



NCSEHE

National Centre for Student
Equity in Higher Education



Curtin University



NCSEHE FOCUS

Successful outcomes for regional and remote students in Australian higher education
Issues, challenges, opportunities and recommendations from research funded by the
National Centre for Student Equity in Higher Education

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New insights from NCSEHE funded research on regional and remote students in higher education

Students from regional and remote backgrounds face complex, multidimensional issues in accessing and participating in higher education.

This report provides an overview of the key issues, identifies the principal challenges and highlights the major policy responses in view of the findings and recommendations from recent research reports funded by the National Centre for Student Equity in Higher Education (NCSEHE). It also draws on an August 2017 submission from the NCSEHE to the *Independent Review into Regional, Rural and Remote Education* and some of the current work being done by NCSEHE's Equity Fellows, a program funded by the Higher Education Participation and Partnerships Program (HEPPP).

Research and policy papers show there are general issues that apply across the whole of regional Australia and affect all students from regional areas, but there are also many unique issues that are specific to local areas. Ultimately, each region and locality is subject to different drivers and shapers of change to different degrees. Generalisation on regional equity issues needs to be treated with caution.

For simplicity of communication, students from regional, rural and remote areas will often all be referred to as 'regional' unless there is a specific need for separate identification. The Australian Government's current equity group classifications refer to two cohorts, 'regional' and 'remote'.

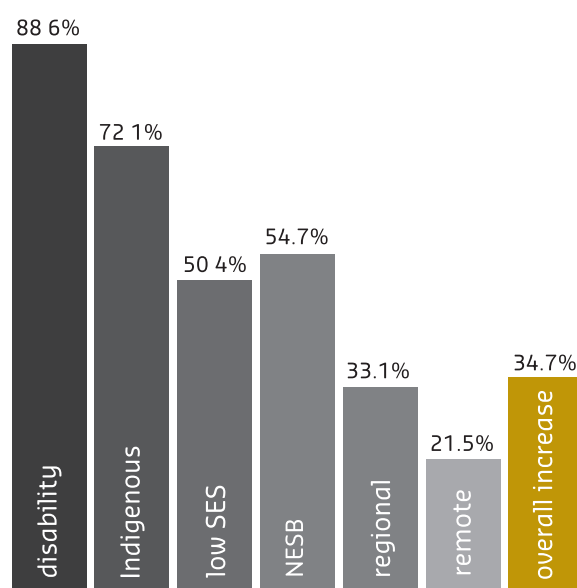
Background and trends

In Australian higher education, students from regional and remote areas are viewed as equity students due to their historic underrepresentation at university level, and the documented barriers to their participation.

Several policy responses have been formulated to address the issue of reduced access for equity students, including the introduction of the demand-driven funding system for higher education, combined with funding (through HEPPP) to support students from disadvantaged backgrounds, as well as extensions to funding for regional students, such as the regional student loading.

Overall, these measures have resulted in a big increase in equity group students' participation in higher education. While the total numbers of undergraduate students increased by 34.7 per cent between 2008 and 2015, the growth rates of some equity groups were far higher — students with disability increased by 88.6 per cent, Indigenous by 72.1 per cent and low socioeconomic status (SES) by 50.4 per cent. Students from a non-English speaking background (NESB) increased by 54.7 per cent over

the same period. However, students from regional and remote areas lagged behind, rising respectively by 33.1 per cent and 21.5 per cent, less than the overall increase in student numbers.



Percentage increase in numbers of undergraduate students between 2008 and 2015

Despite funding programs to improve access for regional students, the proportion of regional and remote students as a proportion of total undergraduate enrolments actually fell between 2008 and 2015.

Regional student representation fell from 19.0 per cent in 2008 to 18.8 per cent in 2015, and remote students' representation fell from 1.0 per cent to 0.9 per cent. In comparison, some other equity groups accounted for rising proportions of the total undergraduate cohort over the same period, with the low SES student share increasing from 16.3 per cent to 18.2 per cent; students with disability increasing from 4.4 per cent to 6.2 per cent; and Indigenous students increasing from 1.3 per cent to 1.6 per cent.

In a submission to the *Independent Review into Regional, Rural and Remote Education*, the Grattan Institute noted that most of the growth in university enrolments in recent years has been in metropolitan students. Between 2005 and 2015 student numbers in major Australian cities grew by 60 per cent, compared to 40 per cent for inner regional areas and 17 per cent for outer regional areas. The submission noted that regional students are underrepresented at university by about 30 per cent and remote students by 60 per cent.

A number of studies attribute relative underperformance to lower prior achievement, with poor secondary school performances resulting in lower levels of access to higher education and challenges during it.

The construction of knowledge in a local context

The economic, social and demographic characteristics of regional, rural and remote communities in Australia varies widely. As a result, there is no typical 'regional student' and consequently there can be no single solution to multifarious challenges.

While numerous research and policy reports acknowledge variation in local challenges to equity in higher education in regional Australia, the subtleties involved lead to a tendency to offer

This underperformance flows through to completion rates, with the Department of Education and Training's figures on the 2006-14 student cohort study showing an overall 73.5 per cent completion rate for students, compared to lower rates of completion for regional (69.0 per cent) and remote (60.1 per cent) students.

The underlying reasons for the divergence in outcomes between the general student population and regional students (and other equity group students) reflects the way that various disadvantages compound to reduce participation.

Students from regional areas are overrepresented among part-time, external and low Australian Tertiary Admissions Rank (ATAR) students, with all groups showing observable risks for non-completion of higher education.

The relative underperformance of regional education outcomes suggests that further advances will be much harder to achieve without clearer analysis of the key issues and solutions, accompanied by coordinated long-term strategies to implement them.

The broad high-level statistics that frame 'the regional higher education equity problem' provide a general picture only. Below the surface are many subtle sub-trends and countercurrents that give the problem a multifaceted shape and, consequently, solutions to the diversity of those challenges must be clearly identified, targeted and nuanced.

fragmented insights into a complex picture that cannot be captured by quantitative information.

Qualitative research often focuses on an individualised 'hear their voices' approach which is not easily categorised in ways that lead to practical outcomes in equity program design.

One of the NCSEHE's current doctoral students, Don Boyd, is seeking to overcome the limits of quantitative and qualitative research by processing

information from both methods that coalesce into three broad, but significant, classifications of students from regional and remote backgrounds.

The study, *Knowledge and Knowledge Construction of Higher Education by Regional Secondary Students: Making Sense of University*, lets the facts and opinions shape themselves into meaningful groupings, from which policy initiatives and equity support programs can flow.

The three broad classifications of regional and remote students are:

- early leavers from their communities who leave home to study
- the ‘stayers’ who have educational and career aspirations, but these may still be forming
- the ‘stayers’ who have no or low educational or career aspirations.

Each of these groups constructs knowledge in different ways; they have different understandings of higher education and careers.

Early leavers are likely to be from families who have a culture of boarding schools and who have at least one parent who has had a university education. The students have some firsthand knowledge of education, a general appreciation of its benefits, a level of self-efficacy and some confidence in facing the cultural changes associated with leaving home and going to a university.

The ‘stayers’ who have educational and career aspirations are talented individuals but lack direct knowledge from parents and peers. They find it hard to make connections and to feel comfortable with sources of information. The prospect of navigating around a university may be daunting. Leaving home is also a potentially frightening prospect.

The disadvantage narrative

As some research reports illustrate, an important insight into the shaping of motivations is the way we see, feel, talk about and report ‘disadvantage’. The way we tell stories, with positive or negative connotations, contributes to beliefs about ourselves and our communities.

The ‘stayers’ who have no or low educational or career aspirations are generally more out of touch with life options and are reluctant to change lifestyles when higher education and an alternative career are unknown quantities. They have few, or no, family or friends to inform them of university life or the opportunities it may offer.

Having classified students into three categories, two crucial questions are raised: where do they get information on higher education from and what information and support do they need?

The answers to these questions are very different for each group, and the answers have great practical value in constructing relevant and effective support programs.

Early leavers are more likely to seek practical information such as ‘which course is best?’ or ‘which university is best for me?’

‘Stayers’ who have educational and career aspirations are also likely to want practical information which is likely to focus on issues such as what a university life actually looks and feels like, what assignments consist of, and how to cope with finding new friends and accommodation.

‘Stayers’ who have no or low educational or career aspirations are more likely to need information that inspires, enabling them to connect skilled local trades and industries with broader trends in industry and innovation so they see possibilities that are not apparent in everyday life in their local community.

There may be a gap in our ‘diversity response’ to students from regional backgrounds based on how those students have been perceived by researchers, policy analysts, teachers and equity practitioners alike.

(lack of belief in personal and collective abilities), and deference (that metropolitan life and culture is always superior to regional lifestyles).

Telling positive stories, individually and collectively, shapes positive attitudes that build a positive cycle of inspiration, hope, optimism and expectations leading through to success. Individually and collectively, 'as we think, so we become'. These considerations play into our notions of 'capability', which has different and contested meanings. These concerns were explored in a 2016 report led by Penny Jane Burke for the NCSEHE, *Capability, Belonging and Equity in Higher Education: Developing Inclusive Approaches*. The way people see themselves shapes the types and intensity of their motivations as well as the way they perceive the range and magnitude of barriers.

As some research reports into Indigenous disadvantage demonstrate, the power of positive narratives is preferable to challenging negative narratives. A 2017 research report for the NCSEHE led by Jack Frawley, *Indigenous achievement in higher education and the role of self-efficacy: rippling stories of success* illustrates the power of positive narratives.

The report identified the fundamental importance of creating self-efficacy and a sense of belonging, supported by culturally capable staff and Indigenous community engagement.

Similar considerations of how self-efficacy plays into disadvantage faced by students from regional backgrounds are an important area of focus in raising regional participation rates in higher education.

Motivators and barriers

The framework for analysis of trends and issues in this report is structured as *motivators* and *barriers*.

Motivators are those factors which influence the decision to participate in higher education, beginning with family background, widening out to school influences and broadening still further to include community-wide influences that shape attitudes towards education and employment. Barriers describe factors associated with participation itself; these include the distance that students live from higher education institutions; technology issues relating to access and participation in higher education; and student financial and social support issues.

However, motivators and barriers are not so easily classified into convenient boxes: family background

shapes aspirations, but it can do so positively or negatively; the community can be a source of diversified growth and nourishing culture, or it can be a source of depressing economic decline; and technology in online education can reduce the growth of student numbers on regional campuses, or it can empower isolated individuals juggling commitments to access courses at their time of choosing.

Because motivators and barriers can often be seen as opposite sides of the same coin, areas of challenges can become opportunities and vice versa. For the purpose of providing some meaningful structure to assessing issues in equity in regional education, a motivations and barriers approach will be adopted here, though it is necessary to be mindful of the shifting qualities of this framework.

Motivators

Motivation plays a very important role in shaping outcomes in equity in regional education. Whether it is to know more, do more, learn more or earn more, there is little doubt that motivations and aspirations for change are powerful drivers to overcome barriers.

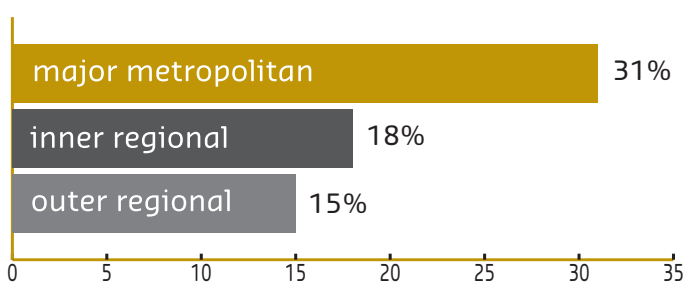
Motivations and aspirations are acquired from an early age and are shaped by family, schools and community. Positive intentions towards university are likely to begin in kindergarten, not just in Year 10 schooling. Supporting activities and systems that

underpin motivation can offer considerable leverage in promoting equity in regional education.

Leaving aside the inherent and hereditary characteristics of individuals, motivations are shaped by three broad factors: the family background of the student, which shapes values and beliefs from an early age; the schools that a student attends, which influences attitudes towards education; and the community in which a student lives, which affects wider cultural beliefs. These collectively play into a learned narrative about life options, which, in the case of many equity students, can be termed the ‘disadvantage narrative’

Family background

International and Australian research demonstrates that family background, particularly education levels, is a strong predictor of educational aspirations and outcomes. This is particularly pertinent in the case of regional education in Australia where higher education attainment levels are far lower for 25 to 64-year-olds than those in metropolitan areas.



Percentage of 25 to 64-year-olds who have completed higher education

A 2017 research report for the NCSEHE by a team led by Buly Cardak from La Trobe University, *Regional Student Participation and Migration*, found that among 25 to 64-year-olds, 31 per cent in major metropolitan areas had completed higher education, compared to 18 per cent in ‘inner regional’ areas and only 15 per cent in ‘outer regional’ areas. This means that on average regional students are significantly disadvantaged when it comes to expected educational outcomes.

The educational and socioeconomic background of parents informs and influences their educational preferences for their children. These connections are illustrated by an Australia-wide study in 2014 by Patrick Lim from the National Centre for Vocational

Education Research (NCVER), *Do Individual Background Characteristics Influence Tertiary Completion Rates?*, which found that young people whose parents express a preference for them to attend university are 11 times more likely to do so.

Research from the Household Income and Labour Dynamics in Australia (HILDA) datasets in 2017 by NCSEHE Research Fellow Paul Koshy (with Mike Dockery and Richard Seymour), found that parents in regional areas were less likely to expect their child to attend university (8.4 per cent less likely in inner regional areas and 12.3 per cent less likely in outer regional and remote areas) even after adjusting for parental educational background and family characteristics which are known to affect aspiration and expectation in relation to higher education.

These subtle influences in family background shape aspirations and expectations, and this downplaying of higher education is compounded when the two other big motivating factors, schools and community, are taken into consideration.

Encouraging families to be more engaged in schools, education and careers is an important consideration when seeking to leverage educational aspirations. Initiatives that regularly inform parents and students of educational developments, issues and opportunities are likely to enhance student educational motivations and attract the more disengaged families so they become more familiar with the benefits of education and the means of accessing it.

Schools

Low expectations of higher education attainment in families can carry through into primary and secondary school.

There has been a long-established belief that disadvantage is often exacerbated in regional schools because of inadequate resourcing and the difficulty in attracting the best quality teachers.

Some research reports have illustrated compounding disadvantage all the way through life for many regional children and students, as relatively poorly resourced schools play their part in contributing to disadvantage, despite the best efforts of teachers and principals to improve outcomes for students.

Within school resourcing issues, there is a dilemma of whether to create fewer bigger schools that offer more facilities and increased options for students, or operate smaller schools that serve local communities. Economic efficiency may come at a cost of some social dislocation and a marginalisation of smaller communities.

While regional schools and their students often start at a disadvantage compared to their metropolitan counterparts, schools can play a vital role in the transition into higher education, particularly through career advice and school experiences.

A 2017 research report for the NCSEHE led by Wojtek Tomaszewski from the University of Queensland, *School Experiences, Career Guidance and the University Participation of Young People from Three Equity Groups in Australia*, found that positive attitudes towards school, positive relations with teachers and receiving appropriate career guidance were more likely to encourage students to enrol at university and do so at an earlier age. Effective guidance included exposure to university representative talks, career guidance counsellors and informational handouts.

Another NCSEHE initiative, the Building Legacy and Capacity workshop series, led by Nadine Zacharias, was launched in September 2017 with a workshop dedicated to career advice to students in low SES or regional/ remote high schools. The workshop engaged researchers, policy advisors and practitioners who focused on issues in career advice, identified solutions, and those findings will be collated and distributed to all relevant stakeholders.

The importance of schools in career planning and aspirations was also highlighted by another NCSEHE funded report in 2015, *The Impact of Schools and Schooling*, led by Jenny Gore. The report demonstrated early engagement in university open days and careers expos and other information sources resulted in students being better able to know themselves, identify their strengths and interests and, as a consequence, be more confident about pursuing higher education.

The research also highlighted improving the quality of teaching, offering flexible subject options, and enhancing student-teacher relationships.

Taking advantage of social media can be very effective in reaching and inspiring school students to go on to higher education. A recent study into university engagement, *A Social Marketing Strategy for Low SES Students* (2015) was developed by a consortium of universities led by the Queensland University of Technology under the auspices of the Queensland Widening Participation Consortium. This project involved designing a cost-effective marketing strategy for low SES students to increase awareness and raise aspirations towards higher education. A social marketing strategy with career advice to all regional students could be a cost-effective way to increase regional student participation rates.

Community

The economic and cultural identity of community has a strong influence on the educational and employment aspirations of regional students. Economic and social researchers have referred to 'community cultural wealth' frameworks that can be enhanced to expand local capacity and responses to changing economic opportunities and threats.

A few decades ago it was easier to characterise the minimum level of basic business, educational and social services for communities across Australia. However, developments in technology and globalisation have often combined to reduce the economic vitality of communities, narrow the structure of the employment profile and compromise the ideal of universal access to infrastructure.

As many regional communities have experienced a relative or absolute decline in economic activity and service provision relative to metropolitan areas, the morale and aspirations of many regional students has been challenged.

Where local economies have faced hard times, rurality and socioeconomic status often combine to produce educational disadvantage, and individuals' enthusiasm for educational and employment saps away. Sometimes the sheer scale of economic decline can overwhelm the capacity of education alone to turn around a depressed community.

This points to the need for clear analysis of problems followed by appropriate and targeted responses. Every policy or support program comes

with a price and outcomes. Where education support is necessary but insufficient, improving equity outcomes in regional higher education may need to focus on community economic development.

This issue is explored in the 'Creating positive community development through networked regional economies' in the 'Leveraging equity through the network effect' section of this report.

Barriers

The barriers to participation in higher education for students from regional areas can be formidable. In addition to the transitional challenges of accessing and completing university faced by metropolitan students, regional students also face added pressures that compound personal challenges.

The most pertinent barrier is distance, particularly coping with cultural transitions in relocating from a familiar environment to an unfamiliar cultural setting.

The increasing application of technology in education, which is strongly related to distance issues for regional students, can be seen as both part of the problem and part of the solution to many issues in raising equity in regional education. Technology can eliminate jobs or empower people through accessing services. While listed here in a 'barriers' section, technology can be a positive motivator for regional students, provided technology is optimally employed.

Financial support is a third area of focus which may be required to adequately compensate regional students for extra costs associated with relocation and settling into new environments. However, money is not the only answer to supporting regional students, many of whom need social rather than financial support.

Distance

Almost inevitably, the first barrier cited for equity in regional education is that of distance — students leaving a familiar home setting for an unfamiliar physical and cultural environment.

Until now, there has been no clear understanding of the distance regional students have to travel to university. One current HEPPP funded research project awarded to the NCSEHE answers that question. The project, led by NCSEHE Research

Fellow Paul Koshy, is currently investigating the distance to the main campuses for university students across Australia. For students in the mainland state capitals the distance varied between 11 km and 15 km. For 'inner regional Australia' across all mainland states, students had to travel between 48 km and 105 km. Students in 'outer regional Australia' had to travel between 163 km and 310 km. Further afield, students in remote areas had, on average, to travel 539 km, while students in very remote areas had to travel 781 km.

This confirmed earlier research by Grant Cooper and Rob Strathdee, *Access to higher education: does distance impact students' intentions to attend university?* which, though a Nearest University Measure (NUM) proved that distance to university is an issue for students in regional areas.

Recent NCSEHE funded research reports led by Buly Cardak and Jenny Gore find students from regional areas are more likely to see distance as a significant barrier. Cardak et al. found that even after controlling for socioeconomic status and secondary academic progress, regional students are 4.7 per cent less likely to attend university than students in metropolitan areas. They are also 5.8 per cent less likely to graduate from university if they do get there. This implies that the average high school student from regional Australia is 10.2 per cent less likely to graduate from university than the city student even after controlling for academic performance and family background.

There remains a gap between regional aspiration, attainment and enrolments compared with students from metropolitan areas.

One often underestimated consequence of this gap between aspirations and attainment which has its roots in the 'tyranny of distance' is the question of the 'navigational capacity' of regional students. A

2014 report into regional secondary school students by Trevor Gale and Stephen Parker, *Widening Participation in Australian Higher Education*, found that while 67 per cent of students aspired to go to university, only 18 per cent had a sibling who had been a university student and only 10 per cent of their parents had a university degree. Yet, almost half of all students indicated that they rely on their family for information about post-school options, which clearly raises questions about the navigational capacity of many students when faced with a finding their way in a new institutional culture.

This issue is supported in the report by Jenny Gore which found 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 an important consideration for widening participation.

Unravelling the reasons behind the gap between capabilities and outcomes for regional students is critical to minimising barriers.

In a NCSEHE funded 2017 report, *Understanding the completion patterns of equity students in regional universities*, a research team led by Karen Nelson from the University of Sunshine Coast demonstrated that lower regional student completion patterns were less likely to be due to 'student deficits' or 'institutional deficits' and were more driven by four other sets of factors:

- geographical influences (such as poorer access to services, travel times and costs, and preferring to remain living locally)
- financial influences (significant for students who face higher costs in attending a university, especially if they are from low SES backgrounds, and which create other issues such as time spent in secondary jobs and work stress)
- emotional influences (a complex array of personal issues concerning ties with those left behind as well as developing new ties in a new setting)
- sociocultural influences (which include different experiences in cultural capital of a lack of proficiency and familiarity with cultural codes and institutional practices).

While the four factors of disadvantage identified by Nelson et al.—geographical, financial, emotional and sociocultural—were separated to enable

thorough analysis of issues, all originate from, or strongly relate to, the issue of distance and ensuing separation that regional students face when leaving home to study at university.

Technology

Technological change, particularly in communications, is making a major impact on education, as it is in all other industries.

The main tensions, trends and debates have revolved around three areas: online versus on-campus platforms; fixed versus flexible time delivery of knowledge; and traditional lectures versus multimedia communications that are more accessible and not limited by time or space. These tensions can be acute for regional students and education policymakers working in regional education.

The response to these issues could be summarised in three points: there is no demarcation between 'good' and 'bad' technology; all new technology developments offer opportunities in high education; and it is therefore a question of managing, balancing and optimising the benefits of technology.

Online learning is one area that has positive and negative possibilities for regional students but, managed well, online education has a critical place in widening access and participation for a diverse range of students from regional areas. However, both retention and completion rates for online distance students are currently considerably lower than among those enrolled as on-campus students.

A 2017 study by NCSEHE Equity Fellow, Cathy Stone, *Opportunity Through Online Learning*, investigated online learning systems in Australia and United Kingdom to produce a clear, comprehensive and concise guide to maximising the beneficial outcomes of online learning.

The report produced seven recommendations for government and educational institutions to develop best practice and 10 national guidelines for improving student outcomes in online learning. This combination of improving institutional frameworks, combined with practical implementation techniques makes a contribution to international online education, with relevant application to students in regional Australia.

Student financial and social support

Many research reports have cited the high cost of attending a university for regional students, plus the accompanying disruption to life in having to relocate, find new accommodation and settle in to a different environment, all of which deter regional students from participation in higher education.

However, as the report by Nelson et al. demonstrates, there are also emotional and sociocultural influences that can be a major issue for some students. Overall, the relative magnitude of financial versus social issues is difficult to ascertain and is ultimately a personal and subjective matter for students.

For policymakers and equity practitioners, the issue is one of increasing clarity around the relative importance and magnitude of the need for financial and social

support and making the right support available through the most efficient and effective means.

A specific financial issue is that current Australian regulation of student income support programs such as Austudy prevents prospective students from accessing benefits unless they can prove they have been living independently for 14 months. This means that regional students often have to postpone university entry to meet this requirement in the form of a gap year.

Another consideration is that while young people are less likely to enrol at university, they are more likely to enrol at a later age. This is supported by the work of teams led by Tomaszewski and Cardak which found a growing proportion of regional mature age students relocating to attend university, particularly major cities.

Pathways and priorities

This *NCSEHE Focus* has demonstrated the complexity of wide-ranging interacting factors that shape the disadvantage faced by regional students in higher education.

Seeing parts of the problem and advocating partial solutions will never address the problem as a whole, which can only be fully understood and remedied within a broad framework that takes a comprehensive and coordinated approach to tackling the challenges.

The essential challenge is to get the big picture architecture right by assessing the relative

magnitudes of the drivers and shapers of regional Australia; and then clarify the specific issues and develop targeted responses to the numerous pieces of the 'regional equity jigsaw'.

As noted earlier, regions vary widely in the kind of drivers that shape individuals and communities; consequently, it is preferable to recognise the numerous variables and their changing dynamics and think along the lines of constantly fine-tuning two pathways:

- synchronising local needs with appropriate supports
- creating leverage from the network effect.

Synchronising local needs with appropriate supports

While there is a general understanding among all stakeholders in higher education that there is a diversity of both challenges and responses to them, the actual complexities seem to be underestimated, under-appreciated and under-researched.

There is insufficient clarity as to what students really want and need, and how that information and support is best delivered. Synchronising needs and supports is crucial to achieving improved outcomes for equity in regional higher education.

Reimagining educational success

There is an assumption that success in equity in higher education for regional students means that they are represented at university in proportion to their representation in the Australian population as a whole. But, as this *NCSEHE Focus* report has illustrated, the landscape is changing in regional Australia, undermining assumptions of ‘what equity looks like’.

In addition to the documented challenges for regional students, there is the issue of ‘regional brain drain’. Regional students are attracted away from home to universities, only to graduate and find there are no suitable, local jobs that match their qualifications so they relocate to urban centres.

This leakage of some of the brightest minds from the country to the city depletes regional areas of youth, vitality, skills and, worse, maybe hope.

A critical consideration here is the relationship between qualifications and jobs — there is a misalignment between what universities have to offer and what regional jobs are available.

As the section on creating positive community development through networked regional economies demonstrates, qualifications alone don’t create jobs — significant employment is created by networked local economic development policies and programs.

This inevitably leads to the long-running issue between ‘university versus VET’ as regards to which pathway is most appropriate in which situations.

While many businesses and industries in regional Australia require university education, many regional jobs are focused on practical and hands-on skills, which a well-funded forward-looking VET course may be better placed to provide than university.

Competitive tension between the two pathways would be lessened if nested courses of study, offered sequentially by different institutions and recognised by all higher educational institutions, allowed for greater transition between the VET and university sectors, as well as a higher recognised status for VET.

There is an opportunity to create more and better VET courses, in conjunction with all regional

stakeholders, to develop regional economies with education playing the role of a catalyst.

Some of the difficulties in transitioning between the VET and university were investigated in a 2017 report for the NCSEHE led by James Smith, *Identifying strategies for promoting VET to higher education transitions for Indigenous learners*.

High university attendance by regional students isn’t always the right indicator of success. What works in skills development and what is relevant to shaping the lives of people in regional Australia is what matters most.

An alternative perspective on these issues is that regional students educated at universities (and schools) in entrepreneurial skills will create jobs in regional areas. There are quite a few assumptions that underlie that perspective. While there are merits to this entrepreneurial argument, the ‘elevate the VET pathway and harmonise it with university’ approach is likely to produce better outcomes because it is more likely to be generated by, and relevant to, local needs.

Ultimately, both initiatives — a parallel and equal VET sector and the teaching of more entrepreneurial skills in all schools and higher educational institutions are required.

The efficient allocation of resources

The efficient allocation of resources is critical to securing the best outcomes for regional students in higher education. To know something is being done right you need to measure the *efficiency* and *effectiveness* of what you do.

- Efficiency is doing things in an optimal way, such as producing a good or service at the lowest possible cost.
- Effectiveness is getting the best possible outcomes from what you do so you achieve goals and objectives.

In short, efficiency is about doing things right, while effectiveness is about doing the right things. However, it is possible to be efficient but not effective. Optimum results come from both doing the right things and doing them well.

The issue for equity in regional higher education is to determine whether we are doing the right things and doing them well.

There are many variables that make up the drivers and shapers producing issues and challenges, which then prompt interventions to support regional students. But how do we know we are doing it right and doing it well?

It is possible to allocate more resources to an issue, but if those resources are allocated in a sub-optimal way, efficiency and effectiveness will not be maximised, and allocating more resources to a goal simply results in progressively diminishing returns.

To know how well equity measures work it is necessary to measure and evaluate what we do. It is necessary to measure 'inputs' (for example, money and human resources), 'outputs' (for example financial support and number of programs), and 'outcomes' (for example the proportion of students in higher education and the level of skills in a local or national economy).

To apply these considerations to equity in higher education requires: improved levels of reporting of data on regional students and the measures to support them; standardisation or reporting across institutions so that data is consistently defined and therefore comparable between institutions; and transparency in providing that information so it is freely available in a timely manner.

In addition, to turn information into intelligence requires: a comprehensive quality research program that is focused on trends, issues and solutions; a well-resourced national centre to evaluate research programs; and a process for maximising the 'network effects' of sharing information and intelligence on data and equity support programs.

The Department of Education and Training is currently addressing these issues in a wide range of projects that reform the HEPPP, focusing on three components: participation, partnerships and the National Priorities Pool (NPP).

One project, the development of a national HEPPP Evaluation Framework, will structure and guide overall evaluation of the HEPPP, as well as quality improvement and impact evaluations of

HEPPP activities. The framework will support the development of an evidence base to establish the impact of HEPPP funded equity interventions. It will be implemented in 2018.

Other NPP projects will examine equity research, widening participation initiatives, ranking of universities in equity performance, publishing of NPP research projects and a review of equity groups.

At a much more focused level, the NCSEHE has sponsored some research into program evaluation.

A 2015 research report, *Understanding Evaluation for Equity Programs*, led by Ryan Naylor of the University of Melbourne examined efficiency and effectiveness considerations in the design, planning, monitoring and evaluation of equity support programs to achieve best practice, producing a practical advice to help others deliver better outcomes.

Another important consideration in the efficient allocation of resources is innovation in the targeting of access and participation programs and the dissemination of that information to encourage best practice across Australia.

A comprehensive tabulated summary of regional case studies in access and participation programs was incorporated into the NCSEHE submission to the 2017 *Independent Review into Regional, Rural and Remote Education*.

Six key themes were identified to illustrate how targeted programs can effectively tackle specific issues in regional Australia, leading to efficient and effective outcomes:

- Building aspirations — Programs are specifically targeted at disadvantaged groups to encourage their engagement and develop aspirations leading to the transitioning of students into higher education.
- Working with communities — Community outreach is particularly important where there are low levels of experience and familiarity with higher education and, therefore, low levels of knowledge and attraction to further education opportunities.
- Working with schools — Schools are the prime institution and focal point from which 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.

- Programs that focus on equity groups — This includes regional students that may belong to other equity groups.
- Programs that focus on areas of study — These programs are useful in providing facilitative support to students with a specific interest or passion but who may find it difficult to navigate their own way into a course. Examples include

science, education, dentistry, astronomy and film and animation.

- Innovation in program delivery — 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.

Leveraging equity through the network effect

Widening participation in higher education for regional students clearly presents a multidimensional challenge. The response to this challenge has been a big increase in funding for equity access and participation programs, largely funded by the HEPPP, and these have made a substantial contribution to equity in higher education.

However, it is possible to build further on HEPPP funded initiatives. Two areas of the network effect stand out for further development: maximising the value in information sharing; and cooperation in the delivery of access and participation programs.

Maximising the benefit of the network effects in information sharing

One important dimension to the creation, dissemination and further development of access and outreach programs is communicating the insights into what we know is working so that policymakers, researchers and equity practitioners can avoid 'reinventing the wheel' and be abreast of the constantly changing best practice models for supporting equity in higher education.

The value of communication is frequently overlooked. Maximising the network effects in equity requires programs that are, where possible, measured and evaluated; a nationally respected independent source of providing and disseminating equity insights; and higher education institutions that are receptive to adopting best practice in equity programs.

Through two publications, the NCSEHE has compiled 70 case studies in equity access and participation, illustrating some of the most innovative developments: *Access and Participation in Higher Education: Outreach-Access-Support* examines 39 case studies; and *Partnerships in Higher Education*, provides a further 31 additional examples of working partnerships across Australia's 37 public universities.

A third publication in the series, *Higher Education Participation and Partnerships Program: Seven Years On*, is due for release in November 2017.

As the NCSEHE's submission to the *Independent Review into Regional, Rural and Remote Education* illustrates, there is a wide and growing range of innovative programs that support access and participation for students from disadvantaged backgrounds, including regional backgrounds.

Much of the information on equity and access programs is fragmented: universities generally act alone, without reference to an overarching enabling strategy or other educational institutions; it is difficult to compare the efficiency and effectiveness of programs; and there is no central source of information on programs, new developments and best practice.

This raises three questions which form part of an ongoing dialogue in the equity sector in which the NCSEHE has been engaged:

- What are the hallmarks of good access and retention programs?

- How do we evaluate these programs?
- How do we disseminate the information on best practice in programs?

Cooperation in the delivery of access and participation programs

The effectiveness of access and participation programs can probably be further increased by taking a cooperative and coordinated view of their planning and implementation rather than seeing them, as many universities do, as a mixture of an equity program and a commercially branded marketing campaign.

One good example of a cooperative program that reaps the benefits of network effects is the Queensland Widening Participation Consortium which is focused on students from low SES, regional and Indigenous backgrounds. The program is designed to improve the participation of students from these equity groups in tertiary education through a consortium of nine universities, each of which has partnerships with multiple schools, community groups and organisations.

The consortium is based on school outreach, focusing on a broad range of activities with Years 6- to 12, that includes demystification and awareness raising, on-campus experiences, curriculum, enrichment, career development, and information on access, scholarships and financial support. The participating universities designed a collaborative, non-competitive, learner-centred approach, eliminating gaps and duplication across the state and fostering high quality evidence-based practices.

In 2013, almost 450 schools from all regions of Queensland were engaged in the program, with approximately 50,000 students taking part in activities including on-campus visits, school-based workshops and seminars and career development activities.

Outcomes have included positive impacts on student engagement with school and interests in pursuing further study. The partnerships have matured with schools and universities sharing greater trust, confirmed in a survey in which a greater number of students believe it is possible for them to go to university. This cooperative model has positive applications for all areas in regional Australia.

A networked consortium can more easily develop cost effective access and participation programs likely to produce improved outcomes for equity in higher education for regional students.

Creating positive community development through networked regional economies

The aspirational challenges that regional students face are often reflective of broader systematic disadvantage, the cumulative effect of which saps the energy to set and achieve positive goals on an individual and community level.

As the Discussion Paper for the *Independent Review into Regional, Rural and Remote Education* (2017) notes, improving outcomes for regional students is significantly affected by economic and social trends, many of which militate against equity in education in regional Australia.

These trends include the closure of local services such as banks, post offices and local hospitals, and reducing the vitality of communities as well their economic viability as jobs are lost. The mechanisation of farming and the increase in the size of farms has led to bigger but fewer farms and less people engaged in farming. The growth in school sizes has brought benefits, but at the cost of school closures. The globalisation of markets through information and communications technology has brought benefits to regions, but at the expense of local retailing and services as goods and services can be bought online. Additionally, the growth of major cities has generated economic, social and cultural advantages making it harder for regional towns to compete and this has cascaded down from regional towns to smaller remote communities.

None of these trends and issues are new, but their ongoing nature has created a hollowing out of many communities that reduces resilience, leading to a slow spiralling down in economic and cultural vitality. Education alone will not reverse these trends, but it is part of the answer.

Reversing economic and cultural challenges requires a networked approach to regional economic development in which education plays a facilitating role. Positive community development often springs from building on existing community strengths, such as local industries and businesses

and geographical and natural features, and developing new related skills, as well as community and externally focussed networks to grow local economies. In regional economic development strategies, this 'bottom up' locally inspired growth is usually complemented by 'top down' provision of strategic infrastructure assets which can support local economic development.

Education can play the role of catalyst to promote regional regeneration and growth. Schools and universities can develop partnerships with regional economic development authorities to promote regional and local economic futures projects focused on building local skills that leverage regional economic advantages to better create economic development, industry expansion, regional branding and employment and population growth.

Numerous education research reports mention community linkages but a wider and more comprehensive approach to community development with education playing a more prominent and engaged role might provide more impetus to local economic development as well as raising participation rates of regional students in higher education.

One aspect of an education-inspired community-led recovery is the potential for regional education institutions at all levels to promote the entrepreneurial skills, strategic thinking, networking and individual drive to create new businesses in regional areas. Encouraging students to explore innovation and technology development in the context of hands-on real-world possibilities by engaging with local businesses allows students to see the links between opportunities and challenges, and the connections between the classroom and the economy.

Leadership in equity issues

Promoting equity in higher education is an ongoing challenge that requires persistence and innovation, and above all, leadership. The NCSEHE works alongside, and frequently in partnership with, a number of research centres that contribute to the informed opinion and policy capacity that facilitates the emergence of equity champions.

The Equity Fellows Program, funded by the HEPPP and managed by the NCSEHE, is making

a significant impact on leadership in equity in only its second year of operation. The Fellows undertake strategic, high-profile leadership projects, targeted sector-wide at improving the access, participation and success in higher education of students from disadvantaged backgrounds. Fellows spend a part of their Fellowship working in the Australian Department of Education and Training facilitating mutually beneficial engagement between the Department and the sector as a way of exchange and leadership issues. Bringing together researchers, policymakers and practitioners helps close the loop between all three groups, leading to a positive cycle of informed growth across equity issues.

The 2016 Equity Fellows—Nadine Zacharias, Cathy Stone and Erica Southgate—built a strong foundation for the 2017 Equity Fellows — Matthew Brett, Louise Pollard and James Smith.

In their first national Equity Fellows Forum presentation in November 2017, in addition to making presentations on their own projects, the 2017 Equity Fellows are looking to use the opportunity to collectively advance the equity agenda by exploring three themes that link their projects with still wider considerations: the deeper question of the philosophy of equity; the efficacy of equity policy and program design; and better implementation through turning ideas into practice. These three themes demonstrate the kind of penetrative forward-thinking that seeks to facilitate breaking new ground for researchers, policymakers and practitioners.

While none of the 2017 Equity Fellows projects focus entirely and exclusively on regional students, all three projects are relevant to regional equity issues: performance and accountability (Matthew Brett); overcoming barriers impeding university access (Louise Pollard); and strengthening the evaluation of Indigenous higher education programs and policies (James Smith).

The themes being raised at the Equity Fellows Forum in November 2017 reflect many of the issues raised in this report.

Initiatives in policies and programs that promote equity in regional equity leadership would assist the generation of informed contributions to the national discussion about promoting equity in higher education in regional Australia.

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