

Conference Proposal: BSRLM

British Society for Research into Learning Mathematics

Website: <https://www.bsrlm-members.org.uk/pages/15-conferences>

Submission Closing Date: Friday 16th February

Conference Date: Saturday 2nd March (Online)

Title

The postcode lottery: how access to Scotland's most advanced mathematics qualification at school-level impacts students' degree-level performance.

Authors

Nathan Burns¹, Louise Kelly¹, Andrea Sherriff², David Young¹

BURNS et al.

¹Mathematics & Statistics, University of Strathclyde, Scotland, United Kingdom,

²Glasgow Dental School, University of Glasgow, Scotland, United Kingdom.

Corresponding author:

David Young – david.young@strath.ac.uk, 26 Richmond St, Room LT839,
Glasgow, G1 1XH.

Author's email addresses:

Nathan Burns – nathan.burns@strath.ac.uk;

Louise Kelly, louise.kelly@strath.ac.uk,

Acknowledgments

This research was funded by the Bennett PhD Scholarship. Special thanks to Pat Bennett and the University of Strathclyde's Mathematics and Statistics Department.

Abstract

For Scottish secondary school pupils who have already achieved the minimum grades in 'Higher Mathematics' to enter STEM undergraduate programmes but wish to prepare further, there exists 'Advanced Higher Mathematics'. While not required, this qualification is viewed favourably by many higher education institutions and is often specified as recommended. However, schools in Scotland's most deprived areas do not run as many Advanced Higher Mathematics courses as schools in the least deprived areas. This paper shows that within one Mathematics and Statistics department, students with Advanced Higher Maths have higher odds of completing a Bachelor's with Honours degree than those with Higher Maths. This is potentially problematic since the degree-level performance of students is enhanced by obtaining a qualification that was perhaps not available to every Scottish pupil.