



Research Partnerships

## SUMMARY NOTE

# NAPLAN Scores as Predictors of Access to Higher Education in Victoria

**This research considers to what extent year 9 NAPLAN scores accurately predict year 12 VCE outcomes that determine access to higher education.**

### Key Findings and Conclusions

- National Assessment Program—Literacy and Numeracy (NAPLAN) Year 9 numeracy and reading scores are strong predictors of students' year 12 Victoria Certificate of Education (VCE) outcomes.
  - A weak student scoring in the bottom 20 per cent in year 9 numeracy and reading has a 9 per cent chance of achieving an Australia Tertiary Admission Rank (ATAR) of 50 or above, a 3 per cent chance of achieving an ATAR of 70, and a 1 per cent chance of achieving an ATAR of 90;
  - For a strong student, scoring in the top 20 per cent on both tests, the corresponding probabilities are 86 per cent, 75 per cent and 38 per cent. This is useful information for planning students' trajectories through secondary school.
- Socio-economic status (SES) also has a substantial though weaker effect on VCE performance, after controlling for prior achievement. Measuring this effect calls attention to the limits that disadvantage places on educational opportunity in secondary school and beyond.

- At the school level, predicted success rates aggregated from individual predictions account for over 82 per cent of the variance in actual school success rates. Large divergences of actual from predicted outcomes are thus potentially informative and can be used to identify both struggling schools that need help and high-performing schools from which others can learn.
- These findings suggest that there may be more to be gained from considering how well year 7 NAPLAN scores predict VCE outcomes.

## Project Background

- Previous analyses have established the internal consistency of NAPLAN test scores in identifying students' core capabilities by demonstrating that early NAPLAN scores are reliable predictors of subsequent NAPLAN performance.
- This research considers how well year 9 NAPLAN scores predict students' subsequent performance on year 12 VCE tests, which shape their future educational opportunities and life chances, and how these outcomes are shaped by socio-economic factors.

## Project Methodology

- This research uses NAPLAN scores for all 67,867 year 9 students in Victoria in 2008, linked by the Victorian Curriculum and Assessment Authority (VCAA) to 2011 VCE outcomes.
- Explanatory variables include standardized year 9 NAPLAN scores in numeracy and reading; indicators for gender, language background other than English (LBOTE) and Aboriginal or Torres Straits Islanders (ATSI); categorical variables describing mother's and father's education and occupation; and a private-school indicator.
- The outcome variables include Australian Tertiary Admission Ranks (ATAR), from which three binary variables are created: achieving a rank above 50, above 70, and above 90.

## Acknowledgments

This summary note is based on the 2014 research report, *NAPLAN Scores as Predictors of Access to Higher Education in Victoria*, by Brendan Houg and Moshe Justman, which can be accessed at: [https://www.melbourneinstitute.com/downloads/working\\_paper\\_series/wp2014n22.pdf](https://www.melbourneinstitute.com/downloads/working_paper_series/wp2014n22.pdf)

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