

Australian higher education's contribution to social inclusion

Submission to the review of Australian higher education

This submission addresses the fourth term of reference of the review of Australian higher education –

The Review Panel will advise Government on possible key objectives for higher education in Australia, starting with the themes below, and how these could be achieved through reform of the sector and changes to regulation and funding arrangements.

* * *

Underpinning social inclusion through access and opportunity

Supporting and widening access to higher education, including participation by students from a wide range of backgrounds.

(DEEWR, 2008a)

The paper takes as its starting point the observation in the discussion paper that higher education can enhance social inclusion and reduce social and economic disadvantage by deepening our understanding of health and social issues and by providing access to higher levels of learning to people from all backgrounds (Commonwealth of Australia, 2008b: 1). The paper argues that the current Australian policy on equity in higher education, which is based on *A fair chance for all* (DEET, 1990), continues to be important for national policy, evaluation and intervention. However, it has gaps and limitations when applied to institutions and their regions. While higher education has hardly featured in social inclusion policy in Australia or overseas, social inclusion offers a useful framework for structuring and evaluating institutions' contribution to equity.

The paper is in these parts:

- 1 Current Australian policy on equity in higher education
- 2 Evaluation of policy for students from low socio economic status backgrounds
- 3 Possible contribution of social inclusion
- 4 Implications for higher equity policy
 - 4.1 The importance of locality
 - 4.2 The relation between nation building and regional development
 - 4.3 Coordination across agencies and portfolios
 - 4.4 Importance of curriculum
 - 4.5 National targets
 - 4.6 National coordination
 - 4.7 Role of targeted funding
- 5 Recapitulation and conclusion
- 6 Response to the review's questions
- 7 References.

1 Current Australian policy on equity in higher education

The origins of the current Australian policy on equity in higher education are in *Higher education: a policy statement* ('the White Paper') (Dawkins, 1988). In the White Paper the Australian Government stated its commitment to improving access to and success in higher education (page 20) and said that direct and specific strategies are needed at the institutional, State and national levels to achieve greater equity in higher education (page 21). The Government stated its intention to develop a statement of national equity objectives in higher education and develop guidelines and suggestions for institutions to adopt in their planning (Dawkins, 1988: 54).

The White Paper argued that –

The equity goals of institutions should be based on an analysis of the nature and level of disadvantage experienced by different client groups in the institution's student population and wider catchment area. This analysis should examine any significant variations in educational participation and outcomes, including differences in the rate of student progress and graduation.

(Dawkins, 1988: 55)

The statement of national equity objectives in higher education foreshadowed in the White Paper was published two years later as *A fair chance for all: national and institutional planning for equity in higher education* (DEET, 1990). *A fair chance for all* identified six groups as being 'significantly under-represented in higher education' (DEET, 1990: 10):

People from socio-economically disadvantaged backgrounds
Aboriginal and Torres Strait Islander people
Women, particularly in non-traditional courses and postgraduate study
People with disabilities
People from non-English-speaking backgrounds
People from rural and isolated areas.

(DEET, 1990: 10)

As the discussion paper observes (Commonwealth of Australia, 2008b: 28), *A fair chance for all* said that –

The overall objective for equity in higher education is to ensure that Australians from all groups in society have the opportunity to participate successfully in higher education. This will be achieved by changing the balance of the student population to reflect more closely the composition of society as a whole.

(DEET, 1990: 8)

This principle of proportional representation was operationalised in *Equity and general performance indicators in higher education* (Martin, 1994) which defined each equity group and established for each group performance indicators and a reference value, which is the group's share of the total population. Institutions are free to decide which equity groups to concentrate on and to adopt their own institutional target for each equity group they target.

2 Evaluation of policy for students from low socio economic status backgrounds

James and colleagues (2004: 65) found that there had been negligible if any improvement in the participation of students from low socio economic backgrounds since 1991, and James, Bexley & Maxwell (2008: 23) found that by 2006 the level of under representation of students from low socioeconomic backgrounds ‘has remained virtually unchanged for the past decade despite the expansion in the total number of domestic students in higher education.’ There is evidence that Australia is unusual in failing to improve access for people from low socio economic status backgrounds. Clancy & Goastellec (2007: 150) compare the changes in social groups’ access to higher education in 7 countries, which are set out in table 1.

Table 1: comparison of changes in social groups’ access to higher education in 7 countries

Australia	Admission to higher education: odds ratio parents white collar/blue collar (Marks et al, 2000)	1980: 2.4			1999: 2.3
	Admission to higher education: odds ratio parents with higher education/ parents with no higher education (Marks et al, 2000)	1980: 2.5			1999: 2.5
Finland	Participation in higher education: odds ratio parents with higher education/ primary education only (MOE, Finland, 2005)	1985: 12.1	1990: 11.3	1995: 9.9	2000: 7.2
France	Higher education enrolment: odds ratio white collar/blue collar (DEPP, 2005)	1984: 8.3			2002: 7.4
Ireland	Admission to higher education: odds ratio 6 highest/5 lowest groups (Clancy, 2001)	1980: 6:2	1986: 6.1	1992: 3.2	1998: 3.5
Norway	Participation in higher education: odds ratio parents higher education/ compulsory education only (MOER, Norway, 2005)		1992: 8.8		2002: 7.7
UK	Higher education: odds ratio white collar/ blue collar (DES, 2003; ONS, 2004)	1960: 8.9	1970: 8.9	1980: 6.5	1990: 6.3 2000: 4.2
USA	College participation by family income: odds ratio top/ bottom quartile (Mortenson, 2005)	1970: 7.21	1980: 4.59	1990: 6.36	2000: 5.56 2003: 5.75

Source: Clancy & Goastellec (2007: 150) Table 3: Changing inequalities in access to higher education by social group: evidence from selected countries

It will be noted from the table that in the USA in 1970 students whose family's income was in the top quartile nationally were 7.21 times more likely to participate in college than students whose family income was in the bottom quartile. However, the odds ratio improved to 5.75 by 2003. In comparison there has been negligible improvement in the inequality in access to higher education in Australia. In 1980 students whose parents had a white collar occupation were 2.4 times more likely to gain admission to Australian higher education than students whose parents had a blue collar occupation, and this fell only minimally to 2.3 times in 1999. Similarly, students with parents who had a higher education qualification were 2.5 more times likely to gain admission to higher education in Australia than students whose parents had primary education only in 1980, and this hadn't improved at all by 1999.

Marks & McMillan (2007: 372) reach a different conclusion which Marks (personal communication, 24 April 2008) suggests may be due to a different construction of the odds ratios. Clancy & Goastellec (2007: 151) conclude –

In only one of the countries on which we report, Australia, has there been no reduction in social group inequalities – in this instance over a period of almost two decades.

(Clancy & Goastellec, 2007: 151)

Two explanations may be considered for the lack of improvement in the access for people from low socioeconomic status backgrounds 'despite the expansion in the total number of domestic students in higher education' as James, Bexley & Maxwell (2008: 23) observe. First, too much emphasis may have been given to improving access by expanding the system. The White Paper (Dawkins, 1988: 21) said that –

Improvements in access and equity are heavily dependent on growth in the system. Without new places in the system, it will be difficult to change the balance of the student body to reflect more closely the structure and composition of society as a whole.

(Dawkins, 1988: 21)

But studies have subsequently found that expansion of higher education reduces inequality when participation of the advantaged group reaches saturation, but not before. This is Raftery and Hout's (1993) hypothesis of maximally maintained inequality, the hypothesis that the expansion of a level of education does not increase the odds of a less advantaged social class participating until the participation of the more advantaged class reaches saturation, which is the point at which nearly all or around 80 per cent of young people participate. Arum, Gamoran & Shavit (2007: 18-9) found that the hypothesis of maximally maintained inequality is supported for participation in higher education on average across the 13 countries included in their analysis. A corollary of the hypothesis of maximally maintained inequality is Lucas' (2001) hypothesis of effectively maintained inequality, the hypothesis that once saturation is reached in a level of education, lower inequalities in participation overall may be replaced by inequalities in participation in a more selective tier or track at that level. Applying this to Australian higher education, the hypothesis states that more equal participation in higher education overall would be replaced by increased inequality in participation in the most selective tier of higher education. Arum, Gamoran & Shavit (2007: 20-1) report mixed results for the hypothesis of effectively maintained inequality.

In addition to a possible over reliance on expansion to improve access for people from low socioeconomic status backgrounds, a second possible reason for the lack of improvement in equitable access is the lack of a strong causal explanation or at least hypothesis for under representation. The White Paper (Dawkins, 1988: 21) said that –

While growth will facilitate the achievement of greater equity in higher education, growth alone will not be sufficient. As a complement, more direct and specific strategies are needed at the institutional, State and national levels. The development of these strategies requires a close examination of factors influencing both access to higher education and the success rates of those who gain entry. Schools as well as higher education institutions will have a crucial role to play in this process.

(Dawkins, 1988: 21)

Soon thereafter, in reflecting on the ‘Dawkins revolution’ Karmel (1989:9) observed –

Few would quarrel with the importance which the White Paper attaches to access and equity. However, aspirations to enrolment in higher education are formed earlier in the lives of potential students than at the point of entry. Family attitudes, parental expectations and the cultural environment affect the educational aspirations of the young. Persistence at school is the critical factor in bringing people to the point of entry to post-school institutions.

Accordingly, higher education institutions can make only a minor contribution to improving the social mix of students. Changes must occur in society itself and in the opportunities available in schools.

(Karmel, 1989: 9)

But the close examination of factors influencing access to higher education foreshadowed in the White Paper has not been undertaken in Australia until recently, and it indeed has found that ‘Schools as well as higher education institutions will have a crucial role to play in this process’ as the White Paper envisaged. James, Bexley & Maxwell (2008: 26) found that –

From an analysis of the available data, there appear to be two main factors underlying the low participation rate of students from low SES backgrounds in higher education: non-completion of secondary schooling — related to lower levels of academic achievement in school — and progression to the VET sector or to work rather than higher education.

(James, Bexley & Maxwell, 2008: 26)

James, Bexley & Maxwell (2008: 10) argue that it is likely that a lower level of achievement in school by pupils from low socio economic status backgrounds is a precursor to lower educational aspirations and thence lower school completion rates. Similarly, Minister Gillard’s ministerial budget statement for 2008-09 (Commonwealth of Australia, 2008a: 9) said that ‘The Government understands that the reasons why students from disadvantaged backgrounds do not make it to higher education usually have their roots far earlier in life.’ That is, inequity in higher education originates 15 years earlier. This is a reiteration of international findings. Sparkes & Glennerster (2002: 178), for example, report –

Several strands of CASE's [ESRC Research Centre for Analysis of Social Exclusion] work have reinforced the conclusion that educational failure is strongly associated with the process of social exclusion [references omitted]. Moreover, there is growing evidence that this is more than an association. The relationship is causal and can be reversed. But it is a long and difficult process to do so. And we still know too little about what works and what does not.

(Sparkes & Glennerster, 2002: 178)

This has led governments in the US and the UK to develop a role for higher education in what is called in the US 'early outreach' to raise the aspirations and achievements of pupils in the early and middle years of schooling. Higher education institutions provide systematic and graduated enrichment and support programs for pupils, their teachers and their parents. Venezia & Rainwater (2007: 18) report that some programs offered by US college start with pupils as early as third grade, although most start at junior and middle secondary level. Programs include tutoring, mentoring, counselling, activities to involve parents, and development of school curriculum and staff. One of the early US State programs is Florida's College Reach Out Program (CROP) which was started in 1983.

A good example of this collaboration is provided by San Diego State University, which runs 3 major programs in collaboration with school systems. The City Heights educational collaborative was started in 1998 and involves a primary, middle and high school. About 60 students from San Diego State's education college teach in the City Heights schools each year, and students and academic staff from more than 40 other academic departments have participated in the partnership through research, service learning and other projects (Hebel, 2007b). The Compact for Success is a partnership between the university and Sweetwater Union High School District that was started in 1999 (Hebel, 1007a). The university starts by inviting pupils in grade 7 and their parents to an information session on the university campus. By the time pupils are in grade 10 campus visits have progressed to include introducing students to academic elements and support services, reviewing individual pupils' 4 year plans, stressing the importance of academic readiness and rewarding continued academic success. The university also helps the school district with its curriculum and teacher development. The university guarantees admission to all Sweetwater graduates who meet the program's achievement and participation requirements. Thirdly, university's National Center for Urban School Transformation identifies successful urban schools throughout the USA and brings their best practices to support other urban schools in creating model high performing schools (San Diego State University, no date).

The success of these and other programs supported by States and philanthropies led the Clinton administration to introduce in 1999 GEAR UP – Gaining Early Awareness and Readiness for Undergraduate Programs. GEAR UP allocates grants of 6 years to states and partnerships to provide services at middle and high schools in depressed areas. Programs serve an entire cohort of students beginning no later than the seventh grade and follow the cohort through high school (U.S. Department of Education, 2008).

In 2001 the Blair Government introduced Excellence Challenge, which has now been amalgamated into Aimhigher, to widen participation in higher education by raising the awareness, aspirations and attainment of young people from under-represented groups (HERO Ltd, no date; DfES, 2003: 13). James, Bexley & Maxwell (2008: 76) report that 'After 18 months of Aim Higher, the proportion of year 11 students from participating schools was 3.9 per cent higher than in non-participating schools.' The UK Government is reportedly considering a recommendation from the National Council for Educational Excellence that

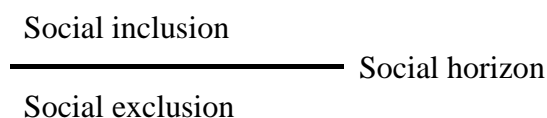
‘universities . . . be asked to partner primary schools to encourage children as young as five to set their sights on university . . . because of concerns that by the time pupils are in their teens, many have rejected the idea of going to university’ (Curtis, 2008).

In contrast to the US and the UK, there has been no national higher education early outreach program in Australia, although some individual institutions such as Griffith University have introduced early school intervention programs.

3 Possible contribution of social inclusion

Social inclusion is the capacity to participate in key activities of the society. Its opposite social exclusion is a form or concept of poverty, and the relation between poverty and social exclusion is much contested. While social inclusion/exclusion is often presented as a dualism or dichotomous classification, social inclusion and exclusion are better considered as a continuum above and below the social horizon –

Figure 1: the social inclusion-exclusion continuum



Gough, Eisenschitz & McCulloch (2006: 50) depict the relation between different levels and concepts of poverty and social exclusion this way –

Table 2: different levels and concepts of poverty and social exclusion

Concept of deprivation	Measure
Oppressive relations	Disempowerment, alienation
Social exclusion 3	Lack of cultural and social capital
Social exclusion 2	Constraints on social participation such as racism, sexism, etc
Social exclusion 1	Insufficient resources to participate in normal social interactions
Relative poverty	Resources less than a defined benchmark
Absolute poverty	Insufficient resources for physiological reproduction

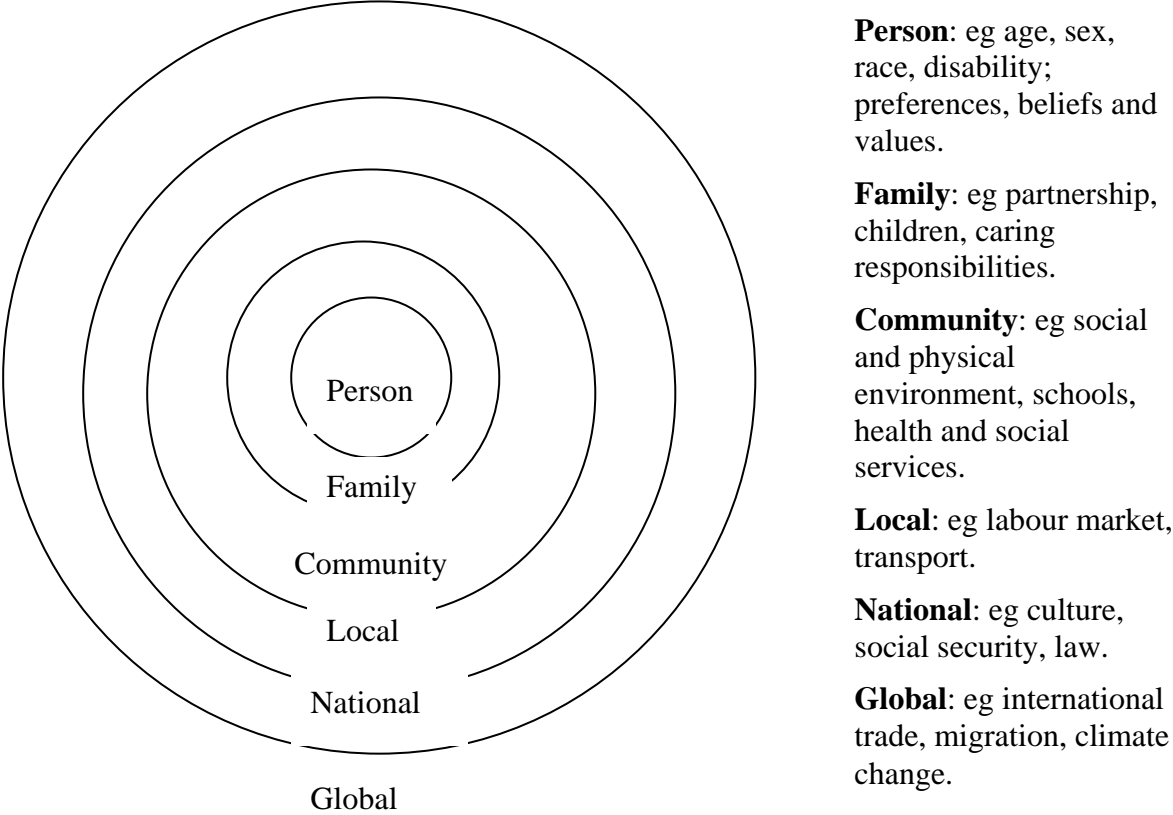
Source: adapted from Gough, Eisenschitz & McCulloch (2006: 50) Table 3.1: Different concepts of deprivation.

The concept of different levels of engagement in society is useful in identifying a role for higher education in social inclusion since levels of education are as closely associated with levels of engagement in society as they are with levels of pay and employment. A person without literacy and numeracy is excluded from many key activities in a modern industrialised society, although they would have been part of the large majority in Medieval societies (King, 2008). A person with only primary education is less excluded than the illiterate and innumerate, but remains excluded from much employment and many other opportunities to participate in a modern industrialised society (O’Connor & Moodie, 2008a).

In the previous age of elite higher education not to participate in higher education was to be excluded from the elite, but it did not mean exclusion from the mainstream of society which also did not participate in higher education. But in an age of mass higher education not to participate in higher education is to be excluded from medium and high status occupations and therefore from medium and high income as the late Martin Trow (1972: 69-70) observed. It also excludes people from the highest level of engagement in society – from society’s sophisticated cultural and political conversation, and therefore from a level of political engagement, influence and power (O’Connor & Moodie, 2008b).

Burchardt, Le Grand & Piachaud (2002a: 7) argue that different levels of social organisation influence each other. They depict the relations between levels of society as a series of concentric rings, or as an onion as they describe it. At the heart of the onion is the individual, whose social exclusion is affected by their personal characteristics such as their age, sex, race, disability, preferences, beliefs and values. The next ring of the onion is the family, where a person’s social exclusion is affected by their partnership, children and caring responsibilities. The next level is the community which Burchardt, Le Grand & Piachaud say includes the family’s social and physical environment, and local services – educational, health and social. The fourth level of influence on the individual is the local such as the local labour market and transport. Then comes national influences such as culture, social security and law. And the final ring of Burchardt, Le Grand & Piachaud’s onion is the global influences of international trade, migration and climate change.

Figure 2: levels of social organisation



Source: Burchardt, Le Grand & Piachaud (2002a: 7) Figure 1.1 An integrated approach

Burchardt, Le Grand & Piachaud (2002a: 7-8) note that intermediate levels of social organisation such as the community is influenced not only by the broader local, national and international levels of social organisation, but also by the families and individuals who constitute it. It is also clear, although Burchardt, Le Grand & Piachaud don't make this point, that their levels of social organisation aren't strictly hierarchical. Thus a person's race, which Burchardt, Le Grand & Piachaud describe as an individual characteristic, is constructed by their community and possibly also by national policies on race. Likewise for most people their religion, which Burchardt, Le Grand & Piachaud don't include in their diagram, is variously constructed by themselves, their local mosque or church, possibly by a national church, and for many religions, also globally.

This concept of levels of social organisation is useful in identifying another aspect of higher education's role in fostering social inclusion. In this age of globalisation – which many social inclusion theorists posit as an important dynamic of exclusion – the level of society one engages with is significant. A person, family, group or community who sees their cultural, social and economic circumstances connected with the international world – who is engaged with the global community – is clearly more empowered than one who does not understand let alone influence the global forces that affect them (O'Connor & Moodie, 2008a).

We may therefore posit a role for higher education in giving people, groups, communities and regions the capacity to have the highest levels of engagement at the local, regional, national and international levels of social organisation. And for that engagement to be at the highest level both conceptually and geographically the university must offer high level coursework and research programs and must be engaged with international research.

Analysts of social inclusion make 3 observations. First, that different strands of disadvantage interlock and are highly interdependent 'so that progress in overcoming one limitation, say, unemployment, can be inhibited by related factors like limited funds, poor health, inadequate training or having a criminal record' (Vinson, 2007). There is considerable evidence that many problems that emerge from adolescence such as disengagement from education and work, substance abuse and getting caught up in the criminal justice system originate from unsuccessful engagement with the early years of schooling, and that this in turn is associated with a variety of personal, family and social difficulties. Most families are able to cope with isolated and brief difficulties, but many families are not able to cope with multiple and recurrent difficulties. These families need access to a range of supports which might include short term financial aid, health, family counselling and behavioural treatment. This suggests that any action that universities take to promote social inclusion should be coordinated with providers of other educational, health and social services.

Secondly, disadvantage is remarkably concentrated geographically (Baum, 2008). Vinson analysed the performance of each Australian postcode by 25 indicators of social, health and economic disadvantage. He found that just 1.5% of localities are ranked in the top 5% of each indicator of disadvantage, which was from 6 to 7 times more than the average (Vinson, 2007). This fits in well with universities regional role, since many universities either have a campus near a region of high disadvantage, or may establish a partnership with such a region.

A third observation fundamental to social inclusion is that it involves social relations which are essentially dynamic (Burchardt, Le Grand & Piachaud, 2007b: 31). Thus social exclusion is not a static status as some have understood poverty, class and indeed socio economic status. The dynamism of social inclusion offers the possibility of a causal mechanism missing in the initial application of *A fair chance for all*, or at least provides a site for universities' social justice action.

The final part of this submission considers the implications of this analysis for equity policy in Australian higher education.

4 Implications for higher equity policy

From the foregoing one may draw 7 implications for higher education equity policy: the importance of locality, the relation between nation building and regional development, the need to coordinate programs for each locality across agencies and portfolios, the importance of curriculum, the need to maintain national targets and for a new indicator of socio economic status, national coordination, and the role of targeted funding.

4.1 The importance of locality

The first implication of an emphasis on social inclusion is that universities' work with their local communities is important and should be strengthened. Many Australian universities are located in areas of high relative disadvantage. Likewise, some of the most prestigious and best funded US universities are located in the most disadvantaged areas of the US, mostly in the inner urban areas of large cities. These universities have obvious opportunities to contribute to the development of their immediate localities, as many do. Some universities which do not have a campus located in a disadvantaged region are forming partnerships with a disadvantaged community somewhat distant from their main campus and this should be encouraged. Universities should seek to develop their communities' engagement with social life at the highest level. Furthermore, universities should develop their communities' engagement not only with regional and national but also with international levels of social organisation.

Higher education's role should be to give people, groups, communities and regions the capacity to have the highest level of engagement at the local, regional, national and international levels of social organisation. For that engagement to be at the highest level both conceptually and geographically the university must offer high level coursework and research programs and must be engaged with international research.

4.2 The relation between nation building and regional development

While higher education institutions' social inclusion interventions should be mainly local, they should be within a national policy of nation building and regional development to give institutions' interventions some coherence and to maximise their contribution to other important social and economic goals. It is important for Australia's long term future that development is balanced throughout the continent, and not concentrated in the cities and regions that already enjoy natural advantages. While there is at least 1 higher education campus in each major city and in many regions, there are still important regions without a higher education campus. This is an important issue for social inclusion since as Birrell & Edwards' (2007) figures show, while 41% of 18 to 20 year olds in capital cities aren't engaged in any form of education, 61% of young people outside capital cities aren't participating in education.

Yet the solution cannot be to establish a university campus in every region and population centre. The former Universities Commission held that a catchment area of from 100,000 to 200,000 people was needed to support a university campus. While one may quibble with the precise thresholds, it is clear that a campus with a catchment area of much less than 100,000 can't support the range and quality of programs that students expect. Since Tafe institutes are

much more widely dispersed throughout the regions than more expensive university campuses, much of the opportunities for regional participation in higher education should be through Tafe institutes offering associate and perhaps bachelor degrees under the auspices of a collaborating university. Such Tafe-university partnerships should result in the development of Tafe institutes as dual sector tertiary education institutes that offer both vocational and higher education. The Australian and State governments will need to collaborate strongly and coordinate Tafe and higher education institutions to ensure that all Australians have a reasonable opportunity of participating in higher education.

Some universities have established small higher education campuses in towns of 50,000 or fewer people, some of which also have a Tafe institute. Some regional university campuses are co-located with Tafe campuses, and the consortium of universities with regional operations proposes more effective partnerships with Tafe institutes. But university co-locations and partnerships with Tafe institutes still maintain separate teaching staff, administrations and facilities which make them less efficient than combined operations. Again, Australian and State governments will need to collaborate and coordinate their institutions to establish one dual sector institution and campus in these regions which warrant one but not two separate public tertiary education providers.

Therefore government intervention is needed to ensure higher education's contribution to balanced national development and the full inclusion of people in all regions in higher education and its related benefits of employment and social engagement. This Government intervention should take 2 forms: coordination and targeted funding. These are elaborated at the end of this section.

4.3 Coordination across agencies and portfolios

The interconnectedness of economic, social, educational and other aspects of disadvantage suggests that social inclusion policy consider interventions across portfolios or government departments and agencies: providing 'joined-up' services for local communities is a major concern of social inclusion. Therefore any action by a university should be coordinated with complementary action by other agencies. An obvious candidate is vocational education, since not all people wish to undertake their tertiary study in universities.

Universities should also develop their social inclusion policies with adult and community education. Many of the excluded have poor backgrounds in and experiences of formal education. They are therefore very poorly prepared and unreceptive if not antagonistic to formal education. People with poor or unsuccessful experiences of school education often return to formal education through hobby and recreation classes which lead to literacy and study skills classes and thence to advanced education. Many providers of adult and community education are recognised as such, but others have other primary roles, as Golding (2006) has shown of men's sheds and of voluntary fire, emergency services and landcare organisations.

Universities also need to collaborate with the lower levels of secondary education and the upper levels of primary education, since this is where the aspiration and foundation for tertiary education is formed. The examples of US universities' early outreach programs described earlier in this paper offer useful ideas for what may be developed in Australia. Griffith University Professor Ross Homel and colleagues' (2006a) pathways to prevention establishes a multi-agency intervention and support program for primary schools in Inala, a highly disadvantaged suburb near Griffith's Brisbane campuses. The success of this program suggests that it should be expanded, perhaps by broadening the full service schools program supported by the Australian Government in 1999 and 2000 (DEEWR, 2008).

Case study: pathways to prevention project

Pathways to prevention is a demonstration project developed jointly by Griffith University and Mission Australia to implement an early intervention program in the most disadvantaged urban area in Queensland. The project is unusual because it is built on a university-community agency partnership supported by the Queensland Government but funded primarily from corporate and philanthropic sources and from the Australian Research Council. Despite considerable challenges, the project has achieved many of its objectives.

Pathways to prevention focuses on children's transition to school. It integrates family support with preschool and school-based programs in the 7 Inala state schools within a community development framework. The target population is children aged 4 to 6 years in the area, and their families and ethnic communities.

The purpose of the pre-school intervention program is to enhance children's communication and social skills to provide a foundation for school success and develop positive behaviours and interpersonal relationships. These activities are conducted during regular preschool sessions by specialist staff. The family independence program helps caregivers and families to create a stimulating home environment that is harmonious and conducive to child development, through the provision of culturally sensitive services. Families are able to access multilayered levels of support and to combine different programs according to their level of need or readiness to participate.

The quantitative outcomes for children after 1 year of involvement in the project provide some of the strongest evidence that multilayered interventions in school and community settings can influence developmental pathways. Although caution is required given the quasi-experimental nature of the research design, the outcomes of the project to date suggest intervention effects that are in line with or exceed international norms.

Further information: http://www.griffith.edu.au/__data/assets/pdf_file/0016/13372/trends.pdf

4.4 Importance of curriculum

The engagement and inclusion of people previously excluded from higher education will require substantial changes to the curriculum. Higher education programs will have to be offered in ways that attract and retain students who previously had not considered higher education as a possible or even desirable path. This may be achieved by relating education and work in new ways, or at least in adapting to current circumstances earlier ways of integrating education and work in what used to be known as sandwich courses. Sandwich courses intersperse blocks of work and intensive study in various combinations convenient to employers, educational institutions and students. They are most familiar as apprenticeships, but they were popular in Australia and UK higher education from the 1950s (Topping, 1975), mostly in institutes of technology. Griffith University currently offers 2 sandwich type programs, both at its Logan campus which serves one of the most disadvantaged communities in Queensland: the bachelor of commerce (professional) and the bachelor of information technology @ work.

Case study: bachelor of commerce (professional)

The bachelor of commerce (professional) starts with a 1 week orientation when employers come on campus to introduce students to their industry and their expectations of graduates. Students spend their first year studying full time in 3 semesters. The first year introduces students to the wide range of business disciplines necessary to understand the interdisciplinary nature of commercial analysis and problem solving. Interspersed with these studies is a range of more advanced studies from students' major of choice which aligns with the internship they will pursue. In their second and third years students work in a financial services firm while studying part time over 3 semesters. The internship provides students industry experience and a salary while studying.

More information:

http://www17.griffith.edu.au/cis/p_cat/admission.asp?ProgCode=1336&type=overview

Case study: bachelor of information technology @ work

Students start the first year of their bachelor of information technology @ work studying full time in 3 semesters. They then work in industry full time for the next 3 years while studying part time on line. Students' employers release them for 45 days during each summer to complete an intensive summer semester. Students enrolled in the BIT @ Work can apply their learning in industry during the standard semester and return focused and enthusiastic during the summer semester. The program enables students to focus on their studies during the summer semester without major distractions from work and to relate their learning to their practice. The fourth year includes enrolment in the industry affiliates program for 0.25 efts1. While this subject is mainly industry placement, it demands participation on campus with other students in the cohort and course conveners and assessors.

More information:

http://www17.griffith.edu.au/cis/p_cat/admission.asp?ProgCode=1250&type=overview

Students are attracted to these programs because they give them early involvement with paid semi professional work related to their studies and career goals. Employers benefit from employing earlier than they otherwise would highly able and motivated students. They shape students' education directly as well as indirectly through membership of program boards, and have much less risk in their graduate recruitment since they have observed potential recruits over a prolonged period.

4.5 National targets

The Australian Government should maintain targets for proportionate participation of each segment of society in each segment and level of education. So the university sector as a whole must aim for proportionate participation by class, race, sex, ethnicity, location, and for people with disabilities and those who have other special characteristics that may restrict their social engagement. But a social inclusion policy would not apply these targets *mutatis mutandi* to each university, as some national policies do. Each university campus will need to tailor a social inclusion policy and programs to their specific locality.

In 1998 in a major report for the Commonwealth, Western, McMillan & Durrington (1998) recommended that the postcode method of identifying socio economic status be replaced by an index based on parents' education and/or highest level of education (see also McMillan & Western, 2000). The Australian Government did not implement that recommendation. The arguments for replacing postcodes with a more sensitive indicator of socio economic status are even stronger now than they were a decade ago. The postcode method isn't sufficiently accurate to apply to groups of fewer than about 200 students and it does not help identify causal factors or processes. Griffith therefore supports James, Bexley & Maxwell's recommendation (2008: 7) that a new measure of socio economic status be developed for higher education based on parents' highest level of education.

4.6 *National coordination*

Each higher education institution should develop a social inclusion policy and programs for intervention. Each policy should include milestones, targets and an evaluation process. But the aggregation of each university campus' social inclusion policy and programs will not amount to a comprehensive social inclusion program that will meet national targets of proportionate participation. Australia will 3 tools or mechanisms to establish a national social inclusion program in higher education: a national directory of social inclusion interventions, an Australian atlas of social inclusion interventions, and monitoring of targets.

The **national directory of social inclusion interventions** would record for each intervention the underrepresented groups it serves and the targets that have been set. Simply publishing the directory will show the gaps in provision and will stimulate institutions to coordinate their programs and fill gaps. Aggregating each intervention's targets should show whether they are sufficiently ambitious and comprehensive to meet national targets, and it may be necessary for the Government to encourage institutions to set more ambitious targets or establish broader programs, perhaps by offering additional funding for institution which meet their targets.

A second part of a national coordination of social inclusion could be an **Australian atlas of social inclusion interventions**. By comparing the atlas of social inclusion interventions with Vinson's (2007) table of Australian postcodes by level of disadvantage it would be possible to identify disadvantaged regions that are not currently served by higher education institutions. As this submission has already argued, the solution to geographic gaps in social inclusion interventions cannot be to establish a university campus in every region and population centre. Australian and State governments will need to collaborate with each other and coordinate their institutions to establish an effective but also efficient geographic provision of higher education opportunities.

A third part of national coordination of social inclusion should be a **monitoring of targets**, both of each intervention and of the national targets for proportionate participation of each segment of society in each segment and level of education. Performance on these targets should inform the allocation of targeted funding for social inclusion.

4.7 Role of targeted funding

The Australian Government said in *A fair chance for all* that –

Underpinning the Government’s equity strategy is the understanding that higher education institutions are publicly funded, so they have a clear responsibility to provide opportunities for all sections of the Australian community.

(DEET, 1990: 8)

While Australian universities are still publicly funded, universities’ financial circumstances in 2008 are entirely different to those of almost 20 years ago. Australian Governments provided only 41% of universities’ funds in 2006, much less than the 63% provided in 1990. (Most of the difference is in a substantial increase in funds from international student fees (15%), and from consultancy and contracts (5%) and other fees and charges (3.7%) which are included in ‘Other’ in table 3.)

Table 3: major sources of universities’ funds, 1990 and 2007

Source	1990		2006	
	\$’000	% of total	\$’000	% of total
Australian Government grants	3,081,328	63	6,551,626	41
State government	241,666	5	617,460	4
Heecs deferred and upfront	571,237	12	2,222,231	14
Other domestic student fees	267,468	6	896,056	6
International student fees	138,833	3	2,375,362	15
Investment income	256,269	5	698,624	4
Donations and bequests	111,969	2	159,260	1
Other	186,405	4	2,392,402	15
Total	4,855,175	100	15,913,021	100

Sources: DEET (1991) Table 56. Higher education institution income (\$’000) by source, State and institution; DEST (2007) Table 1. Adjusted statement of financial performance for each HEP, 2006 (\$’000).

The Australian Government established the precursors to the institutional (research) grants scheme and the research infrastructure block grants scheme in 1991 to distribute research funds to institutions by institutional performance rather than by status following the dismantling of the binary divide. In 2001 the Australian Government introduced the research training scheme to allocate by institutional performance very substantial funds to support research training. From 2006 the Australian Government has allocated a substantial learning and teaching performance fund. In contrast the Australian Government allocates rather modest funds for institutional performance in equity.

Table 4 shows the amounts the Australian Government allocated for institutional performance in the 2008-09 budget. It will be noted that 91% of the contestable institutional performance funds are for research and research training, 7.5% are allocated for learning and teaching and only 1.5% are allocated for institutional performance in equity. Equity is no more or less a core institutional activity than research and teaching, and it is very expensive since it is labour intensive and requires the provision of additional resources to targeted students.

Table 4: amount and proportion of funds allocated for institutional performance by program, budget estimate 2008-09

Program	(\$m)	%
Research training scheme	592	
Institutional (research) grants scheme	311	
Research infrastructure block grants	210	
<i>Sub total research and research training</i>	<i>1,113</i>	<i>91.0</i>
<i>Learning and teaching performance fund</i>	<i>92</i>	<i>7.5</i>
<i>Equity programs</i>	<i>18</i>	<i>1.5</i>
Total	1,223	100.0

Sources: DISSR (2008) Table 4. Estimated cost for programs and incentives providing support for science and innovation through special appropriations and other measures; DEEWR (2008b) Table 2.3: Total resources for outcome 3.

Extensive targeted funds will be needed to improve the static equity performance over the last 17 years. The targeted social inclusion funds should be allocated on 2 grounds: to fill gaps and to reward performance. A review of the national directory of social inclusion interventions proposed earlier in this paper will disclose the underrepresented groups which are not adequately served by current interventions and to which additional targeted funding should be directed to fill the observed gaps.

A review of the atlas of social inclusion interventions proposed earlier will disclose which regions should be targeted for additional funding to fill the geographic gaps in provision. Some dual sector tertiary education institutes will require targeted funding in addition to the standard funding and fees they attract from their vocational and higher education load. The regional loading currently provided by the Australian Government is indiscriminate in applying to all university campuses that fit within its formula regardless of the viability of the campus, yet at the same time it is inconsistent in providing a regional loading to the University of Wollongong but not to the University of Newcastle nor indeed Griffith University's Gold Coast campus. The regional loading should be restructured as targeted funding to universities and to dual sector tertiary education institutes to maintain viable and efficient campuses in modest population centres.

The second part of targeted social inclusion funding would be for institutions that achieved the milestones they set in their policy, achieved their targets and achieved satisfactory evaluation of their social inclusion interventions. This would follow the third part of national coordination of social inclusion proposed in the previous section of monitoring targets for each intervention.

5 Recapitulation and conclusion¹

Recent research covering 7 countries concluded that Australia was unusual in its lack of success in improving access to higher education for disadvantaged social groups:

In only one of the countries on which we report, Australia, has there been no reduction in social group inequalities – in this instance over a period of almost two decades.

(Clancy & Goastellec, 2007: 151)

As noted in the discussion paper, recent Australian research has confirmed that participation of people from low SES backgrounds has remained virtually unchanged for 15 years despite the overall expansion of access to higher education in that period.

Possible reasons for the lack of success of the government policy include:

- an over-emphasis on increasing access by expanding the system, when studies have subsequently found that expansion of higher education reduces inequality only when participation of the advantaged group reaches saturation, but not before; and
- the lack of strong causal explanation or at least hypothesis for under-representation and interventions grounded in evidence.

Research suggests that inequity in higher education originates 15 years earlier. A lower level of achievement in school by pupils from low SES backgrounds is a precursor to lower educational aspirations and thence lower school completion rates, which in turn is a major factor underlying the low participation rate in higher education (James, Bexley & Maxwell, 2008: 10).

While the Dawkins White Paper of 1988 foreshadowed the crucial role to be played by schools in enhancing access to higher education for disadvantaged groups, there has been no national policy or program targeting early outreach programs. Some individual institutions, however, have independently introduced early school intervention programs. GEAR UP – Gaining Early Awareness and Readiness for Undergraduate Programs – was introduced in the US in 1999 by the Clinton administration. It allocates grants of 6 years to states and partnerships to provide services at middle and high schools in depressed areas. Programs serve an entire cohort of students beginning no later than seventh grade and follow the cohort through high school (U.S. Department of Education, 2008).

In 2001 the Blair Government introduced Excellence Challenge, which has now been amalgamated into Aimhigher, to widen participation in higher education by raising awareness, aspirations and attainment of young people from under-represented groups (HERO Ltd, no date; DfES, 2003: 13).

Higher education has not yet been directly engaged in social inclusion programs in Australia or overseas beyond providing the analytic foundation and evaluation services through research centres. However, the principles of levels of social engagement at levels of social organisation argue for universities' direct involvement in developing policies and delivering programs. Analysts of social inclusion make three observations.

¹ This summary is based on IRU Australia's draft submission to the review on opportunities to participate in higher education.

- 1 Different strands of disadvantage interlock and are highly interdependent ‘so that progress in overcoming one limitation, say, unemployment, can be inhibited by related factors like limited funds, poor health, inadequate training or having a criminal record’ (Vinson, 2007).
- 2 Disadvantage is remarkably concentrated geographically. Vinson (2007) found that just 1.5 per cent of localities are ranked in the top 5% of each of 25 indicators of social, health and economic disadvantage, which was from 6 to 7 times more than the average.
- 3 Social inclusion involves social relations which are essentially dynamic and hence social exclusion is not a static status and can be changed.

There are 7 key implications for higher education equity policy.

1 The importance of locality The first implication is that universities’ work with their local communities is important and should be strengthened. Many Australian universities are located in areas of high relative disadvantage. Universities which do not have a campus located in a disadvantaged region should be encouraged to form partnerships with disadvantaged communities somewhat distant from their institution which are not already served by a local university.

2 The relation between nation building and regional development While higher education institutions’ social inclusion interventions should be mainly local, they should be within a national policy of nation building and regional development to give institutions’ interventions some coherence and to maximise their contribution to other important social and economic goals. It is important for Australia’s long term future that development is balanced throughout the continent, and not concentrated in the cities and regions that already enjoy natural advantages. While there is at least 1 higher education campus in each major city and in many regions, there are still important regions without a higher education campus. This is an important issue for social inclusion since as Birrell & Edwards’ (2007) figures show, while 41% of 18 to 20 year olds in capital cities aren’t engaged in any form of education, 61% of young people outside capital cities aren’t participating in education.

3 Coordination across agencies and portfolios Governments are increasingly recognising the need for ‘joined-up’ services for local communities if they are to address successfully the interconnectedness of economic, social, educational and other aspects of disadvantage. Similarly, any action by a university to address disadvantage and increase participation in higher education should be coordinated with complementary action by other agencies, in particular: primary and early secondary education providers; vocational education and training providers; and formal and informal adult and community education bodies.

4 Importance of curriculum The engagement and inclusion of people previously excluded from higher education will require substantial changes to the curriculum. Higher education programs will have to be offered in ways that attract and retain students who previously had not considered higher education as a possible or even desirable path. This may be achieved by relating education and work in new ways, or at least in adapting to current circumstances earlier ways of integrating education and work in what used to be known as sandwich courses.

5 National targets The Australian government should set national targets for proportionate participation of each segment of society in each category and level of education. This would require the university sector as a whole to aim for proportionate participation by SES, race, sex,

ethnicity, location and for people with disabilities and other groups with special characteristics. Each university campus, however, will need to tailor a social inclusion policy and programs to suit the specific needs of their locality, and their social inclusion targets will be determined accordingly.

6 National coordination Australia will need a mechanism to identify and fill gaps in the locality-based policies and interventions of each campus, to ensure there is reasonably comprehensive provision both geographically and by underrepresented group, and to monitor performance. There could be 3 parts to national coordination:

- (a) a national directory of social inclusion interventions to show which underrepresented groups are being targeted by each intervention and the targets that have been set, to identify any gap in social inclusion programs for underrepresented groups;
- (b) an Australian atlas of social inclusion interventions to identify any geographic gap in social inclusion programs; and
- (c) a monitoring of targets, both of each intervention and of the national targets for proportionate participation of each segment of society in each segment and level of education. Performance on these targets should inform the allocation of targeted funding for social inclusion.

7 Targeted funding To achieve successful outcomes in increasing participation for disadvantaged Australians in higher education, universities will need to enter into separate long-term partnerships with individual targeted communities and other local service providers. Programs of this nature will be very expensive, as they are labour intensive and require the provision of resources and support at multiple layers and within multiple contexts. They also require a guaranteed commitment of funds over long periods of time.

Under current funding arrangements, the government allocates very modest funds to support institutional performance in equity, being only 1.5% of total funds allocated for institutional performance. Extensive targeted funds will be needed to improve the static performance in higher education participation for disadvantaged Australians experienced over the last 17 years: to fill gaps in current provision and to reward performance in meeting targets.

6 Response to the review's questions

Griffith did not find that the review's questions related well to the text of the discussion paper, and in particular, did not accept the Australian Government's invitation in the review's terms of reference to reconsider established higher education equity policy and practice in the light of the Government's commitment to social inclusion.

Griffith University answers the review's questions in section 3.2 on opportunities to participate in higher education in this way.

8 Should there be a national approach to improving Indigenous and low SES participation and success in higher education?

There should be a national, non-competitive approach to improving Indigenous and low SES participation and success in higher education. This should be based on evidence of meeting targets, which should be set differently to meet each region's specific needs.

9 *If you support a national approach to improving Indigenous and low SES participation and success how do you see it being structured, resourced, monitored and evaluated?*

Each region should develop a proposal which should include milestones, targets and an evaluation process. Continued funding would depend on achievement of the milestones, performance against the targets and the results of the evaluation. National support for diversity and inclusive curricula would contribute to social inclusion as well as to the student experience for those from culturally or educationally underrepresented groups: Indigenous Australian students, students from low SES backgrounds, and students from rural and isolated areas.

10 *What institutional initiatives have proved successful in increasing low SES or Indigenous participation and success? (Please provide information about outcomes as well as activities.)*

Earlier the submission gave these examples of apparently successful early intervention programs: San Diego State University, the Clinton administration's GEAR UP – Gaining Early Awareness and Readiness for Undergraduate Programs; the Blair Government's Excellence Challenge, now Aimhigher; and Griffith University's pathways to prevention program.

Evaluation of Griffith's pathways to prevention program

'Quantitative analysis of the quasi-experimental research design that underpins the child-focused programs shows that participation in the preschool intervention program improved the level of children's communication skill and reduced their level of difficult behaviour, over and above the effect of the regular preschool curriculum. The cost of producing these outcomes compared favourably with remedial behaviour management programs implemented through the Queensland Department of Education.

'Data on the family program show that the project succeeded in engaging many of the most vulnerable families in the area in a range of programs, and case studies, interviews and other data demonstrate a range of positive outcomes for parents and caregivers, and for the children in their care. A consistent theme is how Pathways helped build connectedness within families by promoting attachment between parent and child and by encouraging a greater degree of parental involvement in and understanding of their children's development. Pathways also helped build the connectedness of families to agencies and institutions beyond their ethnic communities, opening up doors to participation in a wider world that held resources that many of the families desperately needed.

'A particularly important finding of the quantitative analyses was that the combined effect of the family independence program and the preschool intervention program on children's behaviour was greater than either program on its own. This indicates that indirect effects on children through improving the family environment can be as great as the effects of programs directed specifically at children. This demonstrates empirically a fundamental assumption of the pathways project.'

(Homel et al, 2006b: vii)

11 *What evidence is available from institutions about the impact on individuals or groups of either failure to gain income support or the inadequacy of income support?*

This is a brief note of some relevant recent research.

James, R, Bexley, E, Devlin, M & Marginson, S (2007) *Australian university student finances 2006: final report of a national survey of students in public universities*. Canberra: Australian Vice-Chancellors' Committee, retrieved on 4 July 2008 from <http://www.universitiesaustralia.edu.au/content.asp?page=/publications/policy/survey/index.htm>. **This found that financial pressures were very real for >50% of respondents and were compounded for equity groups and Indigenous students.**

Long, Michael & Hayden Martin (2001) *Paying their way - a survey of Australian undergraduate university student finances, 2000*. Canberra: Australian Vice-Chancellors' Committee, retrieved on 4 July 2008 from <http://www.universitiesaustralia.edu.au/content.asp?page=/publications/policy/survey/index.htm>. **This identified a 'catch 22': students who meet the stringent means test for the Youth Allowance (Student) need to work long hours to supplement the severely inadequate benefits paid by the Youth Allowance, but this interferes with the full time study that is a condition of eligibility for the Youth Allowance (Student).**

Griffith University's (2004) *Discontinuance study* **found that financial burdens influenced some respondents to leave university.**

McMillan, Julie (2005) *Course change and attrition from higher education*, longitudinal surveys of Australian youth research report 39, Camberwell: Australian Council for Educational Research, http://www.acer.edu.au/documents/LSAY_lsay39.pdf (accessed 4 July 2008). **This found that financial pressures were a reason for course change or discontinuance.**

The Senate Employment, Workplace Relations and Education References Committee report on *Student income support* (June 2005) retrieved on 4 July 2008 from http://www.aph.gov.au/Senate/committee/eet_ctte/completed_inquiries/2004-07/studentincome04/index.htm. **This found that students' financial pressures had negative impacts on their study.**

The Senate Community Affairs References Committee report *A hand up not a hand out: renewing the fight against poverty (Report on poverty and financial hardship)* (2004), retrieved on 4 July 2008 from http://www.aph.gov.au/senate/committee/clac_ctte/completed_inquiries/2002-04/poverty/report/index.htm. **This examined poverty in Australia generally and recommended improved financial support for students in higher education study.**

McInnis, Craig, & Hartley, Robyn (2002) *Managing study and work: the impact of full-time study and paid work on the undergraduate experience in Australian universities*, report of the Evaluations and Investigations Programme of the Department of Education, Science and Training. Canberra: DEST, retrieved on 4 July from http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/managing_study_and_work.htm

Wharton, Barbara (2007?) *Student financial wellness & efficiency of degree programs*, Columbus, Ohio: Ohio State University, retrieved on 4 July 2008 from http://studentaffairs.osu.edu/pdfs/assess_presentation_ACPA_NASPA_07_Section3.pdf. **These slides report results from 5 student surveys and continuing longitudinal tracking which found that students under financial stress were more likely to neglect their study, had lower grade point averages and lower graduation rates.**

Griffith has also found that while work integrated learning has substantial benefits, it can affect disproportionately students who:

- need paid work for financial subsistence;
- find participation more costly for medical or other reasons; or
- are undertaking subjects with high contact hours.

7 References

Arum, Richard, Gamoran, Adam & Shavit, Yossi (2007) More inclusion than diversion: expansion, differentiation, and market structure in higher education, in Shavit, Yossi, Arum, Richard & Gamoran, Adam (eds) (2007) *Stratification in higher education: a comparative study*. Stanford, Ca: Stanford University Press, pp 1-35.

Baum, Scott (2008) *Suburban scars: Australian cities and socio-economic deprivation*, Urban Research Program research paper 15, Brisbane: Griffith University, http://www.griffith.edu.au/centre/urp/urp_publications/research_papers/URP_RP15_Suburban_Scars_BAUM_Body.pdf (accessed 26 February 2008).

Birrell, Bob and Edwards, Daniel (2007) Half of Australian youth aged 18-20 are not in training, University World News, 11 November, http://www.universityworldnews.com/filemgmt_data/files/Birrell%20%26%20Edwards%20Report%20121107.pdf (accessed 1 July 2008).

Burchardt, Tania, Le Grand, Julian & Piachaud, David (2002a) Introduction, in Hills, John, Le Grand, Julian and Piachaud, David (2002) *Understanding social exclusion*, Oxford: Oxford University Press, pages 1-12.

Burchardt, Tania, Le Grand, Julian & Piachaud, David (2002b) Degrees of exclusion: developing a dynamic, multidimensional measure, in Hills, John, Le Grand, Julian and Piachaud, David (2002) *Understanding social exclusion*, Oxford: Oxford University Press, pages 30-61.

Clancy, Patrick & Goastellec, Gaële (2007) Exploring access and equity in higher education: policy and performance in a comparative perspective, *Higher Education Quarterly*, volume 61, no 2, April, pp 136–154.

Commonwealth of Australia (2004) *Higher education report for the 2004-2006 triennium*, http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/higher_education_report_2004_2006_triennium.htm

Commonwealth of Australia (2008a) *Education revolution 2008-09*, ministerial budget statement, Julia Gillard, 13 May, http://www.budget.gov.au/2008-09/content/ministerial_statements/html/index_education.htm (accessed 15 May 2008).

Commonwealth of Australia (2008b) *Review of Australian higher education discussion paper*, Canberra: Department of Education, Employment and Workplace Relations, <http://www.dest.gov.au/HEreview> (accessed 10 June 2008).

Curtis, Polly (2008) Education: Plan for university-primary links, *Guardian*, 2 July, <http://education.guardian.co.uk/higher/news/story/0,,2288400,00.html> (accessed 3 July 2008).

Dawkins, The Hon J S, MP (1988) *Higher education: a policy statement* ('the White Paper') Australian Government Publishing Service, Canberra.

Department of Education, Employment and Workplace Relations (DEEWR) (2008) *Full service schools programme reports*, http://www.dest.gov.au/sectors/school_education/publications_resources/indexes/full_service_schools_programme_reports_index.htm (accessed 13 May 2008).

Department of Education, Science and Training (2005) *Learning and teaching performance fund 2006: administrative information for providers*, http://www.dest.gov.au/sectors/higher_education/policy_issues_reviews/key_issues/learning_teaching/ltpf/2006ltpf.htm#Administrative_information_for_providers_2006

Department of Education, Science and Training (DEST) *Finance 2006 - financial reports of higher education providers*, http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/finance_2006_stats.htm, (accessed 4 June 2008)

Department for Education and Skills (DfES) (2003) *Widening participation in higher education*. Cheshire: DfES. <http://www.dfes.gov.uk/hegateway/uploads/EWPparticipation.pdf>, (Accessed 2 June 2008).

Department of Education, Employment and Workplace Relations (DEEWR) (2008a) *Terms of reference – review of Australian higher education*, http://www.dest.gov.au/sectors/higher_education/policy_issues_reviews/reviews/highered_review/default.htm (accessed 28 April 2008).

Department of Education, Employment and Workplace Relations (DEEWR) (2008b) *DEEWR budget statements – outcomes & performance – outcome 3*, <http://www.deewr.gov.au/NR/rdonlyres/F092157C-558E-445C-976F-34C98243C34D/0/06200809PBSDEEWRoutcome3.pdf>, (accessed 4 June 2008)

Department of Employment, Education and Training, National Board of Employment, Education and Training (1990) *A fair chance for all: national and institutional planning for equity in higher education*, a discussion paper, AGPS, Canberra, http://www.dest.gov.au/archive/nbeet/publications/pdf/90_06.pdf (retrieved 2 June 2008.)

Department of Employment, Education and Training (DEET) (1991) *Selected higher education statistics*, Canberra: Australian Government Publishing Service.

Department of Innovation, Industry, Science and Research (DIISR) (2008) *The Australian Government's 2008-09 science and innovation budget tables*, <http://www.innovation.gov.au/Section/AboutDIISR/Documents/Budget0809Scienceandinnovation.pdf> (accessed 4 June 2008)

Golding, Barry (2006) A profile of men's sheds in Australia: patterns, purposes, profiles and experiences of participants: some implications for ACE and VET about engaging older men, 9th Australian Vocational Education and Training Research Association Conference, Wollongong.

Gough, Jamie, Eisenschitz, Aram & McCulloch, Andrew (2006) *Spaces of social exclusion*, Abingdon: Routledge.

Hebel, Sarah (2007a) In California, an unusual partnership expands the college track, *Chronicle of Higher Education*, 6 July, volume 53, issue 44, page A16, <http://chronicle.com/weekly/v53/i44/44a01601.htm> (accessed 13 May 2008).

Hebel, Sarah (2007b) San Diego State U. runs 3 schools to improve a neighborhood — and itself, *The Chronicle of Higher Education*, 6 July, volume 53, issue 44, page A18, <http://chronicle.com/weekly/v53/i44/44a01801.htm> (accessed 13 May 2008).

HERO Ltd (no date) *What is Aimhigher?* http://www.aimhigher.ac.uk/sites/practitioner/programme_information/about_aimhigher/what_is_aimhigher_.cfm (accessed 13 May 2008).

Homel, Ross, Freiberg, Kate, Lamb, Cherie, Leech, Marie, Batchelor, Sam, Carr, Angela, Hay, Ian, Teague, Rosie & Elias, Gordon (2006a) The Pathways to Prevention project: doing developmental prevention in a disadvantaged community, *Trends & issues in crime and criminal justice series no. 323*, August, Australian Institute of Criminology, http://www.griffith.edu.au/__data/assets/pdf_file/0016/13372/trends.pdf (accessed 3 February 2008).

Homel, Ross, Freiberg, Kate, Lamb, Cherie, Leech, Marie, Carr, Angela, Hampshire, Anne, Hay, Ian, Elias, Gordon, Manning, Matthew, Teague, Rosie & Batchelor, Sam (2006b) *The Pathways to Prevention Project: the first five years, 1999-2004*. Sydney: Mission Australia and the Key Centre for Ethics, Law, Justice & Governance, Griffith University, http://www.griffith.edu.au/__data/assets/pdf_file/0017/13382/pathways-final.pdf (accessed 2 July 2008).

James, Richard, Baldwin, Gabrielle, Coates, Hamish, Krause, Kerri-Lee & McInnis, Craig (2004) *Analysis of equity groups in higher education 1991-2002*, http://www.detya.gov.au/highered/equity/documents/equity_report.pdf

James, Richard, Bexley, Emmaline & Maxwell, Lucy (2008) *Participation and equity. A review of the participation in higher education of people from low socioeconomic backgrounds and Indigenous people*, Canberra: Universities Australia, <http://www.universitiesaustralia.edu.au/content.asp?page=/publications/policy/equity/index.htm> (accessed 13 May 2008).

Karmel, Peter (1989) Reflections on a revolution. Australian higher education in 1989. *AVCC papers no 1*, Canberra: Australian Vice-Chancellors' Committee.

King, Conor (2008) Working out unemployment, *Campus Review*, volume 18, number 3 (22 January), p 7.

Lucas, Samuel R (2001) Effectively maintained inequality: education transitions, track mobility and social background effects. *American Journal of Sociology*, 106, 1642-90.

Marks, Gary N & McMillan, Julie (2007) Australia: changes in socioeconomic inequalities in university participation, in Shavit, Yossi, Arum, Richard and Gamoran, Adam (eds) (2007) *Stratification in higher education: a comparative study*. Stanford, Ca: Stanford University Press, pp 351-73.

Martin, L M (1994) *Equity and general performance indicators in higher education*, volume 1. Equity indicators. Canberra: Australian Government Publishing Service.

McMillan, Julie & Western, John (2000) Measurement of the socio-economic status of Australian higher education students, *Higher Education*, **39**: 223–248.

O'Connor, Ian and Moodie, Gavin (2008a) Social inclusion: a watershed in equity, *Campus Review* volume 18 number 8 (26 February), pages 10-11.

O'Connor, Ian & Moodie, Gavin (2008b) Social inclusion for higher education, *University World News*, 6 April, retrieved on 28 May 2008 from <http://www.universityworldnews.com/article.php?story=2008040408314747>.

Raferty, Adrian E & Hout, Michael (1993) Maximally maintained inequality – expansion, reform, and opportunity in Irish education, 1921-75. *Sociology of Education*, 66, 41-62.

San Diego State University Division of University Relations and Development (no date) Community service, *San Diego State University significant rankings and distinctions*, <http://advancement.sdsu.edu/marcomm/news/sdsufacts.html> (accessed 13 May 2008).

Sparkes, Jo & Glennerster, Howard (2002) Preventing social exclusion: education's contribution, in Hills, John, Le Grand, Julian and Piachaud, David (2002) *Understanding social exclusion*, Oxford: Oxford University Press, pages 178-201.

Topping, J (1975) Sandwich courses, *Physics Education*, May, pp 141-3.

Trow, Martin (1972) The expansion and transformation of higher education, *International Review of Education*, volume 18 number 1, pp 61-84.

U.S. Department of Education (2008) *Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP)*, <http://www.ed.gov/programs/gearup/index.html> (accessed 13 May 2008).

Venezia, Andrea & Rainwater, Terese (2007) Early outreach, in State Higher Education Executive Officers (SHEEO) (2007) *More student success: a systemic solution*, <http://www.sheeo.org/k16/studsucc2.pdf> (accessed 9 May 2008), pp 13-35.

Vinson, Tony (2007) Dropping off the edge: the distribution of disadvantage in Australia, speech at Parliament House, Canberra, 28 February, <http://www.australiandisadvantage.org.au/index.html> (accessed 2 February 2008).

Western, J, McMillan, J & Durrington, D (1998) *Differential access to higher education: the measurement of socio-economic status, rurality and isolation*, Canberra: AusInfo.