



NCSEHE

National Centre for Student
Equity in Higher Education



Curtin University

SUBMISSION TO THE INDEPENDENT REVIEW INTO REGIONAL, RURAL AND REMOTE EDUCATION

National Centre for Student Equity in Higher Education

Contents

About the National Centre for Student Equity in Higher Education	3
Introduction.....	4
Regional, Rural and Remote Participation in Higher Education	5
Motivations.....	8
Family Background.....	9
Community	10
Schools	11
Barriers.....	12
Distance	12
Student Income Support.....	13
Knowledge of University Access and Support Systems	14
Summary of Recommendations	16
Case Studies	17
References	23
Appendix A: Regional, Rural and Remote Case Studies	28

About the National Centre for Student Equity in Higher Education

The Australian Government Department of Education and Training (DET) established the National Centre for Student Equity in Higher Education (NCSEHE), currently based at Curtin University, to inform public policy design, policy implementation and institutional practice in order to improve higher education participation and success for marginalised and disadvantaged people.

In Australia and internationally, the NCSEHE acts as a conduit for discussion and research on issues affecting student equity in higher education policy, practice and analysis. In keeping with its purpose, the NCSEHE attempts to connect student equity policy with the activities of higher education institutions and national equity outcomes, through its input into comparative assessment of institutional strategies, systemic assessments of policy achievements and assessments of national policymaking in view of this evidence. As part of this mission, the NCSEHE strives to 'close the gap' between equity policy, research and practice, conducting activities through three core programs:

- **Equity Policy and Program Evaluation (Evaluation Program)** – providing leadership and support in developing a national approach and resources to evaluate the impact of initiatives to increase participation of people from low socio-economic status (low SES) backgrounds and other equity groups in higher education.
- **Equity Policy and Planning Research (Research Program)** – furthering equity policy and planning in Australia, sharing knowledge and capabilities developed in Australia, and providing evidence on the impact of policy on equity outcomes in the system.
- **Student Equity Data and Analysis (Data and Analysis Program)** – providing analysis and availability of national datasets on student equity in higher education.

Introduction

This response from the NCSEHE to the *Independent Review into Regional, Rural and Remote Education* (“the Review”) discussion paper (Halsey, 2017), focuses on the challenge of increasing access and participation to higher education among regional, rural and remote students. This is in line with the NCSEHE’s mission, and focus on equity groups in Australian higher education:

- Students from Socioeconomically Disadvantaged Backgrounds (low SES students);
- Students with Disability;
- Indigenous Students;
- Women in Non-Traditional Areas (WINTA);
- Students from Regional and Remote Areas; and
- Students from Non-English Speaking Backgrounds (NESB Students).

Around 50% of domestic undergraduates can be classified into at least one equity categories with many falling into two or more groups (Pitman et al., 2016, pp. 32-33).

Equity reporting revolves around these definitions for access (equity proportion of entering or new enrolments), participation (equity proportion of total domestic undergraduates or all students) and outcomes (equity proportion of students graduating from the system to enter employment or further study). Measures to address the underrepresentation have been funded by the DET, primarily through the Higher Education Participation and Partnerships Program (HEPPP).

These policies are now subject to a major Australian Government review, *The Review of Equity Groups*, and a number of related projects, including the just concluded *HEPPP Review* by ACIL Allen Consulting (ACIL Allen Consulting, 2017) which proposed a series of research projects and policy measures designed to improve performance and accountability in the design and delivery of university outreach and retention programs, including those in regional, rural and remote areas.

Students from regional, rural and remote areas find access and participation in higher education to be more challenging, due to a range of factors classifiable into two broad streams: **Motivations** and **Barriers** (Russell-Bennett et al., 2016). **Motivations** relate to those factors which influence the decision to participation. **Barriers** describe the factors associated with participation itself.

In this submission to the Review, we identify and discuss these key issues. As an indication of current policy in Australia, we also provide a taxonomy of HEPPP and university-funded responses to regional access to higher education, in the *Case Studies* section, with a full listing of these in *Appendix A: Regional, Rural and Remote Case Studies*.

Regional, Rural and Remote Participation in Higher Education

The retention, success and completion rates of equity students, including regional, rural and remote students, are important indicators in ensuring equitable access to education and employment markets (Koshy; 2016b; Harvey, Burnheim & Brett, 2016). In recent years, equity participation has improved with the full introduction of the Demand Driven Funding System (DDFS) in 2012 which increased student numbers, and equity student numbers disproportionately, and the development of the HEPPP, which provided in excess of \$1 billion in funding to universities for outreach and retention programs for low SES students.

As Table 1 shows, undergraduate domestic student enrolments increased by 34.7% between 2008 and 2015 – rising from 532,527 to 717,195. However, all equity groups excluding remote and WINTA saw growth proximate to or greater than this expansion, with low SES student numbers increasing by 50.4%, with enrolments by Students with Disability (88.6%) and Indigenous students (72.1%) increasing at considerably faster rates. Growth in participation since 2008 among regional (33.1%) and remote (21.5%) students has under-performed those of other equity groups and the system in total.

Table 1: Equity Group Higher Education Participation, 2008 to 2015,
Undergraduates, Various Years and Growth Rate from 2008

	2008	2010	2012	2015	Growth (08-14) % ¹
All Students	532,527	580,372	634,434	717,195	34.7%
Low SES	86,581	96,706	109,788	130,246	50.4%
Students with Disability	23,447	28,057	33,220	44,210	88.6%
Indigenous	6,820	7,943	9,005	11,739	72.1%
Women in Non-Traditional Areas (WINTA) ¹	103,120	107,959	114,382	125,241	21.5%
Regional	101,339	110,646	121,476	134,847	33.1%
Remote	5,240	5,532	5,804	6,365	21.5%
NESB	17,222	18,227	21,289	26,647	54.7%

Source: Koshy (2016a).

Note: 1. Growth rates are calculated from a base year of 2008.

Cardak et al. (2017) identify that during recent years, issues of lower regional and remote participation growth revolve around the complex mix of motivations and barriers which interact to inhibit entry into higher education.

An example of this complexity is the measurement of regional and remote status itself, which is based on the ABS regional classification of the postcode of a student's current enrolling address. Cardak et al. (2017) observe that the tendency for regional and remote students to take a 'gap

year' so they could meet the 'independent living' criteria for AUSTUDY support affects the reporting of these numbers. Generally, the impact of this trend has been to 'reduce' regional and remote student numbers where they enrol from a metropolitan address after a gap year.

The Australian Government Department of Education and Training (DET) is currently revising its definition of regional and remote status – specifically, the use of 'enrolling' rather than 'current' addresses – to mitigate this issue, with data to be released in the second half of 2017. This adjustment to the reported statistics on regional and remote status is expected to follow Cardak et al. (2017) in showing an increase in the number of students from regional, rural and remote areas actually attending higher education.

Once they are accepted into university, students from regional, rural and remote areas face a series of barriers in relation to course completion.

An analysis of the starting cohorts in 2005-2006 by DET reveals a wide distribution in completion patterns for domestic undergraduates (Table 2). These data show a negligible shift in nine year completion rates between 2005 and 2006 of 73.6% to 73.5% for all university students. However, the study highlights reduced outcomes for equity groups, including for the 2005 cohort, including for Regional (69.8 per cent) and Remote (59.5 per cent) students. These results are reflected in NCSEHE-funded reports by Lim (2014) and Edwards and McMillan (2014). Critically, Lim (2014) showed that regional status is an indicator of non-completion across the SES and school achievement. Low, median and high regional achievers were all significantly less likely to complete, along with low, median and high SES regional students.

What Table 2 does not show is that a key underlying reasons for the divergence in outcomes between the general population and equity students is that of compounding disadvantage. Students from regional, rural and remote areas are over-represented among part-time, external and low ATAR students, all groups with observable risks for non-completion in the cohort study.

Recent work by Pitman and Koshy (2015), in their development of the *Equity Performance Framework* for Australia emphasises the importance of defining regional, rural and remote disadvantage over the educational life course of students in comparison with the general student population. Previous submissions by the NSEHE to the Higher Education Standards Panel (HESP) (NCSEHE, 2016a) and Productivity Commission (2016b) discuss possible extensions to current equity collections to provide a greater understanding of disadvantage and educational access in Australia. Policy Initiatives by DET, including the current *Review of Equity Groups* and the proposed 2017-18 projects in the National Priorities Pool (NPP), including *An Australian Higher Education Student Equity Ranking*, provide an opportunity to align ongoing strategic initiatives in

the equity space with the requirements of ensuring improved access, participation and completion rates among students from regional, rural and remote areas.

Table 2: Completion Rates – Cohort Analysis: 2005-2014 and 2006-2014 Cohorts, Total Domestic Undergraduates and Equity Groups, Completion within Nine Years.

Domestic Undergraduate Groups	Rate of Completion 2005	Rate of Completion 2006
Total domestic completions	73.6%	73.5%
Full time students	78.8%	78.3%
Part time students	49.2%	49.0%
Internal students	76.6%	76.3%
Multi-modal students	70.6%	70.1%
External students	46.6%	46.3%
High SES students	77.7%	77.8%
Medium SES students	72.6%	72.3%
Low SES students	68.9%	67.9%
Indigenous students	46.7%	47.3%
Non-Indigenous students	73.9%	73.9%
Metropolitan students	75.0%	74.7%
Regional students	69.8%	69.0%
Remote students	59.5%	60.1%
NESB students	78.7%	78.3%
English speaking background	73.4%	73.3%
Secondary education admission	78.7%	78.8%
Other basis of admission	69.4%	68.6%
19 and under	80.3%	80.0%
20-24	70.3%	69.3%
25 and older	58.5%	58.1%

Source: Australian Government Department of Education and Training (2017).

Recommendation 1: That DET enhance its collection and reporting of access, participation and graduation from universities by students from regional, rural and remote education in view of current work on equity reporting in higher education. This may include a separate annual report for progress by these students. This work can be undertaken in conjunction with current work being funded through the National Priorities Pool.

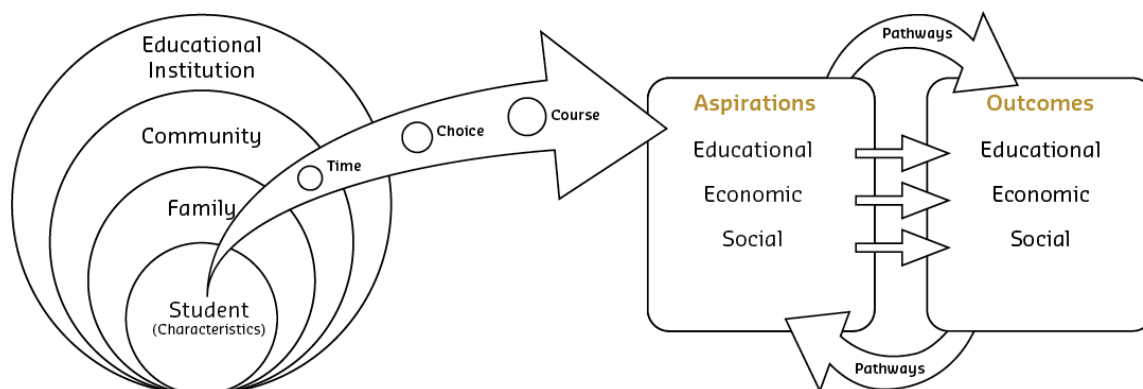
Motivations

An assessment of the higher education participation necessarily begins with the motivations of students which shape overall aspiration. There are many social and cultural factors shaping such aspirations of regional students seeking access to university. These include: family background, community factors and the impact of schools (Bowden & Doughney, 2010; Fleming & Grace, 2014; Jardine, 2012; Kintrea, St Clair, & Houston, 2015; McInerney & King, 2013). At a social level, such major influences are shaped in localised networks and values (Cooper, Baglin, & Strathdee, 2017). This is described by James (2001) as the ‘three way intersection of family socio-economic background, the characteristics of the [...] rural context in which people live, and the physical distance from campuses’ (p. 469). The pathways to scholarly achievement are in turn linked to a perceived lack of social and/or cultural capital which forms more complex social, institutional and systemic barriers (Armstrong & Cairnduff, 2012; James et al., 2008; Dalley-Trim & Alloway, 2010; Gemici et al., 2014a; Sellar & Gale, 2011; Sellar, Gale, & Parker, 2011).

It is important to note that along with the influence of capital and institutional structures, expectations of regional students’ capabilities and the discourse in which these expectations are raised can have significant impacts on regional students’ motivations for higher education study. Burke et al. (2016) note that ‘capability’ carries multiple and contested meanings and there has been little attention afforded to studying the problematic way that judgements of capability are made” and that “these judgements often perpetuate social and cultural inequalities in [Higher Education]” (p. 12). Further to this point, Gale and Parker (2015) contend that dominant perceptions of cultural capital act to reproduce expectations of low individual motivation, and neglect to consider “how cultural groups pursue futures that are potentially at odds with their pasts and from other cultural groups” (p. 88).

These factors shape aspiration. Evidence from research in Australian higher education suggests that students are motivated to make decisions on courses and institutions as a consequence of a wide range of impacting forces. Cupitt and Costello (2014) utilise Robinson and Bornholt’s (2007) model of progression into higher education to examine pathways by which students enter university. In this model, students must also aspire to a particular course as part of path to a related career path which course completion will enable. However, students are influenced by external factors such as their familial environment, place in the community, friends and peers, and educational institution (school).

Figure 1: Student progression via multiple pathways



Source: Cupitt and Costello (2014)

The student progression model situates student decision as being dependent on the social context in which students develop an aspiration to enter higher education and the choice of course is influenced by these factors.

Family Background

There are many reasons why individuals from regional, rural and remote areas on average achieve lower educational outcomes than their metropolitan peers. A number of studies note that family background – particularly parental education levels – is a strong predictor of students’ educational outcomes and aspirations (Chesters, 2015; OECD, 2010; Rampino, 2015). This is particularly pertinent in the case of regional, rural and remote areas where, for instance, higher education attainment levels are far lower for 25-64 year olds – 18% in inner-regional areas; 15% in outer-regional (15%) – than in major cities (at 31%) (Cardak et al., 2017). This means that on average regional students are significantly disadvantaged when it comes to expected educational outcomes.

A recent study by staff of the National Centre for Vocational Education Research (NCVER) found that young people whose parents express a preference for them to attend university are 11 times more likely to do so (Gemici et al. 2014). Additionally, the NCVER study finds that peer choices and aspirations figure prominently in influencing choice among students, and when combined with parental aspirations, are strongly influential in determining higher education aspirations among students almost irrespective of other factors.

The educational and socioeconomic background of parents informs and influences their educational preferences for their children (and through peer effects, other children), with a strong socioeconomic gradient being present in relation to higher education participation (as outlined

above). Parents from higher socioeconomic backgrounds tend to have better knowledge of higher education in general, as well as knowledge of specific aspects of entry and course requirements, as well as information on the benefits of earning post-secondary qualifications.

This encapsulates the compounding nature of disadvantage in such areas. Koshy, Dockery and Seymour (2017) used data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey to examine parental expectations for university participation among their children. They found that even after controlling for a wide range of household and socioeconomic effects, parents in regional, rural and remote areas were markedly less likely (8.4% in inner regional areas and 12.3% in outer regional and remote areas) to expect that their child would attend university.

The implications arising from these findings point to the importance of engaging families in the education process. Initiatives that regularly inform parents and children of educational developments and opportunities, and also attract the more disengaged families so they become more familiar with the benefits of education and the means of accessing it, may enhance positive motivations for students wanting to study.

Community

The challenges regional students face are often reflective of broader systematic disadvantage faced by regional, rural and remote communities as a whole, as the cumulative effect of inhibiting forces without encouraging factors seemingly saps aspirations (Fleming & Grace, 2014; James, 2002; Naylor, Baik, & James, 2013). They are also more vulnerable to the restructuring of communities and economies of recent decades (Alloway & Trim, 2009).

While positive parental and peer expectations for higher education, including well-resourced schools can ameliorate significant background disadvantage (Gemici et al., 2014; Redmond, Wong, Bradbury, & Katz, 2014; Sullivan, Perry, & McConney, 2013), community infrastructure still looms large as an enabling factor in the decision to access higher education.

Research on 'community cultural wealth' frameworks show that programs designed to enhance community local capacity and response can also enhance the flow on effects of schooling and educational outcomes, particularly for regional Indigenous students (Harwood, McMahon, O'Shea, Bodkin-Andrews, & Priestly, 2015; Yosso, 2005).

However, in addition to the challenges of navigating the Australian higher education system from smaller, remoter, communities, students from regional, rural and remote areas must often leave these communities to attend an educational institution, increasing the requirements on behalf of households, school and communities to prepare them for doing so (Alloway & Trim, 2009).

Given James et al. (1999, p. xvi) that 'rurality and socioeconomic status combine to produce the greatest educational disadvantage', special consideration needs to be given to the compounding nature of educational disadvantage at the community level in regional, rural and remote areas.

Recommendation 2: That DET identify how regional education providers can form partnerships with regional economic development authorities to promote regional and local economic futures projects focused on building local skills that leverage off regional economic advantages to better create economic development, industry expansion and employment.

Schools

Support from an educational institution, primarily a secondary school, is also important in ameliorating disadvantage in regional, rural and remote areas.

Fundamentally, as the Review has pointed out in its Discussion paper this commences with the adequate resourcing of schools in regional, rural and remote areas. Lamb et al. (2015) examine educational participation trends in Australia in view of performance measures from pre-primary to secondary and observe that educational disadvantage compounds over time at every point of the cycle, but 'young people who are missing out can recover and gain ground' (p. iv).

Beyond the very important issue of the equality of educational opportunity at pre-higher education levels, schools also play an important role in assisting students in their transition to higher education. Tomaszewski et al. (2017) find that positive attitudes and relationships with schools and teachers are far more commonly found amongst university aspirants. Exposure to university representative talks, career guidance councillors and informational handouts also correspond with higher incidences of university enrolment. Critically, regional and remote students indicated higher levels of exposure to career guidance sources, but lower levels of positive attitudes and relationships with schools and teachers, indicating the strength of school experience in university aspirations for regional and remote students.

Gore et al. (2015) show that educational and career aspirations of younger students were similar in many respects to those of older students. These findings support the need for career planning to begin at Year 10 to encourage students to 'know' themselves, to identify their strengths and interests, in order to find careers matched to their individual 'capacities'.

A National Priorities Pool project investigated 'social marketing to low SES students' (Russell-Bennett, et. al., 2015) involved the Queensland University of Technology undertaking the research and design of an appropriate cost effective national social marketing strategy for low SES students

and communities that will assist universities to increase awareness of and raise aspiration to higher education. Such a model needs to be implemented for regional and remote students.

The primary response to access or motivations issues within higher education has taken place via university outreach work in schools. The NCSEHE has undertaken work in mapping the range of programs available (see NCSEHE, 2013; 2015; Bennett et. al., 2015), as outlined in the *Case Studies* section of this submission.

Recommendation 3: That DET examines how the response from different levels of the education sector (primary, secondary and tertiary) can provide more and better targeted resources for career information and guidance services, made available in appropriately constructive ways to all school students. The evidence on HEPPP funded regional programs designed to address disadvantage needs greater examination and promotion of what works and what might be enhanced or shared more broadly.

Barriers

The barriers to participation in higher education amongst students from regional, rural and remote areas can be formidable. These include: distance to university; financial constraints; and lower levels of support and knowledge in relation to university processes.

The implications arising from these findings point to the importance of schools as the focal point for the education-inspired initiatives that deliver benefits that flow well beyond schools. While school based functions such as career information and career engagement initiatives are important, so too are the linkages with community and business organisations that may re-position schools as delivering community as well as individual benefits.

Distance

Distance looms large in discussion of disadvantage in higher education. Recent studies of aspiration and access to higher education in Australia by Cardak et al. (2017) and Gore et al. (2015) find that students from regional, rural and remote areas are more likely to see distance as a significant barrier.

In particular, Cardak et al. (2017) found differences between regional students compared to metropolitan peers. They show that even after controlling for socioeconomic status and secondary academic progress (as proxied by the ENTER score), regional students are 4.7% less likely to attend university than students in metropolitan areas. They are also 5.8% less likely to graduate

from university if they do get there. Overall, the student from the regional area is 10.2% less likely to graduate from university than the city student.

This research suggest that regional, rural and remote students have relatively high levels of university aspiration regardless of distance to campus, however there remains a gap between regional aspiration, attainment and enrolments compared with that in metropolitan areas.

Distance issues are difficult to overcome with 'direct solutions' such as the provision of more regional campuses and/ or greater access and support to study online, both of which have their own sets of challenges shaped by geographic isolation. Distance may become less of a barrier if other impediments – including those stated in this section in Barriers – are removed or lessened.

Student Income Support

The driving force behind the influence of distance is the additional cost associated with participation by regional, rural and remote students, especially when they have to relocate to attend university.

Proximity to services in regional Australia remain a persistent challenge. Regional students are still required to relocate in order to attend many regional institutions (Cardak et al., 2017; Cooper et al., 2017). Campuses in Australia are located in metropolitan or regional centre hubs, which can be far from many regional students' homes. Policy makers need to consider the patterns of mobility and the extent to which regional campuses are serving a broader geography when investing in regional higher education delivery.

Prospective students are acutely aware of the costs of relocation and the likelihood that these will in part be borne by their families (Alloway and Dalley-Trim, 2009). This in and of itself acts as a substantial barrier to access.

Current Australian regulation of student income support programs, such as AUSTUDY, bars prospective students from accessing benefits unless they can prove to be living independently for 14 months (recently changed from 18 months). This means that regional students often have to postpone university entry to meet this requirement in the form of a 'gap year'. Birch and Miller (2007) show that 14.95% of regional students take a gap year compared to just 5.35% of students from metropolitan regions.

Tomaszewski, Perales and Xiang's (2017) found that while young people from low SES (regional/remote) backgrounds are less likely to enrol into university, they are more likely to enrol at university at a later stage. This is supported by Cardak et al.'s (2017) finding of the growing proportion of regional mature aged students relocating to attend university, particularly in major cities.

The barriers to accessing higher education for those living in regional, rural and remote areas present specific challenges and disincentives that are not faced by students from metropolitan regions. Further study and adjustments to government policy need to be considered to address this issue.

Recommendation 4: That DET re-examine the income and independent living test for AUSTUDY in view of evidence of the impact on recent changes on student outcomes.

Knowledge of University Access and Support Systems

Given lower levels of higher education attainment in regional, rural and remote areas, the higher costs of entering university from these areas and the challenge of organising income support for doing so, externally sourced or provided information is critical in ensuring students have opportunities for participation in higher education.

In effect, the provision of information on university entrance and participation at the community or school level reduces the disadvantages faced by students from disadvantaged backgrounds or those facing unique barriers to entering higher education.

Gale and Parker's (2014) findings on 'navigational capacity' are relevant here. Their study of regional Australian secondary schools finds that students' navigational capacities and archives of experience in relation to higher education were diminished. For example, while 67% of students aspired to go to university, only 18% had a sibling who had been a university student and only 10% of their parents (14% mothers, 6 % fathers) had a university degree. Yet almost half (47%) of all students indicated that they rely upon their family for information about post-school options. This presents as a great barrier to those with high aspirations and limited navigational capacity to follow through the higher education pathway process. Hence the need to ensure that schools and universities to work together to fill this gap.

Gore et al. (2015) find that university aspirants are more likely to use a wider variety of sources of information in their decision to enter university compared with non-aspirants. This makes access to official sources of information on courses and institutions all the more important in widening participation among school students who may not traditionally consider university as an option.

There have been numerous research projects funded by HEPPP and universities that have focussed on a regional perspective on access programs, information on university courses and participation in university life. These are summarised into themes with examples of programs and initiatives in the next section, *Case Studies*.

The 2016 HESP *Consultation on the Transparency of Higher Education Admissions Processes* has now recommended to government a series of initiatives on improvements to systems providing students with information on university entry, including course entry levels and requirements and general information on bonus points and scholarships. This forms the basis for an extension of this redesign towards information sources specifically related to enabling regional, rural and remote participation in higher education.

Recommendation 5: That DET work with the Higher Education Standards Panel (HESP) in relation to their recommendations for improved transparency in the provision of information on university access and student income support systems, with particular attention to the requirements of regional, rural and remote students.

Summary of Recommendations

This submission makes the following recommendations on regional, rural and remote education:

Recommendation 1: That DET enhance its collection and reporting of access, participation and graduation from universities by students from regional, rural and remote education in view of current work on equity reporting in higher education. This may include a separate annual report for progress by these students. This work can be undertaken in conjunction with current work being funded through the National Priorities Pool.

Recommendation 2: That DET identify how regional education providers can form partnerships with regional economic development authorities to promote regional and local economic futures projects focused on building local skills that leverage off regional economic advantages to better create economic development, industry expansion and employment.

Recommendation 3: That DET examines how the response from different levels of the education sector (primary, secondary and tertiary) can provide more and better targeted resources for career information and guidance services, made available in appropriately constructive ways to all school students. The evidence-base of HEPPP funded regional programs designed to address disadvantage needs greater examination and promotion of what works, and what might be enhanced or shared more broadly.

Recommendation 4: That DET re-examine the income and independent living test for AUSTUDY in view of evidence of the impact on recent changes on student outcomes.

Recommendation 5: That DET work with the Higher Education Standards Panel (HESP) in relation to their recommendations for improved transparency in the provision of information on university access and student income support systems, with particular attention to the requirements of regional, rural and remote students.

Case Studies

As indicated in our formal response to the Review, the primary policy response in higher education towards enhancing access and participation has come about through access and retention programs conceived and managed by universities and funded through HEPPP.

This section provides a summary of HEPPP and university funded programs that illustrate the range of innovation in widening participation. More summary material on these cases plus additional background information can be obtained from two publications by the NCSEHE, *Access and Participation in Higher Education* (NCSEHE, 2013) and *Partnerships in Higher Education* (NCSEHE, 2015) as well as from Bennett et. al., (2015).

The case studies demonstrate that a large number of students from regional, rural and remote areas come from disadvantaged backgrounds and in many cases those students have compounding disadvantages that multiply the challenges for both students as well as for the educational institutions that seek to redress the associated impediments to higher education.

Given the complexity of the issues and challenges, the case studies also illustrate numerous dimensions and themes. The main themes are summarised below, followed by examples of innovation in access and outreach programs. In some cases these case studies respond to more than one theme, for instance: 'working with communities', a particular equity group, group of schools or area of study.

Building aspirations is a fundamental theme across many programs for improving access and widening participation in higher education. Higher education and career information is an area of focus for some programs that may open minds to possibilities that were previously never considered. While building aspirations is the catalyst to personal development, students may also need facilitative support in their transition and settling into higher education.

- *UNI4YOU* (University of Newcastle) promotes increased awareness of access pathways and understanding of the support available to enable successful completions. The program provides activities to support the engagement of economically and geographically marginalised adults, with aspiration being stimulated through pre-enrolment study and information sessions in accessible locations within communities.
- *Inspire E-Mentoring* (Flinders University) enables students to explore pathways with undergraduate and post graduate mentors in higher education. The program is in with the Department of Education and Child Development for children at risk of disengaging with education. It culminates with visits to campus to experience university life and interact with mentors.

- *The Aspire Program* (University of NSW) raises awareness and aspirations of students to participate in higher education. It works with students longitudinally over a number of years to encourage them to make informed choices about their higher education opportunities through 55 schools in Sydney and regional NSW.
- *Improving Selection for Social Inclusion through Special Entry Admission Scheme* (Monash University) recognises that students who have been disadvantaged will perform better at university than school results suggest. The scheme considers a range of factors contributing to disadvantage and takes these into account when providing facilitative support to students who have achieved well in spite of adversity and who could succeed.

Working with communities is an important consideration, particularly where communities may have low levels of experience and familiarity with higher education and therefore low levels of knowledge and attraction to further education opportunities. As the case studies illustrate, all communities are unique and have different needs as well as different opportunities and local skills on which they can build.

- *Whole of Community Engagement Initiative* (Charles Darwin University) explores Indigenous perspectives on higher education, examining facilitators and barriers to build aspirations, expectations and capacities to participate. The program is a whole of community initiative that works with Indigenous mentors, leaders and organisations to drive innovative bottom-up strategies and solutions built on and responsive to Indigenous knowledge.
- *Get Into Uni* (James Cook University) ensures that all low SES and Indigenous students have access to tertiary awareness and preparation programs. The program is flexible and community-driven. It is regionally based through eight community hubs and activities are held on university campuses, schools and communities in north and north east Queensland, including island communities.

Working with schools is critical because schools are the prime institution and focal point from which program initiatives can be driven. Programs can focus on a range of initiatives that feature either 'universities going to schools' or 'students going to universities', both of which offer tastes of higher education and careers that may inspire young students.

- *Flinders UniTEST* (Flinders University) provides greater access to higher education for students who would not otherwise be selected on Y12 performance alone. UniTEST and Y 12 scores play a complementary role in the selection process. UniTEST is an aptitude test that assesses quantitative, critical and verbal reasoning that underpin studies in higher

education. The program is focussed on low SES and regional students and Flinders partners with secondary schools to deliver it.

- *ANU Regional Partnerships Program* (Australian National University) raises awareness about university study for students from partnership schools and encourages consideration of university as a post-school option. It consists of a number of school-based programs and ANU campus and residential programs that provide educational enrichment to school students from primary to Y12.
- *Regional Schools Outreach Program* (Federation University Australia) is delivered in schools, on campus and online with students and their families, through age-specific activities across years 5-12, to regional students from low SES and regional/ remote backgrounds in western Victoria. A key feature is student ambassadors who co-deliver programs. The university works in partnership with 49 regional Victorian schools to address lower rates of access to higher education compared to metro areas.

Programs that focus on equity groups are targeted but in many cases students from a regional, rural and remote background may be a member of more than one equity group and in need of support that is more focussed on individual needs.

- *Aspire UWA* (University of WA) seeks to improve the motivation and attainment of students in low SES communities. The program has partnerships with 21 metropolitan and 31 regional and remote secondary school to support students with academic potential but facing challenges to achieve higher education goals. Hands on activities are delivered in schools and on campus for middle school students and these provide insights into opportunities in higher education.
- *National Indigenous Science and Education Program* (Macquarie University) is aimed at stimulating interest in science in secondary and tertiary education among Indigenous youth in a community inclusive manner. The outreach program engages with schools and communities in metro and rural low SES regions, providing a peer supported learning program that is delivered on school and university campuses and at partner organizations across NSW and nationally.
- *Student Success Team* (Charles Sturt University) assists students from low SES backgrounds transition into university, including the provision of support to those showing signs of disengaging from their studies. Students are supported in their first semester at university. The Student Success Team is staffed by students based in a call centre at a regional campus and new students are contacted by phone and mail.
- *iSmile – Dental Assisting Training Program* (Charles Sturt University) seeks to address a severe shortage of oral health and dental practitioners in rural areas. It enables Indigenous

students to study in their own area and provides a pathway for strong employment opportunities. The program commences with a Certificate 2 and builds through higher levels of attainment, culminating in a Bachelor of Dentistry at Charles Sturt University.

- *Old Ways, New Ways* (Edith Cowan University) seeks to improve participation of Indigenous students in science subjects. The program brings together western and Aboriginal knowledge and perspectives on science, and encourages Indigenous students from low SES backgrounds to pursue education and careers in science.

Programs that focus on areas of study are useful in providing facilitative support to students with an interest or passion for an area of study but who may find it difficult to navigate their own way into a course. Examples include science education, dentistry, astronomy and film and animation.

- *Aspire to Astronomy* (University of Western Australia) seeks to engage regional students, their families and communities in discussions about the importance of higher education and the richness of university life. The program works with partner schools and teacher enrichment partners in Western Australia to inspire students to develop interests in science and astronomy and share this enthusiasm with regional communities.
- *Visual Arts Portfolio Workshop* (Central Queensland University) builds aspirations in and provides academic support for low SES regional secondary school students who have potential to enrol in tertiary visual or design arts courses. The program provides secondary students with admission information about tertiary visual arts programs, augmented by practical art making experiences typical of first year undergraduate study. It also raises awareness about scholarships, and seeks to improve academic outcomes.
- *Compass Film and Animation Workshops* (University of Sydney) delivers workshops that focus on communication, team work, problem solving, creativity, literacy and digital literacy skills. The program is delivered to 25 metro and regional primary and secondary schools in NSW. The experiential nature of the creative imagining and depiction of stories using digital technology results in increased technical skills for the students involved.

Innovation in program delivery is important for students from regional, rural and remote backgrounds. Innovation can be focussed on new and different ways of reaching communities through direct activities and engagement, or by employing new technology delivery systems that offer greater access to higher education and increased flexibility for the times at which courses and information can be accessed.

- *Bendigo Tertiary Education Partnership* (La Trobe University) seeks to grow the depth and breadth of higher education programs on pathway offerings in regional Victoria. It does so

through interventions that include school outreach, capacity building of school teaching staff, career information for parents, and industry engagement. The program has three elements: foundation (sustainability through robust governance and planning); scaffolding (providing integrated pathways to support teaching staff, parents and students to broaden aspirations to include tertiary study); and reinvigoration (to increase regional participation in collaborative delivery strategies between TAFE and university).

- *The First Year Experience Strategy* (University of New England) supports the successful transition from commencing student to progressing student, built on a first year coordinators network on learning as it relates to students from regional and remote backgrounds. The program focuses on managing the multi-faceted issue of student transition and success in the critical first year. The project components include: the provision of informal learning spaces; the appointment of first year experience coordinators; and the award of Vice Chancellors Scholars to reward gifted students and provide them opportunities for academic and professional advancement.

Developing broad and deep institutional connections between schools, communities and universities serve as links in a chain that can lead from personal and community disadvantage to academic and career success for individuals and greater diversity in skills among communities with which to build local economies.

- *Queensland's Widening Tertiary Participation* (Universities in Queensland) was developed to stimulate demand for university study in regional and remote locations. Between 2011 and 2015 the program was delivered by an eight-university consortium, providing school outreach and Indigenous engagement projects across Queensland. Its model involved universities delivering similar programs in different locations, and a distribution of funds that sought to compensate university providers for the size, complexity and distance factors associated with delivery in different regions. Since 2015 this activity has continued at a similar scale in most regions.

Developing the optimal programs for a particular region, issue or student cohort is a challenge in itself. All programs have different 'leverages' – the degree to which they are efficient and effective in their impacts and desired outcomes. There are differences in needs and opportunities within and between regions and as well as responses to them. There are also different levels of knowledge as to the options for developing access programs. In many cases, programs evolve over time based on experience as to what works in a particular setting.

There are some considerations in improving the efficiency and effectiveness of access programs. While there are a few focused sources for information on research into programs (such as the Department of Education and Training and the NCSEHE), there is no centralised source on all programs. A coalescing of information towards easier access to information on programs would assist all stakeholders to identify ideas and opportunities from existing initiatives, as per our Recommendation 3.

Such a resource (hopefully in the form of the future HEPPP Evaluation Framework) would ensure the development of a research capacity to compare and contrast university outreach and participation programs, thus informing best practice. It would also allow for an ongoing assessment of the efficiency and effectiveness of initiatives to ascertain how successful programs have been in meeting their objectives.

References

ACIL Allen Consulting (2017). *Evaluation of the Higher Education Participation and Partnerships Program*. A Report to the Australian Department of Education and Training, Melbourne: ACIL Allen Consulting, June. Retrieved from: <https://docs.education.gov.au/node/43911>

Alloway, N., and Dalley-Trim, L. (2009). “‘High and dry’ in rural Australia: Obstacles to student aspirations and expectations”, *Rural Society*, 19 (1), 49–59.

Armstrong, D., & Cairnduff, A. (2012). Inclusion in higher education: Issues in university-school partnership. *International Journal of Inclusive Education*, 16 (9), 917–928.

Australian Government Department of Education (2016). *Selected Higher Education Statistics – 2015 Student data*. Canberra: Australian Government Department of Education and Training, July. Retrieved from: <https://www.education.gov.au/selected-higher-education-statistics-2015-student-data>)

Australian Government Department of Education (2017). *Completion Rates of Domestic Bachelor Students – A Cohort Analysis, 2005-2014*. Canberra: Australian Government Department of Education and Training, January. Retrieved from: <https://docs.education.gov.au/node/41841>

Bennett, A., Naylor, R., Mellor, K., Brett, M., Gore, J., Harvey, A., Munn, B., James, R., Smith, M., and Whitty, G. (2015). *The Critical Interventions Framework Part 2: Equity Initiatives in Australian Higher Education: A Review of Evidence of Impact*. Retrieved from: http://www.newcastle.edu.au/_data/assets/pdf_file/0016/261124/REPORT-FINAL.pdf

Birch, E. and Miller, P. (2007). The characteristics of ‘gap-year’ students and their tertiary academic outcomes. *Economic Record*, 83 (262), 329–344.

Bowden, M. P., & Doughney, J. (2010). Socio-economic status, cultural diversity and the aspirations of secondary students in the Western Suburbs of Melbourne, Australia. *Higher Education*, 59 (1), 115–129. <https://doi.org/10.1007/s10734-009-9238-5>

Burke, P. J., Bennett, A., Burgess, C., Gray, K., & Southgate, E. (2016). *Capability, Belonging and Equity in Higher Education: Developing inclusive approaches*. Bentley: National Centre for Student Equity in Higher Education, Curtin University.

Cardak, B., Brett, M., Bowden, M., Vecci, J., Barry, P., Bahtsevanoglou, J., & Mcallister, R. (2017). *Regional Student Participation and Migration: Analysis of factors influencing regional student participation and internal migration in Australian higher education*. National Centre for Student Equity in Higher Education, Perth: Curtin University.

Chesters, J. (2015). Maintaining inequality despite expansion: Evidence of the link between parents’ education and qualitative differences in educational attainment. *Higher Education Quarterly*, 69 (2), 138–157.

Cooper, G., Baglin, J., & Strathdee, R. (2017). *Access to Higher Education: Does Distance Impact Students’ Intentions to Attend University?* National Centre for Student Equity in Higher Education,

Perth: Curtin University.

Cupitt, C. & Costello, D. (2014). *Bridges to Higher Education Initiative: Literature Review V1.2*. National Centre for Student Equity in Higher Education, Perth: Curtin University.

Dalley-Trim, L., & Alloway, N. (2010). Looking “Outward and Onward” in the Outback: Regional Australian Students’ Aspirations and Expectations for their Future as Framed by Dominant Discourses of Further Education and Training. *Australian Educational Researcher*, 37(2), 107–125.

Edwards, D. & McMillan, J. (2014). *Completing University in a Growing Sector: Is Equity an Issue?* National Centre for Student Equity in Higher Education, Perth: Curtin University. Retrieved from: <https://www.ncsehe.edu.au/publications/completing-university-in-a-growing-sector-is-equity-an-issue/>

Fleming, M. J., & Grace, D. M. (2014). Increasing participation of rural and regional students in higher education. *Journal of Higher Education Policy and Management*, 36(5), 483–495.

Gale, T. & Parker, S. (2014). Navigating change: a typology of student transition in higher education. *Studies in Higher Education*, 39 (5), 734–753.

Gale, T., & Parker, S. (2015). Calculating student aspiration: Bourdieu, spatiality and the politics of recognition. *Cambridge Journal of Education*, 3577(March), 1–16.
<https://doi.org/10.1080/0305764X.2014.988685>

Gemici, S., Bednarz, A., Karmel, T., & Lim, P. (2014). *The factors affecting the educational and occupational aspirations of young Australians*. National Centre for Vocational Education and Research. Adelaide.

Gore, J., Holmes, K., Smith, M., Lyell, A., Ellis, H., & Fray, L. (2015). *Choosing University: The Impact of Schools and Schooling*. Newcastle: Teachers & Teaching Research Program, The University of Newcastle. Newcastle.

Halsey, J. (2017). *Independent Review into Regional, Rural and Remote Education: Discussion Paper*. Independent Review into Regional, Rural and Remote Education, Commonwealth of Australia: Canberra. Retrieved from: https://docs.education.gov.au/system/files/doc/other/03917_independent_review_accessible.pdf

Harvey, A., Burnheim, C., & Brett, M. (2016). *Student Equity in Australian Higher Education: Twenty-five years of A Fair Chance for All*. Singapore: Springer.

Harwood, V., McMahon, S., O’Shea, S., Bodkin-Andrews, G., & Priestly, A. (2015). Recognising aspiration: the AIME program’s effectiveness in inspiring Indigenous young people’s participation in schooling and opportunities for further education and employment. *The Australian Educational Researcher*, 42 (2), 217–236.

James, R. (2001). Participation Disadvantage in Australian Higher Education: An Analysis of Some Effects of Geographical Location and Socioeconomic Status. *Higher Education*, 42 (4), 455–472.

James, R. (2002). *Background and Higher Education Participation : aspirations and expectations*. Department of Education, Science and Training. Canberra: Commonwealth of Australia.

James, R., Bexley, E., Anderson, A., Devlin, M., Garnett, R., Marginson, S., & Maxwell, L. (2008). *Participation and Equity: A Review of the Participation in Higher Education of People from Low Socioeconomic Backgrounds and Indigenous People*. Centre for Studies in Higher Education. Melbourne: The University of Melbourne.

Jardine, A. (2012). *Indicators of persistence and their influence on the first year experience of university students from low socio-economic backgrounds*. Centre for Studies in Higher Education. Melbourne: The University of Melbourne.

Kintrea, K., St Clair, R., & Houston, M. (2015). Shaped by place? Young people's aspirations in disadvantaged neighbourhoods. *Journal of Youth Studies*, 18 (5), 666–684.

Koshy, P. (2016a). *Student Equity Performance in Australian Higher Education: 2008 to 2015*. National Centre for Student Equity in Higher Education. Perth: Curtin University.

Koshy, P. (2016b). Equity policy in Australian higher education: Past, present and prospective. In Hill, M., Hudson, A., Mckendry, S., Raven, N., Saunders, D., Storan, J. & Ward, T. (eds.) *Closing the Gap: Bridges for Access and Lifelong Learning*. London: Forum for Access and Continuing Education. 277–302.

Koshy, P., Dockery, A.M. & Seymour, R. (2017). Parental expectations for young people's participation in higher education in Australia. *Studies in Higher Education*, Accepted.

Lamb, S., Jackson, J., Walstab, A., & Huo, S. (2015). *Educational Opportunity in Australia 2015: Who succeeds and who misses out*. Centre for International Research on Education Systems, for The Mitchell Institute, Victoria University. Melbourne: Mitchell Institute.

Lim, P. (2014). *Do individual background characteristics influence tertiary completion rates?* National Centre for Student Equity in Higher Education. Perth: Curtin University. Retrieved from: <https://www.ncsehe.edu.au/publications/do-individual-background-characteristics-influence-tertiary-completion-rates/>

McInerney, D. M., & King, R. B. (2013). Harnessing the power of motivational factors for optimizing the educational success of remote indigenous students: a cross-cultural study. In *Seeding Success in Indigenous Australian Higher Education* (Vol. 14, pp. 81–111). Emerald Group Publishing Limited. [https://doi.org/10.1108/S1479-3644\(2013\)0000014004](https://doi.org/10.1108/S1479-3644(2013)0000014004)

NCSEHE – National Centre for Student Equity in Higher Education (2013). Access and Participation in Higher Education: Outreach, Access and Support. National Centre for Student Equity in Higher Education. Perth: Curtin University. Retrieved from: <http://www.ncsehe.edu.au/wp-content/uploads/2013/11/NCSEHE-Access-and-Participation-in-Higher-Education-2013.pdf>

NCSEHE. (2014). Partnerships in Higher Education. National Centre for Student Equity in Higher Education, Perth: Curtin University. Retrieved from: <https://www.ncsehe.edu.au/wp-content/uploads/2014/12/NCSEHE-Partnership-Publication-Web.pdf>

NCSEHE. (2016a). Response to Consultation on the Transparency of Higher Education Admissions Processes (HESP Options Paper). May. National Centre for Student Equity in Higher Education. Perth: Curtin University.

NCSEHE. (2016b). Submission to Education Evidence Base Inquiry. June. National Centre for Student Equity in Higher Education. Perth: Curtin University.

Naylor, R., Baik, C., & James, R. (2013). *Developing a Critical Interventions Framework for advancing equity in Australian higher education*. Centre for Studies in Higher Education. Melbourne: The University of Melbourne.

OECD. (2010). *PISA 2009 Results : Overcoming Social Background - Equity in Learning Opportunities and Outcomes (Volume II)*. Paris:OECD.

Pitman, T. and Koshy, P. (2015), *A Framework for Measuring Equity Performance in Australian Higher Education*. Report to the Australian Government Department of Education and Training. Canberra.

Pitman, T, Trinidad, S., Devlin, M., Harvey, A., Brett, M., & McKay, J. (2016). *Pathways to higher education: A comparison of the efficacy of enabling and sub-bachelor pathways for disadvantaged students*. National Centre for Student Equity in Higher Education. Perth: Curtin University.

Rampino, T. (2015). *The Role of Parental Education and Income in Children 's Aspirations for Higher Education: A Causal Estimation* (2015 No. 20). Life Course Centre, Institute for Social Science Research. Brisbane: The University of Queensland.

Redmond, G., Wong, M., Bradbury, B., & Katz, I. (2014). *Intergenerational Mobility: new evidence from the Longitudinal Surveys of Australian Youth, Research Report*. Adelaide: National Centre for Vocational Education and Research.

Robinson, R. and Bornholt, L. (2007). Pathways theory of progression through higher education. *Australian Journal of Educational & Developmental Psychology*, 7, 49–62.

Russell-Bennett, R., Drennan, J., Kerr, G., & Raciti, M., (2016). *Social Marketing Strategy for Low SES Communities*. Brisbane: Queensland University of Technology. Retrieved from https://www.ncsehe.edu.au/wp-content/uploads/2017/03/Final-Report-Social-Marketing-Strategy-QUT_2016.pdf

Sellar, S., & Gale, T. (2011). Mobility, aspiration, voice: a new structure of feeling for student equity in higher education. *Critical Studies in Education*, 52 (2), 115–134.

Sellar, S., Gale, T., & Parker, S. (2011). Appreciating aspirations in Australian higher education. *Cambridge Journal of Education*, 41(1), 37–52.

Sullivan, K., Perry, L. B., & McConney, A. (2013). How do school resources and academic performance differ across Australia's rural, regional and metropolitan communities? *Australian Educational Researcher*, 40 (3), 353–372.

Tomaszewski, W., Perales, F., & Xiang, N. (2017). *School Experiences, Career Guidance, and the University Participation of Young People from Three Equity Groups in Australia*. National Centre for Student Equity in Higher Education. Perth: Curtin University.

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education*, 8 (1), 69–91.

Appendix A: Regional, Rural and Remote Case Studies

Regional, Rural and Remote Case Studies

HEPPP Funded Initiatives

University – Program Initiative	Aims/Goals of Program	Brief Description
<p>La Trobe University ‘Bendigo Tertiary Education Partnership’</p>	<ul style="list-style-type: none"> - Grow depth and breadth of higher education programs on pathway offerings in regional Victoria. - Provide a broad and sustainable model for raising aspirations and participation in higher education for young people in the region. - Interventions include school outreach and engagement, capacity building of school teaching staff, career information for parents and industry engagement and participation 	<p>Program has these major elements:</p> <ul style="list-style-type: none"> - Foundation: sustainability through robust governance and planning, underpinned by data and evidence. - Scaffolding: provide integrated Pathways hub to support teaching staff, parents and students to broaden aspirations to include tertiary study. - Reinivoration: Redevelop 2 higher education courses to allow regional participation and collaborative delivery strategies between TAFE and the university.
<p>University of NSW ‘Centennial Parklands Education Access Pass’</p>	<ul style="list-style-type: none"> - To open students eyes to the a broader spectrum of educational and career opportunities (e.g. with existence of green spaces in urban environments) - Explicit connections are made between activities, the broad degree programs to which they relate, and the subsequent career pathways available to students 	<ul style="list-style-type: none"> - Offers opportunities for students from disadvantaged, regional and remote schools to visit Sydney’s iconic Centennial Parklands precinct; - The program actively engages students in scientific methodologies and investigations such as classification of species, water quality testing, environmental impact studies and exploration of the factors influencing the growth, development, adaptation and diversity of ecosystems.
<p>University of Newcastle ‘UNI4YOU’</p>	<ul style="list-style-type: none"> - Increase awareness of access pathways and understanding of the support available to enable successful completion; - Provide information and support to adults that may never have tertiary identified tertiary study as an option for them or have previously attempted tertiary study but not succeeded due to socio environmental factors. 	<ul style="list-style-type: none"> - Provides activities to support the engagement of economically and geographically marginalised adults; - Aspiration is stimulated through pre-enrolment study and information sessions in accessible locations within communities; - Weekly study meetings encourage students’ successful completion.
<p>University of WA ‘Aspire to Astronomy’</p>	<ul style="list-style-type: none"> - Overarching objective was to engage regional students, their families and communities in discussions about the importance of higher education - Engage the community with the richness of university life - Inform them of opportunities and support available to regional students at university - Provide unique PD opportunity for teachers - Create an opportunity for scientific experts to reach a large number of students 	<ul style="list-style-type: none"> - Aspire to Astronomy works with partner schools in WA to inspire and educate students about the benefits of higher education - The roadshow was a collaboration of education and teacher enrichment partners who are passionate about science and astronomy and keen to share this enthusiasm with regional communities
<p>Australian National University ‘Visual Arts Portfolio Workshop’</p>	<ul style="list-style-type: none"> - Build aspiration in and to academically support low SES regional secondary students who have potential to enrol in tertiary visual or design arts courses; - Informs students and teachers about the portfolio and interview process for application; - Build school and community capacity; - Increase capacity to access higher education. 	<ul style="list-style-type: none"> - Provides secondary students with admission information about tertiary visual arts programs, augmented by practical art making experiences typical of first year undergraduate study; - Raise awareness about scholarships; - Improve academic outcomes; - Increase awareness, confidence and motivation

<p>Central Queensland University 'CQUniversity Widening Participation'</p>	<ul style="list-style-type: none"> - To increase the participation of under-represented groups (Indigenous/Regional) in higher education in regional Queensland, the CQUniversity Widening Participation team developed the 'Engage Education' series of programs for school students. 	<ul style="list-style-type: none"> - 8 WP programs were delivered to students in Years 5-12 across 155 schools. - Student-centred activities included on-campus experiences, aspiration building exercises, demystification and awareness-raising about university, and career development. - Programs include Indigenous and primary school specific activities and a mentoring program with Year 11-12 students with current CQU undergraduate students
<p>Charles Darwin University 'Whole of Community Engagement Initiative'</p>	<ul style="list-style-type: none"> - Identify and explore current Indigenous community perspectives (both Western and Indigenous) about higher education; - Identify the facilitators of, and barriers to, contemporary pathways into higher education for remote and very remote Indigenous communities; - Embed Indigenous community perspectives and concerns within existing strategies to build aspiration, expectation and capacity to participate in higher education; - identify and co-create ongoing opportunities for community, research, academic and public policy leaders; - Identify means for making higher education relevant and more culturally and physically accessible; 	<ul style="list-style-type: none"> - A HEPPP based Whole-of-Community Engagement initiative, which will work with six remote Indigenous communities across the Northern Territory to build aspiration, expectation and capacity to participate in higher education; - Indigenous mentors, leaders and organisations to drive innovative bottom-up strategies and solutions built on, and responsive to, Indigenous knowledges. - This large-scale multi-site participatory action research project involves community engagement leaders, mentor and enrichment officers, and a community teacher's liaison leader working closely with community based stakeholders.
<p>Macquarie University 'National Indigenous Science Education Program (NISEP)'</p>	<ul style="list-style-type: none"> - Stimulate interest in Science and secondary and tertiary education especially by Indigenous youth in a community inclusive manner - Increase Indigenous participation in higher education - Increase level of engagement with Science - Increase confidence in science - Communicate relevance of science - Develop communities of practice for sustainability of science outreach 	<ul style="list-style-type: none"> - Outreach program that engages with schools and communities in metro and rural low SES regions. - LEAP-NISEP provides a peer supported learning program delivered on school and university campuses and at partner organisations across NSW and nationally - Provides positive role models for younger students that broaden their experience of Aboriginal student excellence and that allow peer-supported learning.
<p>Flinders University 'Flinders uniTEST'</p>	<ul style="list-style-type: none"> - Provide greater access to higher education for students who would not otherwise be selected on Yr 12 performance alone; - uniTEST and Yr 12 scores play a complementary role in the selection process and the two in combination provide a more powerful means of predicting first year performance than either measure on its own; - Enabled 350 students to participate in higher education with 91% retention rate. 	<ul style="list-style-type: none"> - Aptitude test designed to assess students abilities and aptitude over 3 core areas of quantitative, critical and verbal/plausible reasoning that underpin studies in higher education and are needed to succeed; - Partners with secondary schools to deliver uniTEST, enabling greater opportunity to participate in higher education; - Focusses primarily on the education and access needs of students from low SES and regional/rural backgrounds.
<p>Charles Sturt University 'iSmile Dental Assisting Training Program'</p>	<ul style="list-style-type: none"> - Address severe shortage of oral health and dental practitioners in the area; - By tailoring and training rural and remote students they will be more likely to stay in the area; - Enable Indigenous students to study in their own area and provide pathway for strong employment opportunities; - Increase dental assistants, oral health therapists and dental practitioners in area. 	<ul style="list-style-type: none"> - A supported pathway program for Aboriginal students to a career in oral health or related areas in the health industry; - Commences with a Certificate II, and builds through Cert III and IV at TAFE Western to guaranteed entry into the Bachelor of Oral Health Therapy and then to Bachelor of Dentistry at Charles Sturt University; - Students share facilities with TAFE Western and CSU Oral health and dental students.

<p>Edith Cowan University (NISEP) 'Old Ways, New Ways'</p>	<ul style="list-style-type: none"> - Improve participation of Aboriginal and Torres Strait Islander students in science subjects - Focus is on findings ways to help students reach their full potential by improving educational and employment outcomes - Enhance confidence, leadership and communication skills while providing positive role models to inspire students - Facilitate integration of locally relevant and specific Indigenous knowledge into the teaching of science 	<ul style="list-style-type: none"> - New outreach initiative bringing together western and Aboriginal knowledge and perspectives on science; - Developed to encourage and support Aboriginal and Torres Strait Islander students from low SES communities; - Forged stronger links ECU's low SES metro and regional school partners.
<p>Anglicare Victoria and Federation University regional campuses</p>	<ul style="list-style-type: none"> - Encourage students to discover their passion and build their academic and career journey from that passion; - Provide secondary students the opportunity to work closely with higher education students in an environmental setting that is supportive and scenic - Strongly aligned with Fed Uni Regional School Outreach Program (RSOP) 	<ul style="list-style-type: none"> - Designed in response to Anglicare Vic 4 pillars of engagement of sport, art, music and environment; - Relies on current higher education students; - They act as Ambassadors and share their experiences and knowledge with secondary students in the region.
<p>University of Sydney 'Compass Film and Animation Workshops'</p>	<ul style="list-style-type: none"> - Projects developed with schools using principles of community development to ensure that content is relevant, aligns with key learning areas in the curriculum, meet school plan outcomes and provide learning enrichment in areas identified by the school community - Working with academics and project staff ensure that meaningful links between interests and future option in higher education are reinforced 	<ul style="list-style-type: none"> - Program delivers highly engaging workshops that reinforce communication, team work, problem solving, creativity, literacy and digital literacy skills. - The experiential nature of the creative imagining of a narrative and depiction of the story arc using digital technology results in increased technical and production skills for the students involved (25 metro & regional NSW primary and secondary schools).
<p>University of Wollongong 'Supported Pathways Program'</p> <p>(14)</p>	<ul style="list-style-type: none"> - Designed to improve participation of low SES and Indigenous people in higher education; - Involves collaboration with local government agencies and RTO's to raise educational capacity of the Illawarra SE Region; - Partners identify skills shortages in the region and provide tangible pathways and vocational qualifications to further education and employment. 	<ul style="list-style-type: none"> - Design programs that meet the needs of each organisation around employment and develop skills and knowledge of individuals they work with to make a successful transition between each phase of the pathway; - Ten students successfully completed the programs and were offered employment with 5 moving into employment and 5 enrolling into university degree.

University Initiatives – (Regional/Rural/Remote)

<p>University – Program Initiative</p>	<p>Aims/Goals of Program</p>	<p>Brief Description</p>
<p>University of WA 'AspireUWA'</p>	<ul style="list-style-type: none"> - Improving the motivation and attainment of students in low SES communities; - Encouraging and supporting Indigenous students in culturally appropriate ways; - Supporting school staff through professional development workshops and scholarships - Engaging parents and the wider community. 	<ul style="list-style-type: none"> - Partnerships with 21 metropolitan and 31 regional and remote secondary schools to support students with academic potential but facing challenges to achieve higher education goals; - Hands on activities delivered in schools and on campus for middle school students and provide insights into opportunities higher education offers; - Pathway program for medical and dentistry students who are sometimes the first from their school ever to enter these disciplines. - Specialist support to all Indigenous students which offers a wide range of activities aimed specifically at encouraging and supporting these students

<p>Australian National University 'ANU Regional Partnerships Program'</p>	<ul style="list-style-type: none"> - Raises awareness about university study; - Enhances educational outcomes for students from partnership schools; - Encourages consideration of university as post school option. 	<ul style="list-style-type: none"> - Consists of a number of school based programs and ANU campus and residential programs that provide educational enrichment to school students from primary to yr12; - Community based partnerships; - Admission package to support entry to ANU; - Transition grants to assist with moving to Canberra.
<p>Central Queensland University 'Facilitated Distance Learning Program'</p>	<ul style="list-style-type: none"> - Provide a model of distance education that is responsive to the needs of a diverse cohort (regional low SES) fully online for the first year. - Improve participation and retention of undergraduate students from low SES backgrounds 	<ul style="list-style-type: none"> - Supporting commencing students undertaking a fully distance program of study in the School of Education and the Arts. - Two way communication between academics and students. Program of professional development for academic staff to ensure consistent approach to curriculum implementation, facilitation skills, support strategies and project objectives.
<p>Charles Sturt University 'Student Success Team'</p>	<ul style="list-style-type: none"> - Assist students from Low SES background transition into university; - Provide support to those showing signs of disengaging from their studies; 	<ul style="list-style-type: none"> - Team supports students in their first semester at university. Staffed by students based in call centre at regional campus. New students contacted by phone and email.
<p>Federation University Australia 'Regional Schools Outreach Program'</p>	<ul style="list-style-type: none"> - In school, on campus and online activities with students and their families - Age specific activities across Years 5-12 - Key feature is student ambassadors who co-deliver programs and provide points of contact for information and inspiration 	<ul style="list-style-type: none"> - Increase access to higher education among students from regional/remote and low SES backgrounds in western Victoria; - Works in partnership with 49 regional Victorian schools to address the relationship between geographic and socio-economic factors which result in lower rates of access to higher education of regional and remote students compared to metro areas; - In school, on campus and online activities with students and their families.
<p>Flinders University 'Inspire e-Mentoring'</p>	<ul style="list-style-type: none"> - Enables students to explore pathways with undergraduate and post graduate mentors in higher education; - Helps develop understanding of higher education; - Existing for 10 years as Inspire Mentor Program, now extended to rural and regional students to raise aspirations and consider pathways to university. 	<ul style="list-style-type: none"> - In partnership with Department of Education and Child Development for children at risk of disengaging with education; - Culminates with visit to campus to experience life as university student, participate in on campus activities and interact with mentors.
<p>James Cook University 'Get Into Uni'</p>	<ul style="list-style-type: none"> - Ensure all low SES, Aboriginal and Torres strait Islander students have access to tertiary awareness and preparation programs; - Meaningful engagement that embraces diversity of communities, creating opportunities and enduring benefits for the region - Aims to alleviate potential barriers to access and participation faced by low SES and Aboriginal and Torres Strait Islander groups - Across Year 5/6 to Year 12 and adult and non-school leavers cohorts 	<ul style="list-style-type: none"> - Flexible program which provides relevant, community-driven support and engagement; - Regional based with 8 community hubs to stimulate interest in and awareness of higher education; - Activities held on university campus, schools and communities - Covers 500000m² of north and far north Queensland including island communities of Torres Strait, Gulf and east coast
<p>University of Melbourne 'Telescopes in School'</p>	<ul style="list-style-type: none"> - Bring together students, parents and teachers from low SES schools with academic staff in collaborative environment to improve awareness of higher education as post school option - Increase student aspiration for tertiary level science study 	<ul style="list-style-type: none"> - Partnership Outreach program with Quantum Victoria, Museum Victoria, ARC Centre for Excellence for All-sky Astrophysics and CSIRO targeting low SES schools in metropolitan and regional schools;

	<p>through use of research grade technical equipment to explore aspects of astronomy and astrophysics</p> <ul style="list-style-type: none"> - Establish and maintain positive long term relationships between participating low SES schools and University. 	<ul style="list-style-type: none"> - Activities include night and day observing, talks from astrophysicists, practical exercises and capturing images through telescopes; - Provide ongoing teacher support through regular PD and close collaborative relationships with academic staff.
University of NSW 'The ASPIRE Program'	<ul style="list-style-type: none"> - Raise awareness and aspirations of students to participate in higher education; - Assist in raising the academic attainment of students. 	<ul style="list-style-type: none"> - ASPIRE works with students longitudinally over a number of years to encourage them to make informed choices about their higher education opportunities; - Multifaceted program reaching out to 6000 students in 55 partner schools across Sydney and regional NSW.
The University of New England 'The First Year Experience Strategy'	<ul style="list-style-type: none"> - Support the successful transition from commencing student to progressing student - Recognise factors that impact on students from regional and remote and low SES backgrounds - Objective behind VC Scholars program is to provide a well-publicised incentive to all students to aspire to achieve outstanding academic results - First year coordinators network and emphasis on the science of teaching and learning as it relates to students from regional and remote backgrounds. 	<ul style="list-style-type: none"> - A University response to strategically managing the multi-faceted issue of student transition and success in the critical first year. The three initial projects are: - Informal Learning Spaces: ensure that students can access additional learning support in purpose built surroundings - First Year Experience Co-ordinators: Creates academic roles which foster best practice in First Year Experience Programs - Vice Chancellors Scholars: Celebrates achievements of most academically gifted students and rewards them by providing unique opportunities for academic and professional development
Monash University 'Improving Selection for Social Inclusion Through Special Entry Admission Scheme (SEAS)'	<ul style="list-style-type: none"> - Recognise that students who have been disadvantaged will perform better at university than school result suggests; - Extend opportunity to students who have achieved well in spite of adversity and who could succeed; - Provide consistent and transparent way of taking into account the nature and extent of disadvantage. 	<ul style="list-style-type: none"> - University recognises that a range of personal factors affects students' school achievement and that ATAR alone may not reflect student academic potential. - University considers factors such as financial disadvantage, mature age, attending a rural or isolated school, or school underrepresented in higher education, Indigenous status, non-English speaking backgrounds, difficult personal circumstances, and disability or long term medical conditions.

CI2 Equity Initiatives – (Regional/Rural/Remote)

University – Program Initiative	Aims/Goals of Program	Brief Description
The University of Newcastle 'AIM HIGH'	<ul style="list-style-type: none"> - Low SES - Regional/remote - WINTA - First-in-family; Refugee 	<ul style="list-style-type: none"> - The program targets students from primary school Year 4 to high school Year 12. It includes school-based projects in curriculum and mentoring as well as university experience visits. - AIM HIGH links with a large number of internal initiatives at the University of Newcastle.
University of Canberra 'Aspire UC'	<ul style="list-style-type: none"> - Regional/Remote 	<ul style="list-style-type: none"> - The initiative includes Year 7–10 students and provides in-class sessions delivered by university teaching staff about the academic, social and cultural aspects of university.
University of Wollongong 'In2Uni'	<ul style="list-style-type: none"> - ATSI - Low SES - Regional/remote - Mature age - First-in-family 	<ul style="list-style-type: none"> - The initiative includes a coherent suite of student diversity outreach programs. It offers both university preparation programs and vocational pathways to encourage people to remain connected with education.

<p>University of Queensland 'The Young Achievers Program'</p>	<ul style="list-style-type: none"> - Low SES - Regional/remote - ATSI - First-in-family' 	<ul style="list-style-type: none"> - The program targets Year 11 and 12 students who are provided with mentoring, residential camps and information about pathways programs. - On university admission, the students are also provided with support during their four years of university study through scholarships, and mentoring.
<p>University of South Australia 'UniCamps'</p>	<ul style="list-style-type: none"> - This program targets 'ATSI and Regional/Remote' students. 	<ul style="list-style-type: none"> - This is a one-week on-campus residential program for Aboriginal and/or Torres Strait Islander students from remote communities. - The initiative includes Year 7-10 students and provides in-class sessions delivered by university teaching staff about the academic, social and cultural aspects.
<p>University of Newcastle 'Academic Survival Skills Online'</p>	<ul style="list-style-type: none"> - Low SES - Regional/remote - Low ATAR - Mature age - First-in-family 	<ul style="list-style-type: none"> - The program is an open access online bridging course with nine modules on academic skills and aspects of university experience, for example, using the library for research. It is free and accessible to anyone regardless of age or education level.
<p>State tertiary admission centres 'ATAR bonus point schemes'</p>	<ul style="list-style-type: none"> - Low SES - Regional/remote - WINTA 	<ul style="list-style-type: none"> - An admissions initiative that includes an increase in selection rankings for particular equity groups to acknowledge educational disadvantage or to widen participation.
<p>Charles Darwin University 'E learning tools, enabling program'</p>	<ul style="list-style-type: none"> - Low SES - NESB - Regional/remote 	<ul style="list-style-type: none"> - E-learning tools were introduced to an enabling program targeting a cohort where 62 per cent of students study via online. The tools include video clips, online tutorials and discussion boards and aim to encourage active learning and engagement (Lambrinidis, 2014).
<p>The University of Sydney 'E12 (Admissions)'</p>	<ul style="list-style-type: none"> - Low SES - Regional/Remote 	<ul style="list-style-type: none"> - An early offer initiative for low SES Year 12 students with a lower entry ATAR cut off. Support is provided through first year scholarships, Apple iPads and academic support (Ng et al., 2015)
<p>La Trobe University 'Enabling Program'</p>	<ul style="list-style-type: none"> - NESB - Students with a disability - Low SES - Regional/remote - ATSI 	<ul style="list-style-type: none"> - This enabling program partners with TAFE and has recently expanded. - More support is offered such as optional extra tutorials, student and staff mentors and integrated support services have been introduced, for example, counsellors visit classes (Andrewartha & Harvey, 2014).
<p>The University of Newcastle 'Science for Nursing, enabling course'</p>	<ul style="list-style-type: none"> - NESB - Students with a disability - Low SES - Regional/remote - ATSI 	<ul style="list-style-type: none"> - This initiative is the development and re-design of a science course to improve long-term outcomes for mature age students in an enabling pathways program. The curriculum was adapted to be more relevant to students entering a health studies context (Burgess & Relf, 2014).

<p>University of South Australia 'Foundation Studies, UniSA College'</p>	<ul style="list-style-type: none"> - ATSI - Low SES - NESB - Students with a disability - Regional/remote - Low ATAR - Mature age - First-in-family - Refugee 	<ul style="list-style-type: none"> - This is a one-year, full-time, on campus program that aims to build academic literacy skills and confidence. The program focuses on compulsory core (general academic literacy) skills and includes introductory courses related to specific future undergraduate degrees. Students earn competitive entry to their desired undergraduate degree. - It is Commonwealth-supported and students have full access to university facilities and support while enrolled.
<p>The University of Newcastle 'Open Foundation Program'</p>	<ul style="list-style-type: none"> - NESB - Students with a disability - Low SES - Regional/remote - ATSI 	<ul style="list-style-type: none"> - A general enabling program, Open Foundation Program provides students with a pathway to university and a preparation for tertiary study. It has flexible delivery and students can study either part-time (on campus or by distance) or full-time over one semester (Bennett et al., 2013).
<p>The University of Newcastle 'Week Zero'</p>	<ul style="list-style-type: none"> - NESB - Students with a disability - Low SES - Regional/remote - ATSI 	<ul style="list-style-type: none"> - This is an online orientation program for commencing students in a distance enabling program. The program focuses on creating support networks, engaging students with course content and familiarising students with online learning tools. It includes discussion boards, video clips and blogs (Goode, 2013).
<p>University of Southern Queensland 'Empowering Online Pedagogy'</p>	<ul style="list-style-type: none"> - Low SES - ATSI - Regional/remote - Mature age 	<ul style="list-style-type: none"> - An online pedagogy was developed for the Department of Nursing and Midwifery at USQ. It includes embedded and scaffolded practices, forum discussions, e-tivities with video-lectures.
<p>The University of Melbourne 'Student Connect'</p>	<ul style="list-style-type: none"> - ATSI - Low SES - Students with a disability - NESB - Regional/remote 	<ul style="list-style-type: none"> - This program aims to provide a sense of connectedness and opportunities for advising all students. All first year students receive phone calls from peer advisors to discuss transition issues and establish appointments with advisors. Advisors provide a range of expertise in transition, course planning, career and developmental advice.
<p>Griffith University 'Uni-Key Peer Mentoring Program'</p>	<ul style="list-style-type: none"> - ATSI - Low SES - Students with a disability - NESB - Regional/remote - WINTA - Mature age - First-in-family, - Refugee - Pasifika 	<ul style="list-style-type: none"> - This is a peer mentoring program between high GPA later-year students and first year students from equity backgrounds. It aims to develop expectations, ability to negotiate university bureaucracy (including finding help), sense of belonging and social support, and foundation academic skills.
<p>Curtin University of Technology 'Listening, learning and leading'</p>	<ul style="list-style-type: none"> - ATSI - students with a disability - NESB - Regional/remote 	<ul style="list-style-type: none"> - This is a library program providing customised literacy support at point of need and active learning activities. It offers personalised support and skills development to improve access to library resources and services.

<p>Central Queensland University 'Mathematics Learning Centre'</p>	<ul style="list-style-type: none"> - Regional/remote - Mature age - General cohort 	<ul style="list-style-type: none"> - This is a mathematics support centre with flexible approaches to providing support for diverse students. It offers preparatory courses for alternative pathways students and general undergraduate students on campus or by distance. The centre provides workshops, drop ins, one-on-one support, independent learning, study groups, embedding in undergraduate courses and the use of Tablet PC for distance students (Adams et al., 2012).
<p>Bachelor of Nursing, Thursday Island Campus, James Cook University 'Mentoring Circles'</p>	<ul style="list-style-type: none"> - ATSI - Regional/Remote 	<ul style="list-style-type: none"> - This initiative operates by grouping a skilled, experienced mentor with less experienced students. The program focuses on strengthening academic, personal and study skills (Mills et al., 2014; Felton-Busch et al., 2013).
<p>La Trobe University 'Residential Services student Engagement program'</p>	<ul style="list-style-type: none"> - Regional/Remote 	<ul style="list-style-type: none"> - The program offers student engagement opportunities for students from rural or remote backgrounds. The main aim is to provide an enriched overall student experience not just focusing on academic success (Burge, 2012).