



Factors Affecting Higher Education Completions

Introduction

This set of papers seeks to measure the impact that different demographic, social and health factors have on a Commonwealth Supported student completing an undergraduate degree.

The completion of an undergraduate degree has benefits for the individual, the economy and society.¹ However, the financial and opportunity cost to individuals, families and the Australian Government to undertake the study is substantial.² Therefore, it is important to understand factors which may impact on completion rates to ensure policies and programs support individuals.

What we found

Our findings identified a range of factors that affect the completion of a student's studies, which are outlined in the following factsheets and summarised in the infographic.

- [Predicting completion](#) – Combining health, tax, welfare and demographic data with student data improves our understanding of what drives higher education completions. Our analysis is able to predict 2011 commencing student six-year university completions with 81 per cent accuracy.
- [Work and study](#) – Working while studying generates an average increase in six-year bachelor's degree completion rates of 13 and 9 percentage points in both full-time and part-time students, respectively.
- [Disability](#) – After controlling for a number of factors including age, gender, study load, etc., students living with a disability only have marginally lower six-year completion rates.
- [Mental health](#) – All else being equal, students that accessed a mental health service during study have a nine percent lower likelihood of completing their studies.³
- [Gap-year](#) – Students that took a gap-year show no difference in six-year completion rates compared to those who entered university straight after school.
- [Study assistance](#) - Income support increases six-year completion rates on average by six to seven percentage points for full time students and higher for students from disadvantaged backgrounds
- [Aboriginal and Torres Strait Islander completions](#) – Six-year completion rates of undergraduate student Aboriginal and Torres Strait Islander Australians remain lower

¹ Australian Government Department of Education, Skills and Employment (2019) [Benefits of Educational Attainment Project](#), Department of Education, Skills and Employment

² RMIT University. (2018) [Fact check: Do Australian taxpayers subsidise over half the cost of each student's higher education?](#)

than other Australian students. However, undergraduate student Aboriginal and Torres Strait Islander Australians receiving income support are more likely to complete.

- [Impact of multiple equity groups](#) – While people who belong to multiple equity groups have lower completion rates, income support helps overcome this disadvantage, increasing completion rates for those students with low Australian Tertiary Admissions Rank (ATAR) and/or belonging to multiple equity groups.

Objectives

This research aims to measure the impact that different demographic, social and health factors have on a Commonwealth Supported student completing an undergraduate degree. This project is part of a broader piece of work to *Better understanding the impact of health and social factors on the transition from education to work* was undertaken by the Social, Health and Welfare Analytical Unit (SHWAU) and funded by the Data Integration Partnership for Australia (DIPA). The SHWAU is a collaboration between the departments of Education, Skills and Employment, Health and Social Services. The Australian Bureau of Statistics created and hosted an extract of Multi-Agency Data Integration Project (MADIP)⁴ data for this project.

Known factors affecting completion of a bachelor's degree by Australian students

There is a significant amount of evidence already on the influence of student- and institution-level factors that influence completion using higher education student data.^{5,6} From 2006-2015, the dropout rate of first-year undergraduate students from Australian public universities increased slightly from 15 per cent to a little more than 16 per cent.⁷

Evidence of disadvantage, along with personal, systemic, and demographic factors affecting student attrition have emerged. Being Aboriginal or Torres Strait Islander Australian^{6,8}, of low socio-economic status (SES)^{7,8} or having a disability⁷, each reduce a student's chances of course completion. Studying part-time² and attending a regional university² also reduced a student's chances. The aim of this project was to extend that body of research by safely and securely linking student data with other person-level social, welfare and health data that have not been studied before as factors affecting university completion.

Our data and methods

This project used a microdata extract of the Multi-Agency Data Integration Project (or MADIP) with the safe and secure linkage of Higher Education Student data. This project was approved by the DIPA and MADIP Boards and the data was accessed through the secure ABS DataLab environment.

⁴ ABS (Australian Bureau of Statistics) [Multi-Agency Data Integration Project \(MADIP\)](#), ABS, Accessed 09/07/2020.

⁵ DESE (Australian Government Department of Education, Skills and Employment) [Completion rates – cohort analyses](#), DESE, Accessed 09/07/2020.

⁶ Li I, Carroll D (2017) *Factors influencing university student satisfaction, dropout and academic performance*. National Centre for Student Equity in Higher Education. Curtin University: Perth.

⁷ Cherastidham I, Norton A (2018) *University attrition: What helps and what hinders university completion?* Grattan Institute

⁸ Edwards D, McMillan J (2015) *Completing University in a growing sector: Is equity an issue?* ACER.

Using MADIP as a data source allows for detailed microdata for a large number of students, which might otherwise only be available through extensive and invasive surveying. This is the first time in an Australian context that higher education outcomes have been linked to a wide range of data on student’s incomes, health, employment, socio-economic and income support status. The data sources used in this project and their sources are listed below in Table 1.⁴

Table 1. The MADIP data sources used in this project

Data Source	Data Custodian
Census of Population and Housing 2016	Australian Bureau of Statistics
Higher Education Information Management System	Department of Education, Skills and Employment
Personal Income Tax	Australian Tax Office
Pay As You Go Payment Summaries	Australian Tax Office
Social Security and Related Information	Department of Social Services
Medicare Benefits Schedule	Department of Health
Pharmaceutical Benefits Schedule	Department of Health
Registries Death Data	Australian Bureau of Statistics

Our analyses used the statistical inference techniques of descriptive and predictive modelling, and causal inference modelling. More detailed information is available in the *Methodology* factsheet.