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## How do A level subjects and grades determine university choices?

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Paper presented at the  
*British Educational Research Association conference*  
*Institute of Education (London), 23-25 September 2014*

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## **Abstract**

A-levels are the traditional passport to higher education in England. Students' choices of HE institutions and courses are guided, among other factors, by their interests and abilities. This work provides quantitative evidence about the relationship between A-level background, measured by subject choice and attainment, and HE destinations in terms of institution and field of study.

The study used odds ratios derived from multilevel logistic regressions to show university groups and courses where different A-level specialisms were over or under represented, making an allowance for students' characteristics (gender, school type, level of deprivation). Achievement at A-level, on average and in specific areas, was also used in modelling.

The data, obtained from HESA student records, covered English full-time first year undergraduates, with at least three A-levels, studying at UK universities in 2011/12. Students' combinations of A-level subjects were used to infer areas of specialism.

This work showed that A-level specialism and attainment were closely linked to HE destinations. Specifically:

- The strongest link between A-level subject choice and university subject was in medicine, where students had overwhelmingly specialised in science. Subjects on the vocational/academic divide attracted students from a variety of A-level backgrounds.
- Specialising in sciences or multiple areas greatly increased the likelihood of studying at a Russell Group university. Students specialising in applied or expressive A-levels were more likely to study in a University Alliance or Million+ institution.
- Attainment at A-level, both overall and in specific subject areas, had a significant effect on the subject area of university study. The greatest effect of overall grade was observed for medicine and English/Classics.
- Students with an average grade of C or above were more likely to enrol in a Russell Group or 1994 Group university than students with a lower grade, and those with an average of A or above were even more likely to study at a Russell Group university.

The strong effect of A-level specialism on institution group attended, as well as on subject of study, demonstrates the importance of subject choice at 16. If a subject is a requirement for a HE course (or just strongly preferred), students who had not chosen it might be at a disadvantage. Therefore, lack of appropriate advice and the curriculum on offer in schools have implications for access to HE, as students might be steered towards universities and courses that could bring fewer economic/social benefits later in life.

*A revised version of this study has been published:*

Sutch, T., Zanini, N. and Vidal Rodeiro, C. (2016). The effect of specialism and attainment in secondary school on the choice of HE institution and field of study. *Research Matters: A Cambridge Assessment Publication*, 21, forthcoming.

