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ALIGNMENT OF THE LOW-SES EQUITY TARGET TO HIGHER EDUCATION ACCESS: AN ASSESSMENT

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Student equity in higher education

Target groups and motivation

- Student equity groups:
 - Aboriginal and Torres Strait Islanders, Non-English speaking background, students with a disability, regional and remote, low-socioeconomic status (low-SES).
 - Two motivations: equity and raising participation
 - Larger low-SES and rural & remote groups critical for raising participation
 - Both $\approx$ one-quarter of potential student population
- Equity programs/policies - two challenges:
 - Deadweight loss
 - Supporting students who would have gone to university anyway
 - Substitution effects
 - Increase access at the expense of placements for other students
 - Potentially positive for equity outcomes
 - ✓ **IF** supported students more disadvantaged than displaced students

The low-SES equity group

Definition and target

- What do we mean by ‘socioeconomic status’?
 - Access to and control of social and economic resources
 - Four dimensions (Haller & Haller 2009)
 - Political
 - Economic
 - Social
 - Informational
 - For children & youth:
 - Parental or family background
 - ✓ Key empirical constructs: parental income, parental education, parental occupational status, home resources, neighbourhood SES.

The low-SES equity group

Definition and target

- Definition – the ‘postcode’ measure
 - Based on ABS socioeconomic indices for areas (SEIFAs)
 - Low-SES students defined as being from postcodes containing 25 per cent of the population when postcodes ranked from lowest to highest SEIFA values
 - ✓ SEIFA value for ‘education and occupation’ by postcode as derived from ABS census
- Target:
 - Lift representation of low-SES group in higher education enrolments to 20 per cent by 2035
 - Would still mark an under-representation
 - Improvement on current share of around 16 per cent

The low-SES equity group

Problem of mismeasurement

- Within all postcodes, will be some households of low relative SES and some of high relative SES
 - The ecological fallacy:
 - ‘... simply a misinterpretation wherein an individual-level inference is made on the basis of group aggregated data.’ (Sirin 2005)
- Key research question:
 - What is the potential for deadweight loss and perverse equity effects through substitution effects?

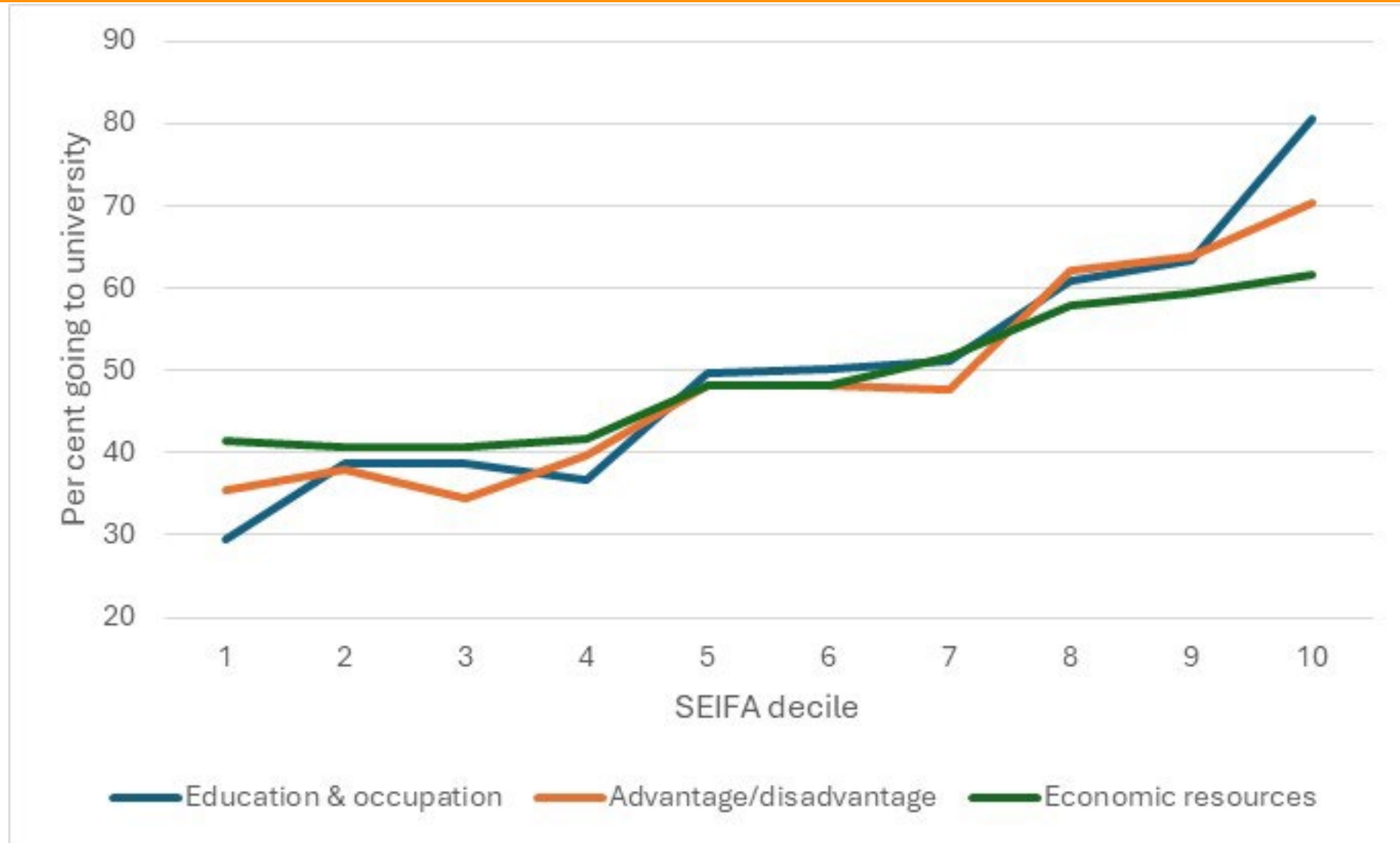
Methodology

Household, Income and Labour Dynamics in Australia Survey (HILDA)

- 24 waves of HILDA (2001-2024)
 - Replicate low-SES postcode measure and merge to household-level data by postcode
 - Model the probability that a 17 year-old will enrol at university at any time by the age of 20
 - 17 year-olds observed from 2001-2021
 - Outcome for 20 year-olds observed from 2004-2024
 - 4,393 youth tracked from age 17 years to 20 years
- Use model to:
 - test the postcode-based low-SES measure as an indicator of higher education access
 - assess the potential equity effects associated with scenarios under which the low-SES target is achieved.

Proportion of 17 year-olds progressing to university by age 20 years

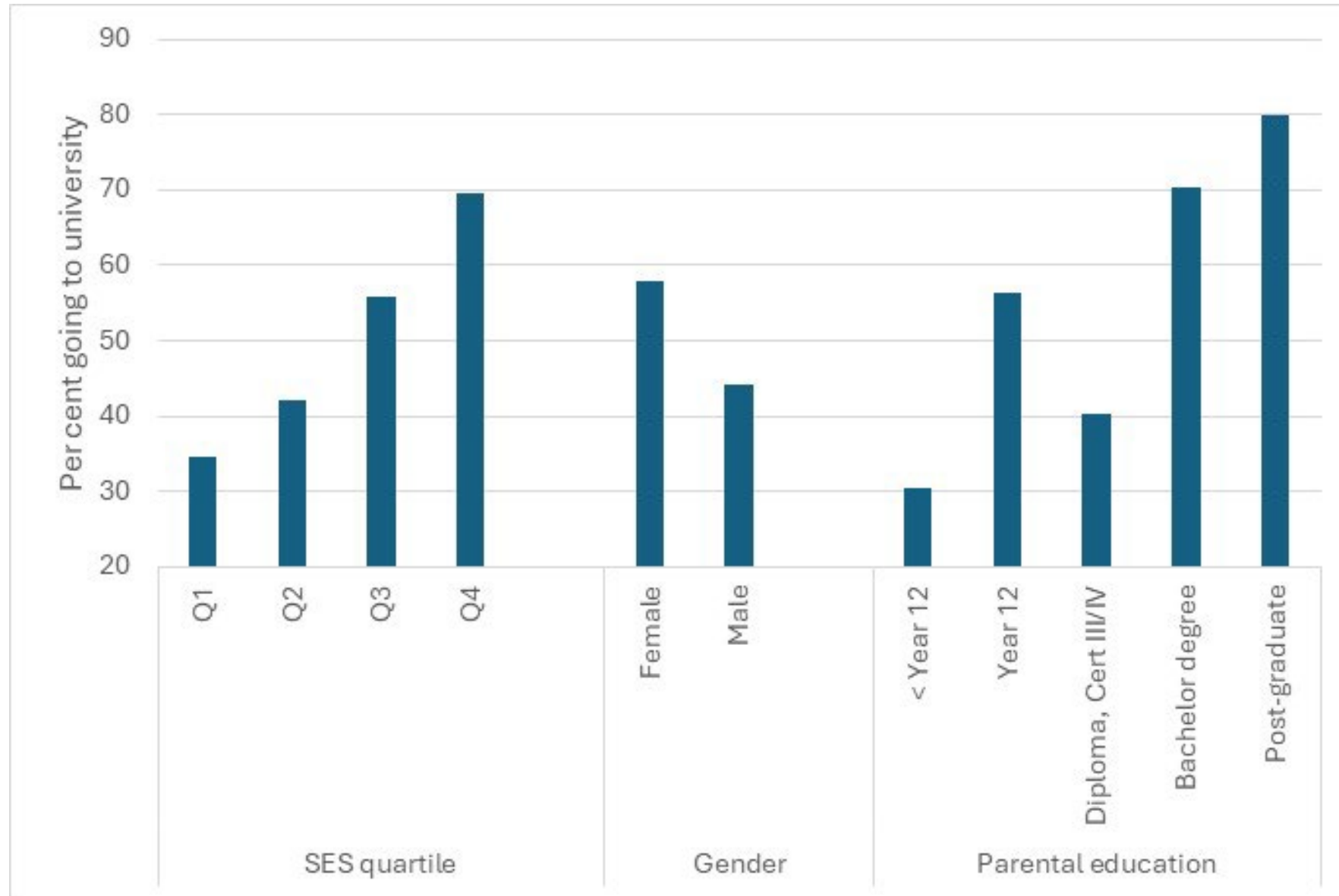
By SEIFA decile



Notes: Calculated using HILDA responding person weights

Proportion of 17 year-olds progressing to university by age 20 years

SES quartile based on postcode measure



Logit model of the probability of a 17 year-old going to university

Odds ratios

	Model 1.1	Model 1.2	Model 1.3	Model 1.4
Youth characteristics				
Male	0.592 ***	0.574 ***	0.501 ***	0.499 ***
English 2 nd language	4.089 ***	3.997 ***	3.387 ***	3.417 ***
Indigenous	0.230 ***	0.295 ***	0.524 ***	0.568 ***
Has LT health condition	0.439 ***	0.453 ***	0.491 ***	0.495 ***
Household characteristics				
SES quartile [1-4]		1.700 ***	1.339 ***	
SEIFA ed/occ decile [1-10]				1.138 ***
Family type				
Two-parent			—	—
<u>Sole-parent</u>			0.852	0.854
Other			0.537 ***	0.55 ***
Remoteness				
Major city			—	—
Inner regional			0.836 **	0.814 **
Outer regional			0.730 **	0.663 ***
Remote/very remote			1.070	0.929
Housing tenure				
Homeowner			—	—
Rents - private			0.531 ***	0.528 ***
Rents - public			0.422 ***	0.462 ***
Other tenure			0.829	0.804
Log HH income			1.045	1.038
Parental characteristics				
Country of birth				
Australian born			—	—
Overseas – English-speaking			1.077	1.095
Overseas – NESB			1.648 ***	1.675 ***
Highest qualification				
<u>Post-graduate</u>			3.138 ***	3.195 ***
Bachelor's degree			2.171 ***	2.149 ***
Diploma/Cert III/IV			—	—
Completed Year 12			1.373 **	1.410 **
Did not complete Year 12			0.693 ***	0.691 ***
Employment status				
Professional/managerial			—	—
Technician/trade			0.510 ***	0.535 ***
Other employment			0.711 ***	0.765 ***
No employment			0.759 *	0.790
Observations	4,391	4,380	4,380	4,391
Percent concordant	47.2	67.2	78.5	78.8
Model Fit Statistics (intercept and Covariates)				
AIC	5,795 ***	5,452 ***	4,935 ***	4,927 ***
SC	5,827 ***	5,490 ***	5,088 ***	5,081 ***
-2 Log L	5,785 ***	5,440 ***	4,887 ***	4,879 ***

Notes: ***, **, * denote estimated coefficient is significant at the 1%, 5% and 10% levels, respectively.

Youth characteristics:

- Gender, Indigenous status, NESB, disability

Household characteristics:

- Postcode SES, remoteness, sole-parent, housing tenure, household income

Parental characteristics:

- Country of birth (Aust, ESB, non-ESB), highest level of education, employment status and occupation

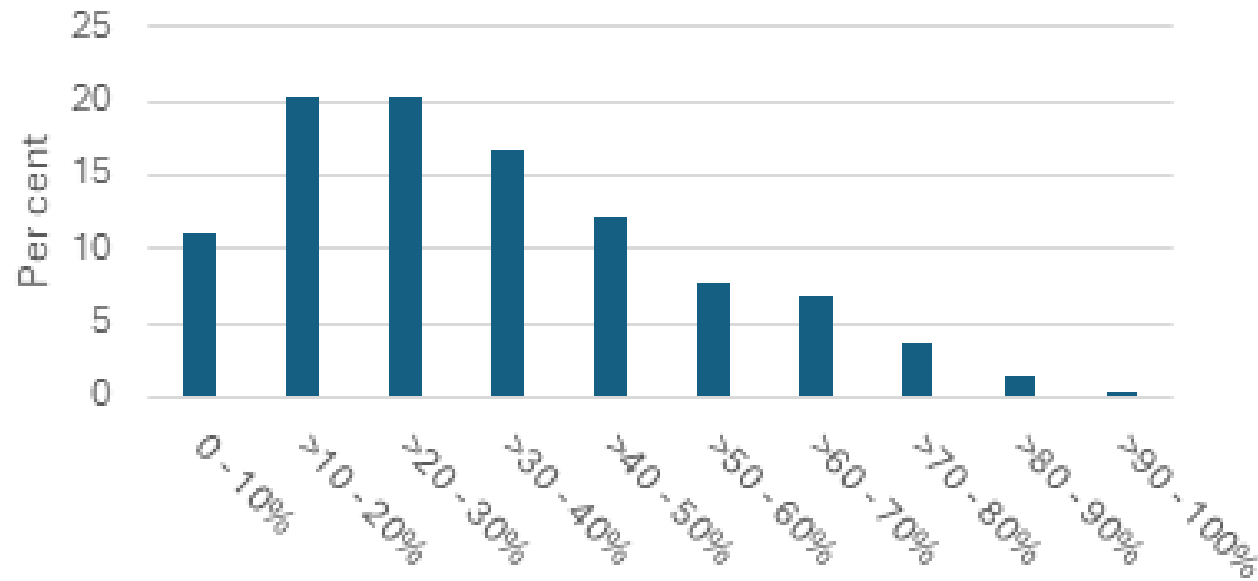
Predicted probability of going to university

17-year olds by SES quartile

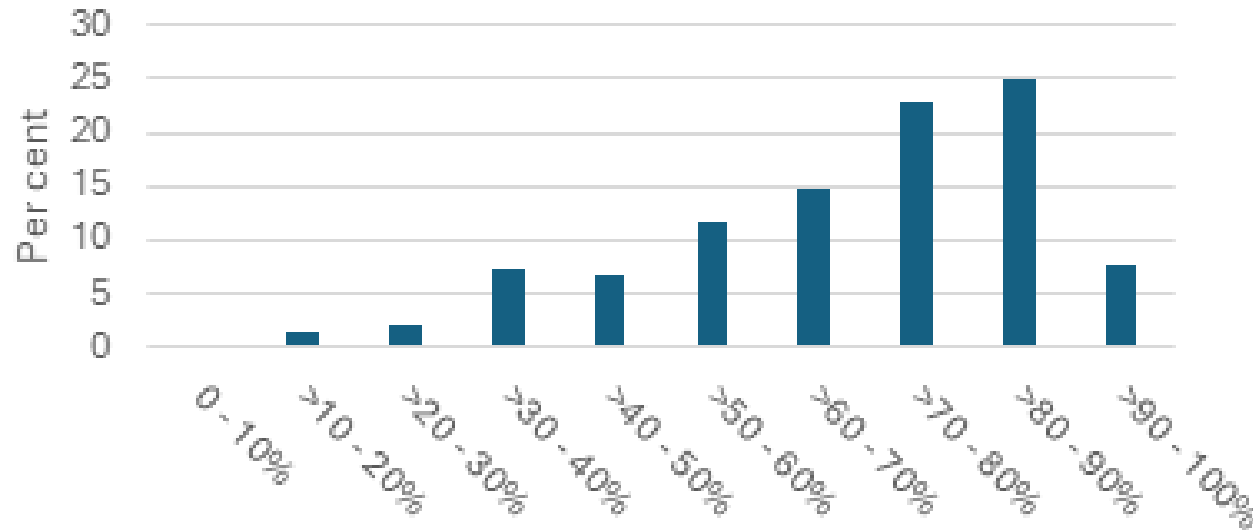
SES Quartile	Observations	Mean (%)	Minimum (%)	Maximum (%)
Q1	1444	32.7	1.5	90.2
Q2	1450	39.4	1.8	95.3
Q3	1362	53.5	2.5	97.2
Q4	1229	67.9	7.8	98.2
All	5504	48.2	1.5	98.2

Notes: Mean calculated using HILDA responding person weights.

Predicted probability: distribution by SES quartile



→ Q1: Low-SES, based on postcode



→ Q4: High-SES, based on postcode

How to achieve the low-SES quota?

Mathematically, three ways:

1. Expansion - purely expanding enrolments of students from low-SES areas, with no reduction in enrolments from the other quartiles.
2. Reduction - purely reducing enrolments in other quartiles (Q2-Q4), with no expansion in low-SES enrolments.
3. Substitution – some combination of (1) and (2), which would see low-SES enrolments rise at the expense of other enrolments.

Expansion scenario

Equity implications

- Assume enrolment rates remain constant for Q2-Q4
 - To reach 20 per cent target for Q1 requires additional 12.2 per cent of the low-SES group to go to university
 - By definition, must come from low-SES population who were not already observed to go to university

Expansion scenario

Equity implications – who would those additional students be?

- 12.2% of low-SES (Q1) 17-year-old population who did not go to university:
 - If drawn at random from that low-SES population
 - Mean predicted likelihood of that group = 27.3 per cent
 - Compares to overall mean of 50.9 per cent = clear equity gain
 - If increase is among those with the highest predicted probability of going to university ***but did not do so***
 - Mean existing probability of that group attending university = 52.9 per cent
 - Higher than overall mean probability (50.9 per cent)
 - Similar to mean for youth from Q3 (55.8 percent)

Substitution scenario

Equity implications

- Achieving 20 per cent low-SES target requires:
 - 9.9 percentage point increase in proportion of low-SES group going to university
 - from 34.7 per cent to 44.4 per cent
 - 2.9 percentage point decrease in the proportion of students from the other three SES quartiles (Q2, Q3, and Q4)
 - from 55.7 per cent to 52.8 per cent
- Assume:
 - ↑ is among low-SES group is from those who were observed not to go to university, but who had the highest predicted probability of going
 - ↓ is among Q2-Q4 who were observed to go to university, but who had the lowest predicted probability of going

Substitution scenario (continued)

Equity implications

- Mean pre-existing probability of going to university for the 'new' low-SES students
 - 55.5 per cent
 - Higher than overall mean of 50.9 per cent
- Mean pre-existing probability of going to university for the 'displaced' students from Q2-Q4
 - 16.5 per cent

Conclusion – efficacy of the low-SES equity target

Likely to generate perverse equity effects

- Figures highlight worst case scenarios, but how would institutions respond to achieve targets?
 - Adjust enrolment procedures to prioritise applicants from low-SES postcodes
 - Outreach activities to schools in low-SES areas
 - Financial assistance/voucher system for students in low-SES areas
- All likely to impact ‘marginal students’ the most

Conclusion – efficacy of the low-SES equity target

Likely to generate perverse equity effects

- In essence: pursuit of the low-SES target is highly likely to expand access for a group already quite privileged, at the expense of a group who defy considerable odds to reach university
 - Injustice will be most stark for youth from Q2
 - But applies generally to youth from disadvantage backgrounds - of whom there are significant numbers across the quartiles of the SES area measure
- Household-based measure of SES likely to result in better equity outcomes
 - Low-SES students perform relatively poorly when they do go to university
 - Highlights need for programs targeted at addressing the actual barriers faced by equity groups
 - ‘Neighbourhood’ effects one possible causal barrier, but likely to be minor

Acknowledgement

This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute).

The research was supported by funding from the Australian Centre for Student Equity and Success (ACSES).

The findings and views reported in this paper, however, are those of the author and should not be attributed to DSS, the Melbourne Institute, or to ACSES.