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# Academic and vocational pathways to higher education and their impact on the choice of institution and field of study

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## **Research background and research questions**

In recent years, there has been a significant increase in most European countries in the numbers of students entering higher education (HE) and of graduates in the labour market. This has partly resulted from the implementation of the 'Bologna process' as a core element of the Lisbon Agenda, which aimed to make the European Union "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion" (European Commission, 2000). In fact, it has been argued (e.g. Keeley, 2007) that a highly educated workforce is needed for a nation to be successful in a global economy. At the same time, widening participation in HE has been seen as an issue of critical importance, as a result of widespread concerns about social justice and social mobility. Internationally, the under-representation of certain groups in HE has been regarded not only as unjust but also as a major contributor to a skills deficit which hinders economic growth (Bougeois, 2001).

Therefore, to ensure the fairness on entry and success in HE, countries around the world tried to develop effective approaches to widening participation (see, for example, Bowes *et al.* (2013) for a review of such approaches in the Netherlands, the United States, Australia, South Africa, Norway and Ireland). However, disadvantaged and non-traditional students were and continue to be under-represented in HE, and particularly in the more prestigious institutions and courses. Recent transnational research commissioned by the Higher Education Funding Council for England (Bowes *et al.*, 2013) points to institutional representation being unequal across socio-economic groups in the HE systems of countries such as the Netherlands, the United States or Ireland. In particular, students from lower socio-economic groups (who normally show lower educational attainment) are less likely than those from higher socio-economic groups to attend highly selective institutions, and more likely to attend 'low-ranked' universities. In the United Kingdom, Chowdry *et al.* (2013) showed that these differences in HE participation were mainly due to the fact that learners from lower socio-economic groups do not achieve as highly in secondary school as their more advantaged counterparts. Other research (OECD, 2012) supported this finding across OECD countries, highlighting that students' social circumstances are obstacles to achieving their educational potential. Furthermore, Payne (2003) and Hayward and Hoelscher (2011) pointed out that, in the United Kingdom, many students from disadvantaged backgrounds held vocational qualifications rather than the more traditional academic qualifications which are seen as the passport to HE.

The European Universities' Charter on Lifelong Learning (EUA, 2008) asked HE institutions to provide education and learning to a growing diversified student population and to adapt study programmes to ensure that they were designed to widen participation. Individual countries responded to these requests in different ways. In particular, in the United Kingdom the commitment to widening participation has encouraged the growth of more and different pathways to HE study beyond the traditional school leaving qualifications.

Since more school leavers than ever before are entering HE and they come from more diverse backgrounds, it is important to know how different types of qualifications (e.g. academic *versus* vocational or non-traditional qualifications) are used by young people to gain access to universities and colleges of higher education. Therefore, the main aim of this work was to identify the destinations (both institutions and subjects of study) of learners progressing to HE with different social and educational backgrounds. Understanding the use of different pathways for progression should enable fairer and more transparent admissions criteria to HE.

## **Methodology**

The data for the analyses carried out in this research covered all English, full-time, first year undergraduates aged 17–19, studying at university in England, Wales, Scotland and

Northern Ireland in the 2011/12 academic year (250175 students). The data, provided by the Higher Education Statistics Agency, contained detailed information on individual students, such as the student's socio-demographic characteristics (for example their gender, socio-economic background and the type of secondary school they attended), the qualifications prior to starting the HE course, the HE institution where the student was enrolled and the course/subject studied.

For each student, information on up to three subjects of study and the subject percentage (*i.e.* the relative contribution of that subject to the university degree) were provided. The HE institutions were grouped in 'mission groups' through which they share ideas and resources regarding issues and procedures in the HE sector. Data at individual institution level was not provided in order to comply with the Data Protection Act (HMSO, 2003).

The issues considered in this research were addressed, in the first instance, through descriptive analyses. Preliminary research had showed that the socio-economic status and the type of the prior institution students had attended could influence the qualifications they had taken prior to university, as well as university participation and choices. For this reason, together with the descriptive statistics, an assessment of the universities and courses in which students with particular backgrounds and qualifications were over- or under-represented was made using odds ratios derived from multilevel logistic regressions. The regression analyses differ from the descriptive analyses in that they take into account students' background characteristics when looking at the probability of attending specific university or pursuing a specific course. This allowed the estimation of measures of association between HE destinations and prior educational background and enabled conclusions to be drawn about the role of secondary school qualifications in providing equality of opportunity at HE level.

## **Results**

Although the percentages of students from vocational and mixed backgrounds have been growing in the last few years, the majority of the first year undergraduates held academic qualifications (80%), approximately 11% held vocational qualifications and the remaining 10% a mixture of both. As expected, the highest percentages of students with academic backgrounds were in prestigious and highly selective universities and the highest percentages of students with vocational and mixed backgrounds were in recruiting universities or universities with former 'polytechnic' status.

Students from vocational or mixed backgrounds were over-represented in fields of study which would allow them an immediate return in the labour market (*e.g.* education, arts, business, administration, sports or subjects allied to medicine). However, they were under-represented in the more academic subject areas (*e.g.* history, geography, languages, medicine or physics). Students with academic qualifications were most likely to study at degree level, whilst students with vocational qualifications were more likely to enrol on foundation degrees.

Using vocational qualifications as a means of widening access seems relatively successful, as students with these qualifications, who tend to come from more disadvantaged socio-economic backgrounds, are increasingly participating in HE. However, the differences in progression routes shown in this research could still be cause for concern as students from certain backgrounds tend to apply to universities/courses that could bring fewer economic benefits. Such students could also be disadvantaged in the labour market.

Other approaches might be needed to increase participation of students from non-traditional backgrounds in the appropriate HE institutions and courses. These challenges may not be confined to the countries in the United Kingdom. Given the increasing globalisation of HE, other European countries would need to consider these issues in order to facilitate the

integration of students from different international, social and educational backgrounds in their institutions.

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