



**NCSEHE**

National Centre for Student  
Equity in Higher Education



**Curtin University**

# SUBMISSION TO PRODUCTIVITY COMMISSION

Public Inquiry into the Education Evidence Base

**Make tomorrow better.**

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## About the National Centre for Student Equity in Higher Education

The Australian Government has established the National Centre for Student Equity in Higher Education (NCSEHE), currently based at Curtin University, with the purpose 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.

## Submission

### Introduction

The NCSEHE advocates for an education policy that is based on a systematic, evidence-based approach to development, formulation and evaluation. Importantly, this should involve a consideration of the entire education experience of people as school performance ultimately affects higher education and employment outcomes, with the latter being in part, a measure of the success of initiatives at earlier stages of intervention.

For this reason, the NCSEHE has a particular interest in the *National Education Evidence Base* Issues Paper and the potential policy outcomes of the Inquiry. To this end, this submission makes the case for the inclusion of higher education in the national education evidence base.

### Equity in Australian Higher Education

The NCSEHE undertakes research and program analysis into the higher education equity groups reported in Table 1 below – ranging from low socioeconomic status (low SES) students, students with disability, Indigenous students, regional and remote students, students who are women in non-traditional areas (WINTA) and students from non-English speaking backgrounds (NESB). Table 1 reports the enrolment share of Australian undergraduates for various years between 2007 and 2014 and the reference share of the Australian population of each equity group on the basis of the 2006 ABS census.

Table 1: Historic Equity Group Higher Education Participation, 2007 to 2014, Undergraduates, Table A Providers, Various Years and 2006 Population Reference Share

Student Equity Groups	2007	2010	2012	2014	Reference Share (2006)
Low SES	16.2%	16.7%	17.3%	17.9%	25.0%
Students with a disability	4.4%	4.8%	5.2%	5.8%	8.0%
Indigenous*	1.3%	1.4%	1.4%	1.6%	2.3%
Regional*	19.1%	19.1%	19.1%	18.9%	25.4%
Remote*	1.0%	1.0%	0.9%	0.9%	2.4%
WINTA	19.4%	18.6%	18.0%	17.8%	N/A
NESB*	3.2%	3.1%	3.4%	3.6%	3.7%

**Source:** Australian Government Department of Education and Training (2015) and author calculations.

**Note:** \* National reference share calculated from reported state and territory population reference shares using 2006 population weights. WINTA is the exception in that its target does not correspond to a national population share. The figures reported here are WINTA enrolments as a percentage of total enrolments and do not correspond to in-discipline targets.

Clearly, although some progress has been made in recent years in raising participation levels among low SES students and students with disability, all equity groups in Australia are under-represented in higher education in comparison with their population share.

The reasons for this are complex and relate to an array of disadvantages and compounding effects and interactions over time. As many aspects of marginalisation in higher education are present well in advance of entry points to the higher education system, the NCSEHE has an interest in the factors that shape education and labour market pathways and outcomes throughout the education system. These include factors from early childhood and even before, such as intergenerational socio-economic gradients and peri-natal factors.

Further, it is likely that this interaction of evidence is of interest to researchers looking at early childhood, primary school and adolescent outcomes as the impact of life events at these ages may only be fully assessed in later life outcomes.

## **The Rationale for the Inclusion of Higher Education in the *Education Evidence Base***

In view of the above point, there is great scope to enhance the current data collection practices and the accessibility of collected data for research and evaluation. This is a concern of the Inquiry. The Issues Paper summarises Australia's education objectives as being to equip young people with:

“the tools necessary for effective social and economic participation, for their own wellbeing and quality of life, and for the benefit of the community as a whole” and “to succeed in an increasingly competitive world” to enhance national productivity (p.6).

This is a clear statement that the fundamental objectives of the early-childhood and secondary education systems are to provide a foundation for post-secondary social and economic success. So while the scope of the Inquiry is given as issues relating to children aged from birth to five years (early learning) and secondary school to Year 12, the NCSEHE would like to emphasise the importance of widening the interpretation of that scope to include how outcomes at those stages in turn translate to post-school outcomes. In particular, this includes the importance of higher education participation in this discussion, both as an outcome from education and also as a key marker of outcomes from beyond secondary school. This is the case for a number of reasons outlined below.

### **Rising Higher Education Participation**

With 37.3 per cent of Australians aged 25 to 34 having university bachelor degree qualifications or higher in 2014 (Koshy 2016), higher education as an outcome is now an issue of central importance to any examination of longitudinal educational performance. The expectation that this rate of attainment will at the very least stabilise over the near future is reasonable (Bradley 2008). In preliminary research, Dockery, Seymour and Koshy (2015) find that parental aspirations for children's participation in higher education are high, with 62 per cent of parents in a sub-sample from the Household, Income and Labour Dynamics in Australia (HILDA) study answering either

‘Yes, definitely’ or ‘Yes, probably’ in response to the question ‘Do you think this child will go onto university when they finish high school?’, asked in the most recent wave of HILDA.

In many ways, higher education is being perceived to be the standard path for post-compulsory education, both in Australia and across the OECD group of countries where Australia is ranked seventh out of 35 countries on the basis of higher education attainment in the 25 to 34 year old cohort (OECD, 2014). In this context, higher education attainment outcomes begin to emerge as important outcome measures, occupying a place alongside secondary academic performance and completion indicators.

### **The Development of Education Performance Data Sets**

The NCSEHE concurs with many of the sentiments in the Issues Paper, including the role of school-based assessments and of standardised tests such as the Programme for International Student Assessment (PISA) and the National Assessment Program – Literacy and Numeracy (NAPLAN) tests; and of a greater linking of these items in a broader evaluation framework. Of course, these tests by themselves do not necessarily provide standalone measures of educational development. Rather, they provide an indication of development at a point in time and allow for comparisons with later years and different cohorts.

Importantly, such data sets are increasingly useful when interpreted in the context of lifetime outcomes. Indeed, outcomes on such educational constructs are of interest only because they are designed to - and assumed to - provide some indication of how well youth are being prepared for post-school education and for the world of work amongst other socioeconomic factors. For this reason, it is critical to know how these measures actually do translate into post-school success and whether there are important differences across society and disadvantaged groups in particular, in how they relate to post-secondary outcomes. Further, it is important to monitor those relationships on an ongoing basis given that they are unlikely to remain constant in the face of technological change and other social and labour market developments which provide new challenges in achieving equitable outcomes in Australia. This ongoing evaluation is needed in order for education practice, assessment and policy to be responsive to changing social and economic environments and to the changing needs of our young people.

### **Data Linkage is Taking Place**

In view of the multiplicity of factors affecting educational outcomes among children there has been an increasing push for the collection and use of longitudinal data to examine outcomes. In the Australian context this has primarily involved the use of surveys such as HILDA and the Longitudinal Study of Australian Youth (LSAY) to examine educational outcomes. However, this trend is also a power driver for data linkage. For instance, the linking of secondary and higher education data sets is increasingly taking place in Australia. By way of example, a recent research study undertaken through the NCSEHE and made possible by linking Australian Curriculum,

Assessment and Reporting Authority (ACARA) data to University Academic records challenged the link between the socio-economic status of schools and students' achievement at university (Li and Dockery 2015). That research also confirmed that the Australian Tertiary Admissions Rank (ATAR) is a very robust statistical predictor of later academic success, something that is commonly challenged. The NCSEHE can nominate a number of collections for a more systematic linking of data, including: NAPLAN, university applications data from tertiary applications centres (TACs) around Australia and higher education and vocational training providers.

Data matching also facilitates an analysis of longer term trends and relationships within education and between school, training and outcomes. For instance, a recent study in the United States by Chetty, Friedman, and Rockoff (2014) analyses the long-term effects of teachers in New York City in terms of the earnings of their students as adults 20 years later, using a wide variety of socioeconomic controls and a teacher ranking index based on the improvement in subjects' test scores as children. The authors find that an 'average teacher' raises the lifetime earnings of students by a quarter of a million dollars in present value terms in comparison with a teacher in the bottom five per cent of the teacher quality ranking. This analysis was only made possible through the matching of school record and taxation data.

It is important to note that analyses of the type described above provide the basis for the development of new indicators linking outcomes indicators to educational input data. Data linkage provides powerful and rich datasets for the purpose of evidence-based policy making, and is cost-effective.

### **Education Policy is Increasing Evidence-Based and Data Driven**

Finally, the use of data and data linkage in education is not taking place in a policy vacuum. Education decision-makers are increasingly looking for evidence of outcomes from education interventions in order to shape future policy development. This is also true of system-wide reporting. A project undertaken by the NCSEHE for the Australian Government Department of Education and Training (Pitman and Koshy, 2015) outlines a proposal with three delivery options for an Equity Performance Framework (EPF). The EPF tracks higher education equity group students (e.g. low socio-economic students; remote and regional students; and Indigenous students) over the course of their careers in universities and through outcome collections such as the new Graduate Outcomes Survey (GOS). In addition, the first tier of reporting for the EPF looks at 'context' indicators including equity group and general population outcomes in primary and secondary tests such as NAPLAN with a view to providing a base of understanding of the challenges facing the Australian educational system.

Adjunct to this development is the emergence of funding for direct interventions in Australian higher education, notably through the Higher Education Participation and Partnerships Program (HEPPP), which has provided \$780 million in participation funding to universities between 2010 and 2016 (including partnerships funding over 2015 and 2016) with additional monies for large

partnerships between 2010 and 2013. A core feature of HEPPP funding is the provision of university outreach programs in Australian primary and secondary schools in order to improve access for equity students, primarily low SES students. The NCSEHE (2013 and 2014) provides an overview of these programs. This work has provided another policy context in which the interaction of schools, families and peers as well as administrative systems has mandated the use of data collection and analysis to separate out the effects of various programs.

## **Conclusion**

The NCSEHE argues that for any such evidence base to effectively inform policy and practice, it is essential that it includes data on the actual objectives – post-school outcomes – and the ability to relate post-school outcomes to the various indicators collected during early-childhood education and secondary schooling. This is particularly important for policy to improve access to higher education for under-represented groups and for identifying the factors that contribute to their relative exclusion. It is important that policymakers know how young people's characteristics, education experiences and outcomes translate into post-school outcomes, and how such linkages are changing over time.

The NCSEHE strongly urges the Commission to ensure that the interpretation of the scope of the Inquiry is widened to accommodate key measures of post-secondary education and labour market outcomes and how such outcome measures can be linked to data collected at early-childhood, primary and secondary school levels.



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