they enrol. More generally, the postcode methodology offers a 'macro' measure to provide an idea of the number of Low SES students enrolling across the sector (particularly under-25s from urban areas). It is far less useful as a basis for assessing performance or for decision making in individual institutions, and of no use in tagging Low SES individuals to determine, for example, whether individual programs are targeting this group successfully.

The postcode approach has further limitations. For example, postcode areas in rural Australia can be extremely large and sparsely populated, encompassing a wide range of socioeconomic, geographic and economic vistas. They are seldom delineated to reflect geographically cohesive units but rather are based on such considerations as the convenience of mail runs and deliveries. A good example is postcode 4702 in Central Queensland, which includes suburban areas of Rockhampton as well as a discontinuous series of scattered rural mail runs extending several hundred kilometres inland. Finally, the occupational clusters used as a basis for EdOcc often fail to reflect the distinctive occupational and income structures of non urban centres.

The measure thus poses real problems when applied to regional Australia. Considerable dissatisfaction with the methodology has been expressed by staff in regional universities whose student bodies may be drawn largely from a small number of postcode areas.

Dissatisfaction has also come from staff at urban universities. For example, van Moorst and Ballock (1995) reported a study that compared an assessment of Low SES participation at the Victorian University of Technology using Martin's postcode index, with an index based on a similar methodology but using

census data from each Census Collector's District (CCD). The difference in using these two methodologies was dramatic; the ratio of participation by the bottom SES quintile to that by the top quintile changed from the 'official' figure of 0.83 (indicating significant under representation for Low SES) when using census data based on postcode areas, to 1.23 (or significant over representation) when using data based on CCDs.

Recognising the problems of using postcodes for defining SES (as well as for defining students from rural I isolated areas), DEETYA commissioned a study under its 1997 Evaluations and Investigations Program:

"...to consider alternative ways of identifying students from the three groups in question, given the problems of the current definitions and indicators. The expected outcome of the project is a better set of definitions and indicators to be used to identify students from the three groups." (DEETYA 1996: 1)

The recently released report of this study (Western, McMillan & Durrington 1998) has confirmed the shortcomings of the postcode methodology. Specifically, a statistical comparison of postcode and individual level measures revealed low correlations between the postcode values of the EdOcc Index and a range of measures of the SES of individual students. The report concluded that measures based on the characteristics of individual students, rather than those of the areas in which they resided, were needed to identify Low SES students. A sample survey of some 3,000 students indicated that measures of parental occupation and education, reflecting the family socioeconomic situation when the student was completing high school, were appropriate for both recent school leavers and mature age students. The report therefore recommended that information on the occupation and educational level of both parents at the time the student attended high school be collected from students through fixed choice questions on their enrolment form, and be used to construct two separate measures of socioeconomic status - parental occupational status and parental educational level. However, the report did not recommend specific threshold levels to define Low SES, but recommended instead that the definitions of thresholds should be determined by policy makers in consultation with the higher education sector.

The impact of the report's recommendations on DEETYA's definition of Low SES is awaited with interest.

# 3. Reasons for under representation in higher education by the socioeconomically disadvantaged

Understanding the reasons underlying the observed low participation in universities by Low SES is a prerequisite to addressing this issue. The barriers to participation for this group reflect a complex interplay of factors, many of which remain poorly understood.

#### 3.1 Financial barriers

Governments have tended to downplay the importance of financial barriers to participation. However, a number of student surveys by individual universities confirm that financial constraints have a major impact on limiting higher education opportunities for the socioeconomically disadvantaged (NBEET 1994). The most direct effect of poverty is the increased difficulty of attempting to live and study on a constrained income. Financial barriers can present in a variety of ways depending on individual circumstances. Important factors can include: the impact of limited flexibility or range of income sources; a lack of confidence in committing to significant debt (through HECS or other loans); a lack of financial support networks; or limitations in the ability to arrange relief from family or other responsibilities.

The Low SES group is clearly susceptible to inequities resulting from the trend for 'user pays' in higher education, as reflected by the government decisions to steadily remove public funding for enrolments in postgraduate coursework and to permit the offer of fee paying undergraduate places from 1998. Moreover, with bridging courses moving to a fee paying basis, the Low SES group will be less likely to access alternative pathways to higher education.

#### 3.2 Cultural barriers

Considerable emphasis is given in the literature to cultural barriers for this group relating to social norms, conduct and attitudes within society. Chapman (1992: 55) attributes the decision to continue in education to the:

'complex interaction between parental aspirations and encouragement, the quality of home investments in education, and the inherent psychological and intellectual make-up of the individual'

as well as economic variables such as the availability of employment. Williams *et al* (1993) suggest that families from Low SES groups provide less encouragement, have lower expectations for their children and are less likely to send them to private schools. The impact of 'home environment' can be seen in many ways — such as lowered educational aspirations, a lack of confidence in pursuing further study, or lowered educational opportunities. This recalls the indices of SES based on the sociocultural level of the home cited above (Comber and Keeves 1973).

#### 3.3 Impacts carried through from secondary school

Broadbent (1993) notes that the lower participation rates of people from SES backgrounds can be largely attributed to lower Year 12 retention rates and lower transfer rates from school to university. Further, an NBEET study of the 1994 cohort of Year 12 students in Victoria showed that:

'Social background is still a significant determinant of school success, with students from professional and managerial homes outperforming those from blue collar and semi-skilled families in key subjects and university entry .... [The study] found that social background has a significant influence on students' pass and failure rates in senior secondary subjects. It also shows that the types of subjects taken in Year 12 ... influences students' chances of going on to university.' (Jones 1995: 3)

# 3.4 Limited awareness of the higher education system

Other major barriers for the Low SES group include a limited knowledge of the higher education system — a limited awareness of the educational opportunities available and a lack of confidence in their potential value, lack of appropriate guidance for informed course and career planning, diminished access to opportunities to ensure the correct subject choice at the secondary level to address prerequisites, and a general inability to negotiate the system effectively. It is also proposed that tertiary selection processes have served to discriminate against and discourage access by non traditional students (Fulton 1992; Gardner 1993; Gale and McNamee 1995).

# 3.5 Factors impeding successful participation

NBEET (1994) provides a list of factors that put strain on the socioeconomically disadvantaged performing successfully in higher education once access has been achieved — many resulting from the fact that Low SES students often commence higher education study later in life. These factors include: lack of time to study; underdeveloped or rusty learning skills; competing claims of employment or family; social isolation at university; and separation from familiar social networks.

Factors may also emerge that make it difficult for the Low SES student to remain motivated to study or focussed on educational goals: needing to deal with study over a longer timeframe (studying part time or after completing a bridging course); suffering the stigma of a 'non standard student' who fits less well into the university culture; studying in isolation — through distance education or in a situation where the individual is incompletely socialised within the peer group; or being more likely to study in a generalist program without the added incentive and motivation provided by clear, profession based goals.

Given these potential constraints, it is perhaps surprising that recent studies suggest that once access has been achieved, the socioeconomically disadvantaged perform close to the average when compared with other students (Martin 1994; Skuja 1997).

#### 3.6 Interplay of multiple disadvantage

It has been argued that SES is one of the most important predictors of participation in higher education, representing the most pervasive element of disadvantage (Anderson and Vervoorn 1983; Postle *et al* 1997). Such authors have suggested that Low SES interacts with other forms of disadvantage in higher education and is a common central element of multiple disadvantage. For example, Low SES appears to be a major contributing factor to the disadvantage experienced by Aboriginal and Torres Strait Islander, and rural I isolated groups. Skuja (1997) showed that the observed low participation rates of Indigenous students and students from geographically isolated areas are strongly biased towards Low SES, indicating a strong interrelationship between SES and disadvantage for these two identified groups. Socioeconomic disadvantage also tends to increase the impact of disadvantage experienced for other reasons by various groups in society. For example, Low SES females are less likely to overcome the barriers of gender disadvantage than are High SES females. Finally, many students present as Low SES who are disadvantaged in other ways: such as emotional trauma sufferers, sole parents, the long term unemployed, or current or former offenders in custody.

# 4. Institutional strategies for increasing successful participation by the socioeconomically disadvantaged

'Equity programs' make up the basic tools (strategies) which a university planner has to consider in addressing the needs of Low SES.

#### 4.1 Overview

The problems associated with identifying the socioeconomically disadvantaged have already been discussed. The provision of a consistent definition for this group has long been a priority of government (Volker 1993). The 'official' SES definition based on postcode of residence (Martin 1994) is not helpful for use at the institutional or program level. Individual institutions often identify groups relevant to their own catchment that may equate to socioeconomic disadvantage such as the long term unemployed or the educationally disadvantaged, but which overlap significantly with other disadvantaged groups. Given this uncertainty with regard to group definition, the programs reported by many universities in their equity plan as addressing the needs of this group, with the exception of financial aid, have until recently tended not to be specific to this group — they have typically been multi targeted programs (addressing the needs of a number of target groups) in the areas of school links, special entry, awareness, bridging and educational support (Postle, Clarke and Bull 1997). Drawing heavily on the findings of Postle, Clarke and Bull, the major strategies employed are discussed below.

# 4.2 School links programs

School links programs fostering links between higher education and the secondary school system are long established strategies employed by universities as a means of recruitment. Although traditionally employed to attract 'excellent' students from elite schools, they have more recently been used to encourage a broader participation by all groups in society. Links programs have fostered interactive relationships between higher education and schools and have aimed to encourage students to pursue further education by advising of the availability of higher education programs, by enhancing opportunities for entry, and by providing support after entry.

School links programs typically involve visits to schools and the distribution of promotional and general information material. They may also involve campus visits by school groups at open days, residential camps and vacation schools. Workshops for school students — often targeting girls, often from rural areas and frequently involving a residential element — are also common.

The heavy reliance of many institutions on school links programs can cause problems in achieving a balance in student enrolment. NBEET (1994: 27) noted that: 'by focussing on high school students from disadvantaged areas, other potential non-standard students such as long-term unemployed people or adults who left school early, are receiving proportionately less attention'. There is a need to balance school links programs with

strategies that target potential students who are not school leavers. The imposition of minimum school leaver targets by the Australian government in 1994 and 1995 did not assist the striking of an appropriate balance in this regard.

Institutions often report, as equity strategies, broader programs for increasing community awareness of higher education opportunities, particularly such activities as attending career markets, conducting open days, and generally encouraging links between 'town and gown'.

# 4.3 Enabling programs

According to Postle, Clarke and Bull (1997), 23 universities reported some form of enabling program as an equity strategy in their 1995 equity plans. However, most programs were quite modest in scope as confirmed by the DEETYA higher education statistical collection. In 1997, eight universities reported zero enabling load; eleven reported less than 20 EFTSU enabling load; nine reported between 20 and 99 EFTSU; with only seven reporting enabling load of 100 EFTSU or more (DEETYA 1997). These latter seven universities, that included no pre 1960s universities, when considered together with Batchelor College, accounted for 79.6% of total enabling load for the sector (DEETYA 1997).

The smaller scale programs were typically bridging programs used to target specific groups, particularly mathematics and science programs for women. The larger programs typically catered for people who had not completed secondary school because of some form of disadvantage such as Low SES or rural/isolated, returning to study as adults. Bridging programs for Indigenous students accounted for around 40% of enabling load. Relatively few programs were aimed at school leavers; those that did tended to be 'content remediation' courses conducted concurrently with first year workload and often focused on mathematics or science.

A concern highlighted by Postle, Clarke and Bull (1997) was the reluctance of many universities to adopt significant enabling programs as pathways for entry for the 'educationally disadvantaged'.

During the staff interviews conducted for their study, the view was commonly expressed at a number of universities that such programs represented an inappropriate level of study for offer by a university. There was a heavy reliance on those universities that did conduct enabling courses, as well as the TAFE sector, to provide this service. This reluctance of some of the largest and best resourced universities to invest in such programs places significant strain on those that do and staff interviews suggested that in many universities, bridging programs were at the time under threat of significant contraction or were being moved to a fee for service basis. If enabling programs were to decrease significantly, then an effective pathway for advancing participation by severely educationally disadvantaged groups would be severely compromised.

# 4.4 Special admission schemes

During the 1980s, the Higher Education Equity Program put pressure on universities to review their selective admissions practices. As a result, many universities established special admissions mechanisms to facilitate entry by disadvantaged students. The increased emphasis on Recognition of Prior Learning (RPL) and non traditional entry during the 1990s has further strengthened the role of special admissions arrangements as an equity strategy.

Approaches utilised as part of special admissions strategies include targeted orientation programs, special monitoring of performance, and access to support and careers advice programs. Special admissions schemes are often used to target women in non traditional areas, students from non English speaking backgrounds and students with disabilities. They are also a central strategy in targeting students from Low SES backgrounds and rural I isolated areas. Targeting is usually on the basis of educational disadvantage: those who have experienced long absences from schooling, mature age students, under qualified students, students who can demonstrate hardship, or entry via recognised bridging programs.

Postle, Clarke and Bull (1997) found that many so called special admissions schemes involved little more than credit transfer and RPL, sometimes through clearly identified application procedures or predetermined articulated pathways that were promoted to the group(s) targeted and often left to the discretion of the academic department.

#### 4.5 Direct financial aid

Despite the connection between financial hardship and Low SES backgrounds, Postle, Clarke and Bull (1997) found that few universities report financial assistance or scholarships in addition to routine student loans arrangements as a strategy for Low SES; scholarships are typically used to attract academically excellent students, or to attract women into honours or postgraduate programs. The exception was the common practice of waiving or reducing fees into bridging courses for financially disadvantaged students or providing 'free' student support. As well, universities have tended to target the HECS exemption Merit Based Equity Scholarships introduced by the Commonwealth from 1997, to the socioeconomically disadvantaged.

#### 4.6 Programs providing student support

Generic student services provide a critical role in supporting participation by Low SES. For example, NBEET (1994: 28) identified: 'Important programs for low SES [as] career counselling; financial assistance schemes; referral services for literacy-numeracy skills; counselling services; and peer support and buddy networking programs'.

Postle, Clarke and Bull (1997) reported that in addition to these generic services:

- A majority of universities (23) reported some form of 'Learning Centre' providing one or more programs in such areas as study skills, communication skills, language skills or mathematics and computing support through group or individual tuition as formal programs, or through drop in advice. Many were also faculty based. A further four universities reported remedial programs offered through other mechanisms.
- Peer tutoring was reported in six universities with mentoring, particularly for women, reported in ten universities.
- Although academic support of some type was available in all faculties and departments, fourteen universities had also developed a formal program that targeted equity groups and included academic support as an element, often in combination with awareness, orientation, special counselling, remediation or mentoring.

# 4.7 Activities in teaching and learning

Postle, Clarke and Bull (1997) noted that simply adopting student focussed teaching and learning strategies — appropriate for the needs of all students — was, for many universities, an equity consideration. This involved broadening the range of teaching and learning approaches, greater discussion and dialogue concerning more relevant and inclusive curriculum, a greater willingness to acknowledge prior learning and experience, and the adoption of more student centred teaching strategies, including such innovations as peer tutoring. Peer mentoring and role model programs are also being introduced in an attempt to 'acclimatise' students from disadvantaged backgrounds into the often unfamiliar higher education environment.

The increasing flexibility seen in higher education provision is also improving the opportunities for study by the socioeconomically disadvantaged. Part time study has always been seen as a major strategy for improving participation by this group (DEET 1994); and the growth in the range of study modes, access and exit pathways, and general flexibility in study arrangements now evident — often linked to the use of computer based and communications technologies — is increasing the options for disadvantaged groups.

# 5. Implications for equity planning

#### 5.1 Overview

Over the past decade, the agenda for educational equity in Australia has come largely from government, particularly through the national equity framework described in *A Fair Chance For All* and as pursued through the annual Educational Profiles process. Nevertheless, throughout the 1990s all those with a concern for equity have feared that a time might come when it would fall from political favour. However, equity has become progressively more established as its platform has expanded from considerations of its base in social justice to the tangible benefits of human capital theory, and as universities have come to appreciate the benefits of encouraging diversity amongst the student body.

Equity has remained a set agenda item on the annual Educational Profiles discussions between DEETYA and individual institutions, and equity reporting by universities has become more rigorous. Equity was also incorporated explicitly into the Ministerial brief provided to the recent Review of Higher Education Financing and Policy (The West Committee Review). The Terms of Reference for the Review identified 'the equality of opportunity to participate in higher education' as one of the issues to be addressed (Vanstone 1997: 3), and directed the Review committee to pay particular attention to the need to ensure that, inter alia, 'financial, social, and geographic factors do not act as a barrier to higher education for appropriately qualified students within Australia' (Vanstone 1997: 4).

The imperative for considering educational equity is also growing by virtue of the changing nature of higher education:

- the continued move for 'user pays' and the decreasing level of government 'subsidisation' causing universities to seek increased 'non government' income;
- the greater deregulation of the operating environment in which universities exist and the increasing level of competition both within Australia and internationally;
- the general movement to 'corporatise' the management of universities and an accompanying emphasis on entrepreneurism and diversification of universities' operations, all of which generates competing priorities and can deflect attention away from equity concerns and values; and
- the growing impact of technology and its potential to create a new basis for disadvantage; the 'technology rich' versus the 'technology poor'.

Although government compulsion has been a major driver of equity in the past, there is now a growing realisation amongst a number of university administrations of the central nature of equity to the operations of a modern university. Equity should extend well beyond considerations of the privileged extending a helping hand to the disadvantaged, and involve mainstream institutional concerns — the role of higher education in meeting the needs of a modern post industrial society, the composition of the student body and how this impacts on the rigour of the professions, the nature of the curriculum and modes of teaching to ensure effective education, issues of student retention and progression and the factors which influence them, the provision of appropriate support for the full range of students, and the relationship between university and community.

Given that the above considerations should be crucial to the definitions of institutional missions, there is a need for improved equity planning by universities as well as more proactive approaches to educational disadvantage by both institutions and government. This requires a greater knowledge of the causes of educational disadvantage and a greater appreciation of just what universities can do to impact on this disadvantage. In this regard, Ramsay (1993: 13) stated:

'it is clear that each of the following would be helpful to the process [of enhancing equity planning]:

- a succinct and coherent compilation of existing research with respect to the nature of the current educational disadvantage experienced by the range of equity target groups;
- an exploration and analysis of the causes of this educational disadvantage, including the role of the education system in causing, contributing to and reproducing the current inequalities;
- an identification of those matters which are within the power of the higher education system to change, and which require action within institutional structures, processes and culture, and those which need to be remedied or redressed at the level of symptomatic outcomes;
- the identification of planning and reporting principles and requirements which encapsulate and communicate this research and analysis, and which direct institutional planning and action towards elimination of the causes of educational inequality as well as redressing its effects'.

These and other issues of relevance to a consideration of institutional planning and improved decision making in the area of educational equity are discussed below.

#### 5.2 The identification of Low SES

Much is dependent on improved procedures for identifying SES to enable better information collection as a basis for decision making. The importance of addressing the recommendations of the 'Western Report' (Western, McMillan and Durrington 1998) cannot be overstated.

#### 5.3 Better understanding the basis for disadvantage

As Ramsay (1993: 9) noted: 'Without an analysis and identification of causes, there is no basis for deciding what to prioritise at the institutional level, or how to evaluate progress at the national level.' Recognising the barriers to access and the underlying causes are a prerequisite to achieving the cultural changes necessary in the university sector to ensure student equity.

Some work is occurring into the barriers to access for the socioeconomically disadvantaged. For example, The University of Melbourne is investigating the barriers for entry by socioeconomically disadvantaged students into law (Postle *et al* 1997). However, there is a paucity of published research in this area. Much is assumed intuitively about the factors contributing to low participation by the socioeconomically disadvantaged but little hard research has occurred on testing these assumptions or expanding our knowledge of the complex interactions between the factors involved. More emphasis needs to be given to supporting research in this area. Such an emphasis may arise with DEETYA's proposal to make Low SES a central feature of the way that we identify disadvantage in higher education (Director, Quality and Equity, DEETYA — pers comm), particularly if improved data collection techniques such as those recommended by Western, McMillan and Durrington (1998) become available.

# 5.4 Catchment analysis

Catchment analysis, focusing on demographic characteristics relevant to SES, is essential to gauging both the extent of Low SES within the population and its coexistence with other types of disadvantage. Such analysis provides basic information to assess and quantify the need for action to improve higher education equity, and to suggest the types of strategies likely to work effectively.

For regional universities that draw a majority of their students from a primary catchment area which can be closely approximated by a defined geographical region, catchment analysis can serve as a powerful analytical tool to aid equity planning. It is still of considerable help to institutions that have poorly defined catchment regions as is the case with metropolitan universities which draw most of their students from a population 'shared' by several other institutions, or those universities with high proportions of students studying externally from a broad catchment.

This links back, in turn, to the need for a better definition of Low SES that will enable more accurate mapping of the geographical distribution and incidence of socioeconomic disadvantage.

Catchment analysis needs to be complemented by analysis of patterns and trends revealed by the four defined DEETYA equity indicators — access, participation, success and retention. These offer an indication of the gap between the Low SES target group and the general student population, along key dimensions of performance. The access indicator in particular needs to be linked to the catchment analysis in order to be interpreted in full context.

### 5.5 Cohort analysis

A further area for research and analysis involves the tracking of student cohorts to assess more comprehensively (than can be ascertained from the DEETYA indicators) the extent and pattern of their retention, persistence and successful completion of studies. Cohort based studies are vital to accurate identification and measurement of 'what happens to students' over time. Reliance simply on the DEETYA retention indicator, that measures merely 'apparent retention', hides much valuable information such as the extent to which students transfer between programs and institutions, temporarily defer or withdraw from study, etc. Cohort based analysis provides this crucial information and enables a more informed perspective for development of strategies appropriate to the situation.

Additional, in depth surveys of selected Low SES cohorts, involving for example questionnaires, interviews and focus groups, are also vital for gaining qualitative data that might shed light on the key variables affecting student retention and success. This information is crucial to effective development of equity strategies, and valuable in assessing the success and relevance of existing strategies and programs.

It is now generally appreciated that Low SES rural I isolated students are amongst the most vulnerable to the negative impacts of such changes as the rise in user pays in higher education or the recent alterations in provision of Austudy or HECS (Higher Education Council 1992, Postle *et al* 1997). The difficulties in interpreting the impact of such environmental and program changes through routine analyses of enrolment and student data have already been discussed. Being conscious of the vulnerability of Low SES groups to the sorts of policy and organisational behavioural changes now taking place, institutional researchers should be introducing special monitoring and analysis systems capable of identifying any changes that may occur in the enrolment patterns of this group. We are reminded of the experience of the Committee to Review Fee Paying Arrangements for Postgraduate Courses in 1995 which concluded that fee paying did not serve to deter disadvantaged groups from accessing postgraduate coursework degrees based on an absence of data suggesting that it might. Drawing conclusions from a paucity of information available can be hazardous.

A limitation to cohort analysis results from the increasing variation in study pathways now taken for granted, particularly by the growing numbers of mature age students and with the growth in flexible delivery and the use of educational technologies. Students may change from full time to part time study and back again, switch between internal and external modes, adopt a wide range of study options, transfer between educational providers or sectors and drop out for extended periods before returning to study. It can be difficult to identify a distinct cohort, particularly for mature age students, and it is exceedingly difficult to track transfer students or those who leave the system and return later. Improved methods for tracking students through the range of study options now available would greatly facilitate the assessment of higher education outcomes.

# 5.6 Setting objectives and strategies

The definition of equity objectives must be based on the identification of key issues, and this in turn must be based on a range of analytical processes — student catchment analysis, analysis of performance against last plan, and analysis of the operating environment.

Although DEETYA requires universities to provide equity plans that include a consideration of student catchment analysis, there is no parallel requirement for these plans to incorporate a consideration of forces

at work within the wider operating environment. This is a shame because much can be learned by employing the basic planning tool of an environmental analysis. For example, access remains the biggest issue for the Low SES group; the 'Martin' indicators (Martin 1994) suggest that although Low SES retention and success rates are currently on par with other students, this group remains significantly under represented in the population of commencing students (Skuja 1997). However, changes occurring in the operating environment such as the growth in 'user pays' and the increasing deregulation of the postgraduate coursework market, could well put pressure on the retention and success of this group in the future. As another example, the trend to lifelong learning and the growing pressures for study by adults implies that awareness programs cannot be run exclusively as part of schools links arrangements which target high school students only.

# 5.7 Program evaluation and review

In recent years, Australian universities have introduced a number of initiatives to facilitate access and successful participation by equity target groups — including the socioeconomically disadvantaged. Planning needs to incorporate effective monitoring of these initiatives and review of their efficiency, so that they can be modified and improved to better achieve equity objectives. These initiatives, involving innovative teaching/learning strategies, new approaches to student support including such things as student (peer) mentoring, focus groups, and role model programs, all need an appropriate mix of qualitative and quantitative analysis.

Institutional researchers can also provide expertise in how performance information can and should be evaluated. For example, the equity data generated by the 'Martin' indicators (Martin 1994) lend themselves all too readily to inappropriate inter institutional comparisons. Institutional researchers need to emphasise the importance of understanding the limitations of the available approaches, to communicate the need for any performance data to be contextualised before institutional comparisons are attempted, and to promote the use of appropriate benchmarking strategies as a basis for improved institutional decision making.

# 5.8 Establishing linkages

To date, the equity research and equity practitioner communities in higher education have tended to remain separate. While compiling equity plans, many practitioners have expressed difficulties in identifying the relevant research occurring within their own institution. At the same time, a consistent finding is that the academic community is largely unaware of such fundamental notions as the national equity framework, even many who are conducting research into equity related areas, who are involved in equity committees, or who are serving as equity liaison officers (Postle *et al* 1997). Gaps also exist in the links between the equity professional communities, university management, and staff involved in planning and institutional review.

The growing need for these disparate groups to come together and to share ideas has clearly been identified, as indicated by the 1997 AAIR conference with its theme of equity, and the fact that the establishment of linkages has been made the central theme of the 3rd National Equity in Higher Education Conference being held in September 1998.

Other types of linkage are also important. For example, the acceptance of equity as a mainstream institutional concern depends, in part, on the incorporation of equity planning into the overall planning and review mechanisms of the university. There must be a congruence between institutional, faculty and equity planning, an alignment of objectives and strategies across these planning frameworks, and equity planning must interrelate with institutional and faculty strategic plans so that each supports and reinforces the other.

In addition, equity needs to link in with the changes currently under way in general teaching and learning — the emphasis on general skills acquisition, the diversification of approaches to meet individual needs, and the use of technology to provide flexibility in the teaching and learning environment. Equity also interrelates with the issues of overall student retention and graduate outcomes, which are emerging as the major teaching I learning issues for higher education in the next decade.

#### 6. Current priorities and possible strategies

Although much has been achieved in pursuing equity objectives in higher education, much remains to be done. In particular, the limited progress in achieving increased participation by the socioeconomically disadvantaged suggests a critical need for assigning priority to this area.

University planners and institutional researchers can play a significant role in raising issues for consideration within universities, helping to support and structure the discussion of these issues in house, and providing input into the means by which they may be addressed. Some urgent priorities follow.

# 6.1 Improving awareness by low SES

Although most universities already have school links programs raising the awareness of school leavers to opportunities in universities, there is considerable scope for existing programs to encompass broader and more intensive approaches in reaching the socioeconomically disadvantaged.

Even more scope exists for universities to reach out more effectively to the mature age Low SES population, and to improve their awareness of and access to higher education opportunities — particularly to the range of study options and modes now available, the mechanisms of support that exist, and the potential benefits of higher education study. Initiatives that bring the university more into the public eye and involve it in cultural and social activities in the broader community do much to break down existing barriers and to broaden awareness of the university sector. There is also considerable scope for the general promotion of higher education to the broader Australian community. It is somewhat ironic that concerted efforts are being made through the Australian International Education Foundation (AIEF) to market and promote Australian higher education overseas while no such coordinated effort is being conducted within Australia itself.

# 6.2 Addressing economic disadvantage

The higher education sector on its own cannot be expected to have a major impact on socioeconomic stratification within society. Effective strategies will depend on government policy in areas such as student financial support and the degree and nature of 'user pays' in higher education. However, there are some strategies that can be adopted by universities that address economic disadvantage.

The provision of stronger financial support (including scholarships, bursaries, and zero/low interest loans) will encourage access by Low SES students. A potentially valuable strategy is the Merit Based (HECS exemption) Scholarship Scheme introduced by the Commonwealth that many universities appear to be using to target Low SES. Also important are financial advisory schemes and flexibility in student payment options — deferred payment arrangements for Student Association fees, for example. Much discussion has also been given of late to the extension of the HECS scheme to provide students with funds to purchase study resources, particularly computers.

# 6.3 Addressing educational disadvantage

This complex area encompasses both pedagogical issues and administrative processes. A particular need is the expansion of bridging and remedial programs — as these play such a vital role in facilitating both access and academic success. A complementary need is the expansion of RPL (Recognition of Prior Learning) and associated alternative entry provisions, particularly for adults from Low SES background. Another area deserving greater effort is the further development of course articulation and other links with TAFE, to improve the range and flexibility of pathways available for entry to higher education.

Controversial proposals such as the establishment of a foundation year for undergraduate study, the inclusion of compulsory units of core skills as part of an academic award program, or the moving of professional courses (such as Medicine) to postgraduate entry frequently pitch concerns about efficiency of resource use and international trends, with concerns about best practice in teaching and pedagogy. Debates on these issues should include a consideration of the academic advantages that such strategies

could offer the significant proportion of students who enter higher education with some lack of educational preparation, or who are otherwise 'late bloomers'.

# 6.4 Addressing cultural disadvantage

Cultural factors are frequently cited as posing barriers for participation with success by Low SES (NBEET 1996). A large body of literature has developed, particularly in the USA, indicating the importance of student involvement in the higher education culture and of interaction with students and staff in student persistence / retention (Williford 1997; House and Kuchynka 1997). This international body of research on student retention may offer Australian universities considerable help in devising strategies that enable Low SES 'non traditional' students to cope better with a higher education culture that may be unfamiliar or even hostile to them. Such considerations may be particularly useful for the large and growing number of students attempting their first qualification by off campus study, for whom institutional involvement is all the more difficult and who, as a group, display attrition rates far higher than do on campus students.

# 6.5 Maintaining confidence, motivation and focus

This is perhaps the least considered area at present. Many Low SES students need to maintain momentum over an extended length of study whilst facing concomitant responsibilities and pressures on time as well as the burden of watching their HECS debt continue to grow and wondering if it is all worth it. It is this lack of confidence in the ultimate value of the qualification, and perhaps in self, that makes the investment of time, money and the sacrifice of other options so difficult to make. If devised and implemented effectively, strategies to build confidence and to maintain motivation and focus would be extremely useful to help students persist successfully in higher education.

#### 6.6 The role of new technologies

The new technologies provide a new basis for discrimination amongst students - the 'technology haves' and the 'technology have nots'. However, with proper planning, new technologies also offer potentially powerful strategies for addressing the needs of a range of disadvantaged groups (for example, Laughton and Shaw 1993) by enabling greater flexibility and scope in education and supporting student centred, individualised learning. When planning for the introduction and management of new educational technologies, universities need to consider how these innovations can be appropriately accessed by all students and used to improve opportunities for disadvantaged students.

#### Conclusion

Despite the progress made over the past decade in both the operation and perception of educational equity in the university sector, much still needs to be done. Of all the identified disadvantaged groups, Low SES and rural / isolated have made the least progress in terms of access and participation in higher education over the past decade. Both groups remain significantly under represented with little prospect of improvement without a significant shift in attitude and practice within the sector.

It is now generally appreciated that SES constitutes a central determinant of disadvantage; a fact appreciated by DEETYA who actually proposed in 1997 that Low SES be adopted as the central indicator of disadvantage within the sector. The success of future programs will depend very much on a broadening of the perception of equity as a mainstream concern for universities, on the incorporation of equity planning into institutional and faculty planning processes, and the availability of reliable and valid techniques to appropriately target programs and assess their efficacy. The need for these developments is made all the more critical not only by the increasing degree of scrutiny on performance in these areas given by DEETYA as part of Educational Profiles reporting, but also by the factors in the operating environment that are tending to extend the potential for some members of society to be disadvantaged in terms of their opportunities for successful participation in higher education.

University planners and institutional researchers have a key role to play in assisting their institutions to meet the challenges raised in these areas.

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