

Enhanced demographic and impact reporting of equity cohorts

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Abstract

QUT's Student Equity Reporting Project, which was successfully implemented in mid-2016, integrated information from multiple data sources to make equity cohorts' access, participation and success data readily available to the QUT community. The data informs QUT interventions across the student lifecycle in the areas of access (outreach to schools and communities, recruitment, selection and marketing), participation (transition of the first year cohort and retention by reducing attrition) and success (progress, success and GPA). Capturing meaningful in-time data about commencing and continuing students from disadvantaged backgrounds assists with the continuous improvement of services so that these students have successful and positive experiences.

The reporting infrastructure facilitates effective operational and strategic reporting; evaluation and impact tracking; and the discovery of new knowledge by a wide range of users who have easy access to the information via a self-service approach.

Introduction

For over 20 years, Australian higher education has used the equity framework outlined in *A Fair Chance for All* (Department of Employment, Education and Training, 1990), which focussed on six 'equity groups' and four performance indicators. The equity groups are people from low socio-economic backgrounds; Aboriginal and Torres Strait Islander people; women in non-traditional areas; people from non-English speaking backgrounds; people with disabilities; and people from rural and isolated areas, while the indicators are access, participation, success and retention (both rates and ratios).

These data, which are available at both national and institutional levels, have been used to inform policy, practice and performance. They remain the subject of robust debate regarding their strengths and weaknesses, as evident in 'Student Equity in Australia': Twenty-five years after *A Fair Chance for All* (Harvey et al., 2016).

More recently, the 2017 release of the national evaluation of the Higher Education Participation and Partnership Program (HEPPP) recommended inter alia that a national HEPPP evaluation framework be developed and that performance funding relating to improved outcomes for low-SES students, using the 'success' indicator be introduced (ACIL Allen Consulting, 2017).

The Federal Department of Education's national collection and published statistics provide a platform for institutions to understand their performance; track change over time; and compare their performance to that of similar institutions and to desired targets.

At an institutional level, the groups and indicators are commonly used for local strategic planning. For example, QUT's Blueprint 5 has corporate KPIs for low-SES and Indigenous

enrolment share, and for commencing undergraduate retention (see <https://www.qut.edu.au/about/strategic-ambitions/blueprint-for-the-future>).

It is less common for performance data to be used to assess impact at the level of institution's student support services, which more typically rely on client satisfaction surveys. A recent exception relates to university-provided equity scholarships. Moving Beyond 'Acts of Faith': Effective Scholarships for Equity Students (Zacharias et al., 2016), investigated the relationships between equity scholarships and the retention and success outcomes of recipients at three deliberately different universities, Deakin University, Queensland University of Technology and the University of Sydney, for the academic year of 2013.

The remainder of this paper describes how QUT's Student Equity Reporting Project build a data system which made is possible to extract performance data at the level of student support services, and what is being learned from its application.

National grant, software solutions, and project details

This project was funded by a grant from the 2014 National Priorities Pool of the HEPPP aimed at the development of software to assist universities with equity initiatives. QUT purchased and installed SAP Lumira Agile Business Intelligence (BI) and Public Sector Mapping Agency, Geocoded National Address File (PSMA G-NAF) software, and subsequently designed and built a suite of 41 reports and 181 sub reports.

The IT solution integrates multiple QUT applications used by support areas and elements. This makes it possible to generate reports which reveal the demographic profile (including equity group parameters), and access, representation, attrition, retention, success, GPA and employment data for any cohort of interest. Examples of use across the student life-cycle are outlined below.

Outreach

The integration of data regarding QUT's outreach, recruitment and scholarships applications enables staff to more accurately identify individual low-SES participants in widening participation (WP) outreach programs and enables QUT to more closely align its WP outreach activities with the needs of specific low-SES partner schools.

For example, QUT's Widening Participation team can now generate reports regarding QTAC applications, offers and enrolment data, as well as the equity demographics of students admitted to QUT from the secondary schools that they work closely with. This provides the team with evidence-based data and insights into the effectiveness of the outreach work they undertake with the schools.

Transition in and early intervention

The integration of information from multiple systems and applications and the use of Geocoding software allows for the more accurate identification of equity students and the monitoring of their participation and progress. This helps staff to provide targeted support where appropriate.

For example, QUT's Equity Services communications team can now access data which enables them to provide more targeted communications to commencing students about Orientation programs tailored to specific groups such as low-SES students and 'out of towners'.

The Student Success Program (SSP) supports students from first year to completion by targeting specific 'at risk' cohorts (Nelson et al., 2012). This includes students in equity target groups; students with low GPAs; students who have failed to complete assessment tasks; and students at risk of exclusion. The reports allow this team to capture demographic and impact data from the equity cohorts that they are targeting.

Transition Out

QUT provides careers services including a range of mentoring and placement programs, which support students to transition into degree-related employment.

The project's reports, which include access to the Graduate Destination Survey (GDS) data, provide QUT's Careers and Employment team with demographic information and impact tracking of students attending their service. This helps the team to assess the effectiveness of their service and fine-tune them to optimise students' post-graduation employment prospects.

Snapshot across the support services

As well as enabling individual QUT areas to access data relevant to their service/area, the reports have made it possible to form an overall picture of service demographics and service impact data. This enables staff to determine if students from equity groups are exhibiting help-seeking behaviours and using the support services provided at about the rate of their representation; if they are swamping the support services in excessive numbers; or if they are help-averse and reluctant to seek assistance.

The reports arising from this project indicate that the proportion of clients from each equity group who access each support service is generally in excess of their representation in the overall student population. This is a heartening assurance that low-SES, Indigenous, rural, NESB and students with a disability are using mainstream services as well as targeted services.

The example table below shows a time series for the low-SES cohort's use of ten de-identified services.

Table 1: Percentage of enrolments of low socio economic status students (2012-2016)

Low SES Enrolments	2012	2013	2014	2015	2016
UNIVERSITY	13.1%	13.1%	13.1%	13.5%	13.3%
Service/Support Area 1	18.4%	19.2%	20.3%	22.8%	20.6%
Service/Support Area 2	14.3%	16.6%	20.7%	15.0%	15.3%
Service/Support Area 3	13.4%	12.1%	14.6%	15.9%	14.2%
Service/Support Area 4	23.7%	24.5%	24.5%	22.1%	22.7%
Service/Support Area 5	15.4%	15.1%	16.0%	16.2%	17.1%
Service/Support Area 6	28.9%	27.9%	26.1%	20.7%	17.1%
Service/Support Area 7	10.0%	18.3%	13.0%	13.8%	14.7%
Service/Support Area 8	25.4%	26.3%	26.0%	25.1%	23.4%
Service/Support Area 9	16.3%	17.1%	16.7%	22.7%	24.1%
Service/Support Area 10	-	-	-	16.2%	21.5%

Similarly, the post-service impact as indicated by success, retention and GPA data is available at a glance, as can be seen in the example table of the post-service retention of low-SES clients across ten de-identified services.

Table 2: Retention rate per support area – Equity cohort (2012-2015)

Equity cohort Retention	2012	2013	2014	2015
UNIVERSITY	83.87%	83.71%	83.81%	85.07%
Service/Support Area 1	84.62%	81.20%	80.62%	86.27%
Service/Support Area 2	85.00%	88.29%	86.52%	91.74%
Service/Support Area 3	83.03%	85.67%	82.75%	82.20%
Service/Support Area 4	100.00%	98.94%	96.56%	96.86%
Service/Support Area 5	84.33%	86.21%	83.75%	85.62%
Service/Support Area 6	96.44%	93.43%	95.47%	94.11%
Service/Support Area 7	77.71%	86.45%	81.69%	82.81%
Service/Support Area 8	88.66%	83.69%	86.81%	90.59%
Service/Support Area 9	97.04%	96.99%	96.59%	94.86%
Service/Support Area 10	79.50%	78.71%	83.67%	81.73%

Context-sensitive interpretation

These impact data need to be interpreted with caution, as there are confounding factors affecting these students' success and retention rates. Some very high-quality services appear to have sub-optimal success and retention for the serviced group. This is likely to be precisely because it is the highest-risk cohorts that they are working with. In addition, some of the performance indicators are not useful as individual indicators. This is particularly true of the

low-SES post-code based measure, which was developed to track enrolment shares over time, rather than reveal individual level characteristics such as financial hardship.

QUT is still at the early stages of exploring the best ways to use these data, and at this point the demographic analyses have proven to be more immediately useful than the impact analyses.

Project Objectives and Outcomes

NPP funding covered the purchase of software only. The remainder of the project was made possible due to the collaboration of staff from dozens of QUT areas, powered by the technical skills of Reporting and Analysis Team and the project management skills of the Project Manager. The overall objectives and outcomes are Objective 1 – Data, reporting and evaluation; Objective 2 – Self-service; Objective 3 – Access and security; and Objective 4 – Integration and systems

Key issues for consideration

What is the best way to combine local intelligence, client surveys, and outcomes data analysis, in order to understand and improve the student experience?

Are universities making the best use of the data sources to hand, and/or are new data sources needed?

How can service-by-service data be integrated so that a holistic picture of the student experience is available?

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