UNE
UNIVERSITY OF
NEW ENGLAND

UNE Submission to the Senate Rural and Regional Affairs and Transport Committee

Rural and Regional Access to Secondary and Tertiary Education Opportunities

The University of New England welcomes the opportunity to submit its views to the Senate Rural and Regional Affairs and Transport Committee on the both the current status and future of secondary and tertiary education opportunities in rural and regional communities.

Key points for the Committee to consider:

- That the provision of a robust and high quality education network in rural and regional communities is vital to Australia's future;
- That the financial commitment required of rural and regional families to provide access to secondary and tertiary education is greater than metropolitan families;
- That there are fewer employment opportunities for students studying in rural and regional communities which affects their ability to support themselves while studying;
- That the future of education in rural and regional communities is dependent on strong collaborative links between institutions and clear articulation between sectors and providers.

Terms of Reference a, b and f:

a. the financial impact on rural and regional students who are attending metropolitan secondary schools, universities or TAFE;

b. the education alternatives for rural and regional students wanting to study in regional areas;

f. the educational needs of rural and regional students;

UNE response:

The University of New England is a regional university located in Armidale in north western NSW (a small city of approximately 24,000 people). UNE's mission has not changed since its foundation as a college of the University of Sydney in 1934 and its formal establishment as an autonomous University in 1954, namely, to provide access to quality higher education for students from rural and regional areas, as well as students from metropolitan areas. The university fulfills this mission in two ways.

Firstly, UNE offers an outstanding on-campus experience that includes residential accommodation that is accessible, convenient, and affordable and which also provides pastoral care and other support for students, including sporting and cultural activities. UNE specialises in providing facilities for students who have to leave home to attend university.

- 84% of on-campus students who commenced a first degree have home addresses that are more than 60 km from UNE.
- 26% of on-campus commencing students are of low socio-economic background as defined by educational and occupation (ABS SEIFA).

Secondly, UNE provides distance education courses that are particularly suited to students who wish to remain in their communities for work, family, or economic reasons.

- 21% of distance education students who commenced a first degree in 2009 are of low socio-economic background as defined by educational and occupation (ABS SEIFA).

UNE offers a wide range of courses, including most recently Medicine, which cover the majority of fields of study that are popular with rural and regional students. UNE continually monitors student demand for courses across the State and is responsive in exploring opportunities for serving its communities by offering new courses in areas that are in growing demand by students. Since 2008 over 60 new or amended programs of study have been developed (including the Joint Medical Program with the University of Newcastle, the Bachelor of Social Work, and the Graduate Certificate in Rural Science -Agricultural Consulting). All new programs include a rural focus to meet the needs of regional and remote Australia. New courses recently introduced, and courses that have been significantly revised, account for 24% of the top 100 courses by student demand at UNE.

Students only need to go to metropolitan universities from our regional communities if they wish to study courses that UNE does not offer. These fields include engineering, architecture, dentistry, and veterinary science, for example. However, for many students, the reasons for choosing a metropolitan university are not based on the availability of courses. A large proportion of regional students who relocate to metropolitan areas do so for social reasons or out of preference for a metropolitan university and not because they are required to do so to find the course of choice. We contend that greater opportunities for part-time employment may also be a factor in the relocation of regional students to metropolitan areas.

For students who need to re-locate from our regional communities, the costs of accommodation and living are significantly higher in metropolitan areas. This additional cost is only necessary if it is required to access a course that is not available in a regional university.

The scope and impact of the new Commonwealth measures for access to tertiary education are broader than just support for students and direct financial resources for universities. In particular UNE supports the introduction of mission-based compacts. The University trusts that a UNE Compact will allow us to negotiate on special regional requirements, specific targets, and community engagement and social inclusion programs that require Government support. UNE expects to introduce and expand upon existing programs and projects, within the framework of the Compact that will enable the university to work more intensively with its regional communities to raise aspirations for higher education, especially among low SES and Aboriginal young people, who currently are at risk of not completing secondary school. This is an exciting but challenging opportunity that UNE wishes to embrace.

UNE will also work intensively with secondary schools in the region. UNE already operates in many schools across Australia with the Quicksmart program that very effectively assists schools in working with children who need positive intervention and assistance in developing literacy and numeracy/mathematical skills. This program, developed at UNE by the National Centre of Science, Information and Communication Technology, and Mathematics Education for Rural and Regional Australia (SiMERR National Centre,), has a proven success in assisting schools to reverse the decline in academic performance by assisting underperforming students in developing higher levels of achievement in numeracy and literacy in the vital middle years of schooling.

SiMERR was established utilising a collaborative model involving groups of academics in each state or territory. Additional information on SiMERR can be found at appendix 1. I also understand that copies of the SiMMER National Survey “Science, ICT and Mathematics Education in Rural and Regional Australia” have already been forwarded to the Committee.

Term of reference c and e

c. the implications of current and proposed government measures on prospective students living in rural and regional areas;

e. the adequacy of government measures to provide for students who are required to leave home for secondary or post-secondary study;

UNE Response:

Students of low socio-economic background (as defined by education and occupation – ABS SEIFA)

For students of low socio-economic background, the proposed measures offer positive opportunities.

- Changes to the **Parental Income Test** for eligibility for the Youth Allowance will open the opportunities for student income support to a beneficial degree. There had previously been concerns that the income test was too low for equitable access, and this was forcing many students into seeking eligibility through other criteria, especially the workforce participation criteria. This parental income test measure is therefore positive.
- Availability of **Commonwealth scholarship** support for all Youth Allowance holders, irrespective of the amount of income support in the Youth Allowance is a positive development. Previously the number of scholarships was limited and UNE could only offer scholarships to less than 20% of students who were in receipt of Youth Allowance. It is estimated that 200-300 additional students at UNE will benefit from this change.
- The income and scholarship support measures are adequate for students who are required to leave home to attend university, where the student is in receipt of the full Youth Allowance income support. For these the combined benefits of Youth Allowance and Commonwealth are estimated at more than $15,000 for the first year and more than $12,000 for subsequent years. Costs of living for students who choose on-campus residential accommodation at UNE in 2010 will be between $8,500 and $10,000 for full board and lodgings for the 32 weeks of semester, leaving funds for textbooks and other educational and living costs. Students in private town rental accommodation may find the need to supplement their income with paid employment after the first year.

- The decrease in the Relocation Scholarship from $4,000 in the first year to $1,000 in subsequent years will be particularly noticeable for students close to the family means test limit for the Youth Allowance, and who as a result receive a small stipend from the Youth Allowance. For many of them the drop in the Relocation scholarship in second year will mean finding additional income from part-time work, to the detriment to their academic success. ***UNE recommends that the Relocation Scholarship be revised to provide more support in the second and subsequent years to reduce the necessity for students to obtain part-time work, especially where the opportunities for part-time work are limited.***

Rural and regional prospective students who are not in the low socio-economic group

For these students the new measures are not quite so positive.

- Restricting the **workforce participation criteria** for eligibility for Youth Allowance requires prospective students to work full-time for at least 18 months to establish independence. This requirement will work against potential rural students who have to leave home to attend university. While UNE understands that the background for this change is that the Bradley Report demonstrated that significant numbers of students with quite adequate family incomes, particularly metropolitan students, have been gaining access to Youth Allowance via this means.

  UNE understands, and is broadly in agreement, with the intention to focus the available resources on those most in need. However, there is a residual concern that prospective rural students at the low end of the middle socio-economic group are inadequately provided for where they must leave home to attend university. UNE believes that there may be a segment and that may be worse off in terms of their overall personal monetary resources than students from more disadvantaged backgrounds. The Farm asset test is an allied matter.

- **Farm Asset Test.** A second distinct issue involves prospective students whose families own rural properties of considerable asset value which do not yield high cash flow. This point is particularly important at a time when there have been some years of drought. The farm asset test cuts in at an asset value of $2.286 million. This is not an asset value that will produce a sustainable family income in many rural areas, and it is submitted that a more graduated application of this means test, with a final cutoff at a higher figure would be a fairer outcome.

Other related matters: National University

The Government allocated $2 million for the conduct of a feasibility study into the potential merger of two regional universities – Southern Cross and Charles Sturt – with campuses at the north and south extremes of NSW. With Southern Cross University recently pulling out of the possible venture, it is reported that approximately $1.5 million of the funding allocated to the study remain unspent.

It has long been the view of UNE that this money should have been allocated to projects which enhance the collaborative hubs and spokes model of teaching and learning between regional institutions. Such a model lends itself perfectly to the provision of education opportunities in regional and rural Australia. The withdrawal of South Cross University from the proposed merger with Charles Sturt University provides the Government with an opportunity to now do so.

Supporting and funding increased collaboration between existing regional universities, and between regional and metropolitan universities, on a strategic basis is a viable alternative that is worthy of serious consideration. Such an approach will not only be a more cost effective model for the Government through increased resource efficiency but will harness the collaborative strengths of regional and metropolitan universities, improve the capability of staff and students through closer contact with colleagues in cognate disciplines in other institutions and, most importantly, maintain an essential educational and economic presence in key regional locations. Such an approach will also fulfil the longstanding imperative of providing education and economic opportunities in regions across Australia where history and politics has already determined the location of various institutions.

As a regional university UNE is already successfully embracing the philosophy of strategic collaboration regionally, nationally and globally. Access to a university for regional students was one of the key aims of the establishment of UNE in the 1930s. The University continues to support the aspirations and needs of rural and regional Australians in its immediate geographic region, yet is also well known for its programs in distance education; some 80% of our students study by distance education.

By harnessing and combining the power of communication technologies and the associated strategies for social interaction, the University of New England is positioning itself to provide enhanced access to its own courses, to work with other institutions to provide opportunities for students not otherwise available through UNE, and to assist students, of any age and career stage, gain access to programs not otherwise available at other institutions. There is no reason to believe that this would not serve as a strong, viable model for a national, regional, accessible University.

In addition to the academic importance of regional universities, their contribution to regional communities in respect to economic and socio-cultural inputs cannot be underestimated. Aside from the obvious, immediate effects of economic contribution by a major employer, a strong regional university is also fundamental to encouraging young people to remain in their local community and infusing their professional skills into the community. There is a real and strong connection between vibrant rural and regional communities and the presence of a local university. Hence, talk of mergers and the potential loss of autonomy, identity and diminished presence, deserves consideration of a serious, real and currently available, cost-effective alternative, such as institutions like UNE.

SIMERR NATIONAL CENTRE

In 2004, the National Centre of Science, Information and Communication Technology, and Mathematics Education for Rural and Regional Australia (SiMERR National Centre) received an establishment grant from the Australian Government. This remains one of the largest education grants awarded in Australia and indicates the importance attached to issues concerning rural and regional education.

SiMERR was established at the University of New England (UNE) in Armidale, a rural centre, utilising a collaborative model involving groups of academics in each state or territory (referred to as state/territory Hubs). SiMERR carries out research and professional development activities with a focus on improving the learning outcomes of all Australian students, especially those studying in rural and regional Australia.

Impulse for Initiative and Challenge

The rationale for the SiMERR National Centre was based on compelling evidence from many sources (e.g., Programme for International Assessment (PISA), Thomson, Cresswell, & De Bortoli, 2004; Thomson & De Bortoli, 2007; the Trends in International Mathematics and Science Study (TIMSS), Zammit, Routitsky, & Greenwood, 2002; and national (MCEETYA Benchmarks) basic skills test information, MCEETYA, 2007) concerning the performance of students in rural and regional Australia, about a third of the Australian student population. These data quantified the extent of inequities for rural students in learning outcomes in science and mathematics education.

These findings underscore the most significant challenge currently facing education in Australia – equity of educational opportunity for all school students regardless of location (e.g., Lyons, Cooksey, Panizzon, Parnell, & Pegg, 2006; Roberts, 2005; Vinson, 2002).

Table 1 illustrates one example of the data currently available. Here the columns illustrate PISA summary data for Australia in 2003 and 2006 considered in terms of location. There are significant differences in achievement between students in these location groups.

Table 1. PISA 2003/2006 Mathematics achievement (mean scores) by location (Thomson, Cresswell, & De Bortoli, 2004; Thomson & De Bortoli, 2007)

Average Score	**2003**	**2006**
Australia Overall	524	520
OECD countries	500	498
Metropolitan Australia	528	526
Provincial Australia	515	508
Remote Australia	493	468

Goals and Intervention Strategy

As a consequence of the types of data shown in Table 1, SiMERR was established to carry out strategic and applied research, and work with rural and regional communities to achieve improved educational outcomes for all students in the areas of science, information & communication technology (ICT) and mathematics.

The *vision* of the work of SiMERR is formulated in can-do-statements for parents, students and teachers:

– Parents can send their children to rural or regional schools knowing they will experience equal opportunities for a quality education;
– Students can attend rural or regional schools realising their academic potential in Science, ICT and Mathematics; and
– Teachers can work in rural or regional schools and be professionally connected and supported.

To achieve this mission, SiMERR targets research projects and teacher professional learning. SiMERR programmes identify and address important educational issues of (i) specific concern to education in rural and regional Australia involving the underperformance of rural students, and (ii) national concerns to education across Australia to maximise high levels of teaching competence and student-learning outcomes in the critical subject areas of mathematics, science and ICT.

Implementation and Communication

Members of SiMERR have been, or are currently, involved in approximately 140 projects within the four disciplinary areas, *science education*, *ICT education*, *mathematics education,* and a fourth area that draws from these three foundation areas, *student diversity.* While some projects involve small numbers of schools (often in remote areas), teachers, and students, other projects span across regions or state jurisdictions.

Many projects have national relevance, not only for rural areas but also more broadly for all Australian students. It has become clear that in working to address the needs of rural students, the findings and solutions that are emerging offer ways of enhancing student-learning outcomes in metropolitan areas as well.

Brief descriptions of five large-scale projects are provided below.

1. National Survey of Issues in Teaching and Learning Science, ICT and Mathematics in Rural and Regional Australia (Lyons, et al., 2006).

This project involved extensive questionnaire surveys of teachers and parents of students from primary and secondary schools across Australia. Every provincial and remote school, and a sample of metropolitan schools, in Australia was invited to participate in the survey. Focus group interviews were conducted with a representative sample of teachers, parents and students from rural schools in each state and territory.

The survey data provided critical information about key themes that are considered to be limiting student outcomes in mathematics for rural and regional Australia as well as offering some practical ways of addressing these issues. The recommendations focus on several key areas including:

- staffing issues such as attraction and retention of teachers;
- teacher training and qualifications;
- professional development needs of teachers;
- resource material needs of teachers;
- learning opportunities and experiences of students.

2. Identifying and Analysing Processes of Groups of Teachers Producing Outstanding Educational Outcomes in Mathematics (Pegg, Lynch, & Panizzon, 2007)

This project identified and explored factors leading to outstanding mathematics outcomes in junior secondary education for students across the ability spectrum. The focus was on the characteristics of and processes used by groups of teachers. Mathematics faculties achieving outstanding student-learning outcomes were identified by drawing upon extensive quantitative and qualitative data-bases. The study involved intensive case studies to identify faculty-level factors. Seven common themes are reported and these are the strong sense of team, staff qualifications and experience, teaching style, time on task, assessment practices, expectations of students, and teachers caring for students.

The research highlighted a number of potential important issues for schooling into the future around the need:

- To provide opportunities to help teachers develop the knowledge and skills necessary to exercise effective leadership in the role of faculty leader;
- For early career teachers to work with and learn from experienced mid and later career teachers;
- To facilitate strong group interaction within faculties;
- For relevant school-based professional development;
- For high subject-knowledge standards for new and current teachers;
- To create a culture in which teaching and learning, rather than behaviour management, dominates all classrooms; and
- To develop common goals among teachers, students and the local community.

3. QuickSmart intervention program for middle-school students performing at or below National Numeracy Benchmarks (Pegg & Graham, 2005; 2007)

This research program is referred to by the generic title *QuickSmart* because it teaches students how to become *quick* (and accurate) in response speed and *smart* in strategy use. This teaching program sought to improve automaticity, operationalised by students' fluency and facility with basic mathematics facts for those students below national benchmarks. The program is described as a fourth-phase intervention. This fourth phase refers to intensive focused instruction associated with the students being withdrawn in pairs from class for three periods a week over a 30-week time-frame.

One significant feature of the *QuickSmart* intervention is that it is directed towards students in their middle years of schooling where there has traditionally been a dearth of focused and intensive support available. The results found that improving automaticity in basic skills frees up working memory processing, enabling students to undertake more advanced tasks that were not specifically focused on during the intervention program and these positive effects are still in play two years after the intervention.

4. Maths: Why Not? Unpacking reasons for students' decisions concerning higher-level mathematics in the senior secondary years (McPhan, Pegg, & Morony, 2007)

The project considers why many capable students are not choosing to take higher-level mathematics in the senior years of schooling. This lack of numbers runs counter to the national need for a highly skilled workforce to remain competitive in the global knowledge economy. Australia is facing a multi-faceted skills shortage just when there is a need for more students to leave school with a sound grounding in mathematics.

The results provide an important "toehold" to a number of critical issues underpinning the learning and teaching of senior mathematics in Australia. More importantly, it offers a means of connecting the learning and teaching of mathematics from the perspective of current and projected skills shortages. The project offers new insights into the problem and a platform for constructive national action.

5. Collaborative innovations in rural and regional secondary schools: Enhancing student learning in mathematics and science (Panizzon, & Pegg, 2008)
This project created networks of rural teachers to form learning communities in science and mathematics. Each team of teachers in a particular school identified an important issue they believe was impeding student learning within their own school. This issue became the focus of the professional learning.

Teachers were supported at an optimum time with help varying from school to school depending on the needs of the staff and students. Support was provided by (i) consultants with expertise in curriculum, assessment, and quality pedagogy visiting and working with the teachers at key points during the eighteen months of the project, and (ii) teams of teachers met on a few occasions to share their experiences with other teachers involved in the project. These meetings were crucial because they facilitated opportunities for teachers geographically isolated to meet collectively and communicate their ideas, challenges and successes. The model of professional learning used was seen to be highly relevant and cost-effective for schools that were widely separated by distance.

Evaluation and Impact

Evaluation of SiMERR occurs through two separated but related processes. The first concerns sets of agreed milestones concerning progress on a six-monthly basis. These targets were mutually agreed to and offer a broad context within which SiMERR attempts to address its mission. The second process is related to individual projects undertaken by academics associated with SiMERR, including those internally financed through targeted funds within the Centre or from successful contracts with funding bodies outside of SiMERR.

Tying down "impact" in such a diverse area is fraught with problems. At the moment the description of impact (because SiMERR has only been established for a few years) is more about starting processes and activities that set the ground for future successes. This is provides a context so that achieving the goals of the Centre are more likely to happen, for example, building a strong and viable infrastructure. Clearly, at the heart of the work of SiMERR is building a network where teachers, educators, universities, education authorities, and communities can reflect and initiate actions on improving the current situation in rural areas for teachers and students.

There are clear signs that projects are having an influence. A critical purpose of these approaches is to have an evidential basis from which informed policy decisions can be made on how funding and actions might best target the real learning needs of different groups of students. In terms of the five projects outlined above there is now:

- Recommendations to advise Federal policy as it relates to addressing inequity in rural students learning outcomes in Mathematics as a result of the SiMERR National Survey;
- Published reports identifying characteristics of faculty departments achieving outstanding educational student learning outcomes across the student ability spectrum;
- Recommendations to guide Federal Government policy decisions the on ways to encourage and facilitate more senior secondary students to undertake high-level mathematics courses;
- Solid evidence that students (including Indigenous students) who have been performing at or below national benchmarks in numeracy for many years can be supported and show considerable improvement in basic mathematical skills and understanding;
- Evidence of the nature of the successes for widespread rural schools in solving issues relevant to them in the teaching of mathematics and how this professional learning can be encouraged and sustained.

Space precludes further elaboration, however, as a result of SiMERR activities there is now: a large number of research activities ($ millions) that have been awarded to academic groups (SiMERR Hubs) to support rural schools, teachers and students; a stronger national awareness about rural concerns in education with rural education issues having a higher media presence; and stronger support for national professional teaching associations to provide more targeted professional support for teachers in rural locations.

Challenges and Further Steps

SiMERR has embarked on a challenging journey. It has sought to influence positively the educational outcomes of rural students whose educational opportunities do not match those of their metropolitan counterparts, and to reduce the professional isolation of teachers. This has been pursued through targeted research programs to inform education policy, teaching practice and pedagogy, professional development programs, and teaching and learning interventions for teachers and students.

Engendering and maintaining a climate of collaboration and trust among universities and their staff, education jurisdictions and their schools, teachers and communities around the country is critical to the success of the SiMERR operation. The capacity to engage schools to participate in activities is built on networking with teachers, education authorities and professional education organizations. These fruitful connections are important in building trust and rapport between schools and researchers, and they also facilitate discussion and collegiality. They are also critical players in attempts to move the findings of research to scale.

The model of collaboration developed by SiMERR is in contrast to the highly competitive practices of universities in other fields of endeavour within Australia. It is recognised as important for the long-term that individual universities are supported to maintain and celebrate their own integrity, identity and successes as well as those achievements of the collective.

The needs of schools, teachers and students in rural Australia require national action and commitment. The track record of SiMERR over its short period of existence has already shown that universities across Australia working in partnerships with communities and education jurisdictions can make a difference. Nevertheless, sustaining and further developing such collaborations is not easy and will require an investment of funds over a sustained period.