

Studying abroad - benefits and unequal uptake*

Headlines

- Student mobility has a positive impact on career progression and increases the uptake and completion of postgraduate studies, especially for students from lower socio-economic backgrounds.
- The benefits of student mobility are unequally distributed, since individuals with less advantaged backgrounds are less likely to study abroad.
- Student mobility is more common at universities with a greater share of students from advantaged socio-economic backgrounds.
- Student mobility could become more inclusive if grant funding and incentives targeted universities with a high proportion of less advantaged students.

Student mobility and the Erasmus programme

Student mobility in Europe is widely associated with the very popular 'Erasmus+ programme'. The original student exchange scheme was inaugurated 30 years ago, and the number of third-level students taking advantage of Erasmus mobility opportunities each year has increased steadily, from 3,000 in 1987/88 to over 300,000 today.

Besides the Erasmus+ programme, other student mobility schemes exist, for example, in the framework of inter-institutional exchange programmes for language learners.

This brief focuses on 'overall student mobility', which includes both Erasmus and other types of mobility (here called 'other mobility'). 'Degree mobility', which refers to students completing an entire tertiary programme abroad, is not considered. The brief discusses the benefits and patterns of uptake of student mobility. Regarding *benefits*, two countries are compared: Italy and the UK, representing Southern and Northern Europe. In relation to *uptake*, Germany and Hungary, representing Western and Eastern Europe, are added to the analysis.

Around 50% of overall student mobility in Germany and the UK is funded by Erasmus, and more than 80% in Hungary and Italy.

Benefits of studying abroad

Not enough is known about the direct causal effects of studying abroad. This is, first, because there are no recent representative cross-national graduate data available, a problem the European Commission's Directorate-General for Education, Youth, Sport and Culture seeks to overcome with the 'European Graduate Tracking Survey' initiative, which aims to cover all European countries. Second, existing studies using national data tend to neglect the self-selection of mobile students: that is, the fact that students from higher socio-economic backgrounds and with better ability are more likely to partake of student mobility. As a consequence, students who have been mobile are naturally more likely to succeed in their careers than non-mobile students.

*This policy brief has been prepared by Sylke V. Schnepf, Elena Bastianelli, Zsuzsa Blasko and Beatrice d'Hombres. It builds on three JRC reports in press or forthcoming in the JRC Working Papers in Economics and Finance Series: '*Unequal uptake of higher education mobility in the UK*' by S. Schnepf, (2018/6), '*International mobility of students in Italy and the UK: does it pay off and for whom?*' by S. Schnepf and B. d'Hombres (2019/5) and '*How much do universities matter for the socio-economic gap in international student mobility? A comparison across Germany, Hungary, Italy and the UK*' by S. Schnepf, E. Bastianelli and Z. Blasko (forthcoming). This brief can be downloaded from: <https://ec.europa.eu/jrc/en/research/crosscutting-activities/fairness>.

Quick Guide

Erasmus mobility includes all tertiary education student mobility that is funded by Erasmus+. UK data were produced by merging UK national graduate population data with survey data of the UK Higher Education Statistics Agency. The Italian data issue from graduate surveys conducted by the Italian National Institute of Statistics. The Hungarian data derive from the Hungarian Graduate Tracking System. The German data source is the DZHW Graduate Panel. With the exception of German data, the other data sources could be merged with university level ETER data, which provides information on Erasmus mobility. The sample size is lowest for Hungary, with 18,000 graduates, and highest for the UK, with 170,000. The graduates' response rate was very low for Hungary and Germany (at around 20%), but considerably higher for Italy (70%). For most of the UK analyses, population data were used. For Italy, Germany and Hungary, universities with fewer than 100 sampled students were excluded from the analysis.

For results on the benefits of mobility, labour market outcomes are measured between one and four years after students' graduation, which took place between 2006 and 2011 in the UK, and between 2004 and 2011 in Italy. Propensity score matching was used to take selection bias into account.

For results on uptake rates, student graduation years were 2014/15 for the UK, 2007 and 2011 for Italy, 2011 and 2012 for Hungary and 2005, 2009 and 2013 for Germany. The choice to include several less recent cohorts was guided by the need to achieve high sample sizes to satisfactorily measure mobility and socio-economic background at university level. Some results reported in the text derive from multilevel regressions which control for individual characteristics (such as socio-economic background) and employ random university effects.

A recent JRC study on labour market outcomes of students in their home countries of Italy and the UK has taken self-selection of students into mobility programmes into account. (Data on other objectives of the Erasmus programme, such as promotion of tolerance and European values, are not available.) The study reveals a **positive but nuanced effect of mobility on career progression**. While mobility does not seem to impact on employment status one year after graduation, after three years UK graduates and Italian postgraduates who have studied abroad have a **1-2-percentage-point higher chance of being employed** than their non-mobile counterparts. There are also short-term benefits in terms of reaching high-level positions in the UK (a similar measure is not available for Italy).

Mobility increases the uptake and completion of postgraduate studies in Italy (a similar measure is not available for the UK). This increase varies, moreover, according to socio-economic background. Among students with highly educated parents (defined here as students with at least one parent who has completed tertiary education), those who have been mobile are 7-8 percentage points more likely to take up postgraduate studies than the non-mobile. By contrast, among students with less highly educated parents (neither of whom has completed tertiary education), the difference between those with and without experience of mobility on the same measure is a full 15 percentage

points. Given that completion of postgraduate studies is associated with higher incomes, this **differentiated effect of mobility in favour of the socio-economically disadvantaged might help to decrease income inequalities and contribute to social mobility**.

It is likely that mobility benefits depend on country-specific labour market and education systems, a hypothesis that can be explored in greater depth once the European Graduate Tracking Survey data are available.

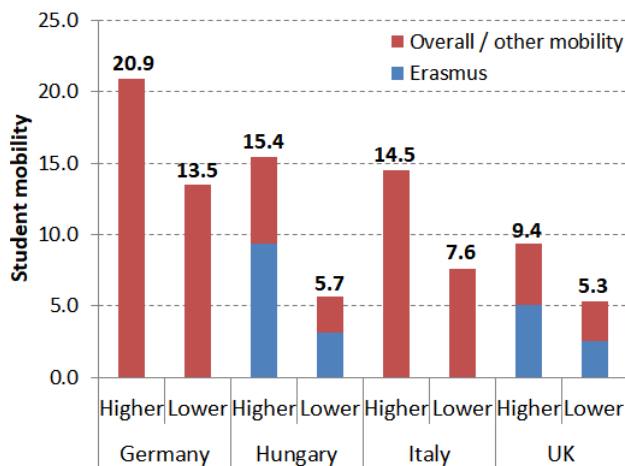
Unequal uptake of mobility

The benefits of student mobility are distributed unequally, for the simple reason that students from a lower socio-economic background are less likely to partake of mobility schemes. Figure 1 shows the uptake of mobility by parental education level. The share of graduates with less highly educated parents varies across countries: 71% in Italy, 53% in Hungary, 49% in Germany and 43% in the UK. In Germany only around 14% of students with less highly educated parents enrol in any mobility scheme, compared with 21% of students with highly educated parents. This is actually the smallest ratio gap in the four countries under study: in the UK and Italy, advantaged students are about twice as likely to study abroad as their less advantaged peers; and in Hungary even about three times. For Hungary

and the UK overall mobility can be separated into Erasmus (blue bars) and other mobility: this shows that the gap between advantaged and less advantaged students in terms of uptake seems to be similar for both types of mobility.

The unequal uptake of student mobility is well established, and current European Commission policy stresses the need to make student mobility more accessible to students of all backgrounds. In July 2017 Tibor Navracsics, European Commissioner for Education, Culture, Youth and Sport, asked ‘How can we make ErasmusPlus even more open to people from all backgrounds?’.

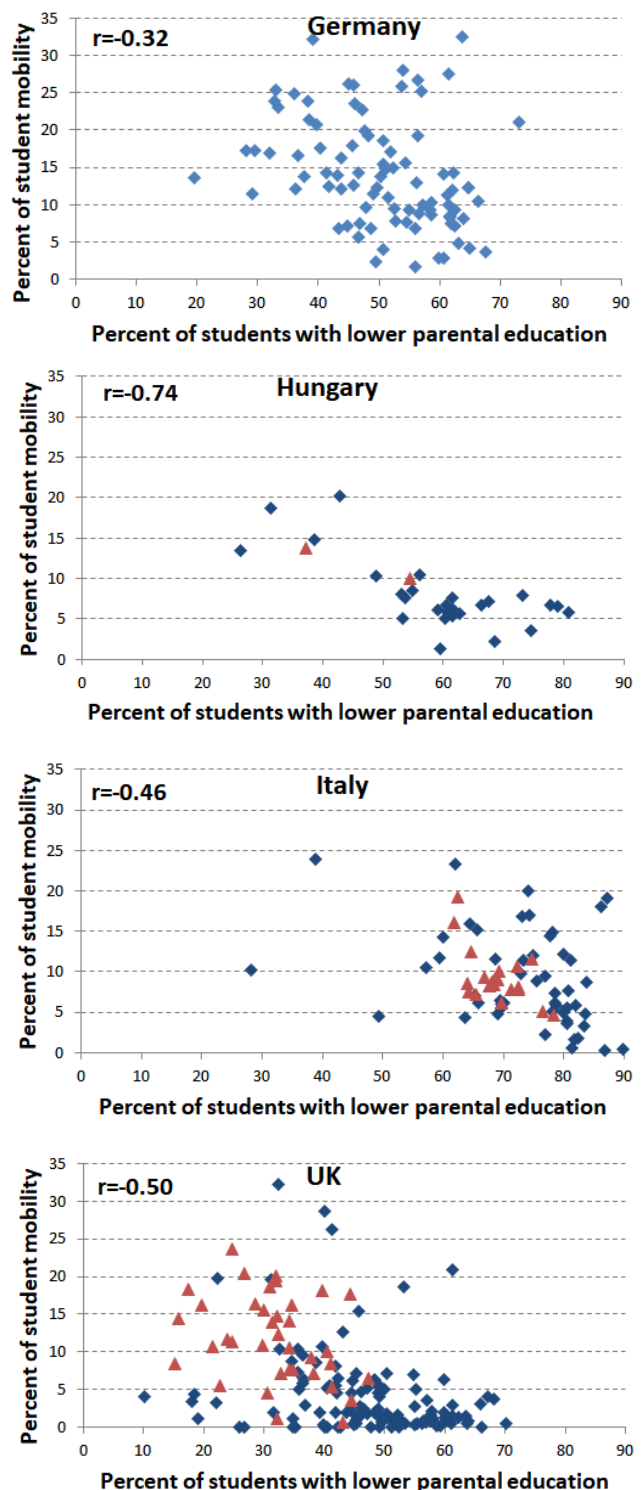
Figure 1. Percent of mobile students by parental background, mobility scheme and country, graduation years between 2005 and 2015



Note: ‘Higher’ refers to students with at least one parent who has completed tertiary education. ‘Lower’ denotes all other students. For Germany and Italy, the red bar refers to overall mobility, since total mobility cannot be separated into Erasmus and other mobility. For Hungary and the UK, the red part of the bar refers to other mobility only. Countries are ordered by highest uptake among students with highly educated parents. For information on data source and graduation years by country see the ‘Quick guide’.

The answer to this question hinges on gaining a better understanding of the mechanisms that determine uptake of student mobility. **Recent literature explains unequal uptake as a result of the divergent choices made by students from different socio-economic backgrounds.** Their choices are often explained by inequality of opportunity (i.e. the less advantaged have more financial constraints), inequality of information (i.e. the less advantaged have less knowledge about grant opportunities) and differing evaluation of mobility benefits, with students from lower socio-economic backgrounds assessing the benefits of mobility less positively. The literature concludes that policy makers need to counteract the inequitable opportunity structures and unequally distributed social capital that influence the choices of different social groups.

Figure 2. Relation between the proportion of students with less highly educated parents and overall mobility uptake in universities



Note: Universities represented with a red triangle are among the top 500 world universities based on the Shanghai ranking in 2014; dark blue diamonds are all other universities. For Germany this differentiation is not possible, and six outlier universities are not displayed. ‘Lower parental education’ refers to students of whom neither parent has completed tertiary education. The information is based on 95 universities in Germany, 29 in Hungary, 76 in Italy and 152 in the UK. ‘r’ refers to the correlation coefficient, which measures the strength and direction of the linear relationship between two variables (0 meaning no correlation, and -1 or 1 maximum strength of relationship). The number of students in the universities is not taken into account for the calculation of country correlation coefficient.

Granted all of the above, the chances of studying abroad are likely to be significantly shaped by the opportunities available for students at their higher education institution. If students attend a university without a culture of mobility, they are unlikely to be mobile. **The current literature underestimates the institutional perspective**, i.e. the association between the socio-economic concentration in universities and the uptake of mobility schemes.

Grant distribution matters

Two recent JRC studies show that much of the variation in mobility rates can be explained by variation between individual universities: in the UK as much as 30%, in Germany 21%, in Italy 16% and in Hungary 9%.

Figure 2 displays the share of students at given universities with less highly educated parents, a measure of socio-economic concentration, on the horizontal axis. Socio-economic concentration in universities is high in Hungary and the UK, and far from negligible in Italy and Germany.

Overall mobility rates are plotted on the vertical axis. **Mobility rates are clearly and consistently higher in universities attended by students with more highly educated parents.** Focusing on Erasmus mobility alone (not shown in the figure), the correlation becomes slightly weaker in Hungary and Italy but greater in the UK. (University-level data on Erasmus mobility are not available for Germany.)

In the UK, around half of the percentage-point gap in uptake of mobility between advantaged and less advantaged students (see Figure 1) can be explained by lower mobility rates in universities with a higher proportion of disadvantaged students.

For all four countries this association between overall mobility rates and socio-economic concentration in

universities remains important even when student characteristics (such as ability and socio-economic status) are kept constant and the subject of studies is taken into account. In addition, in all four countries, having less highly educated parents further decreases the chances of studying abroad. These consistent results show that **students from a lower socio-economic background face a double penalty**: they are, first, less likely to attend a university with a culture of mobility and, second, given their socio-economic background, they have a lower likelihood of participating in mobility schemes.

This result suggests a possible lever for policy makers to improve the inclusiveness of student mobility. Uptake of student mobility is directly linked to the level of university funding. **Mobility could be made more inclusive if resources were concentrated on universities with a higher share of less advantaged students.** If such universities had a greater incentive to apply for grants, a higher probability of receiving them, and a proactive attitude to student mobility, uptake would likely become more balanced across the student body.

Related and future JRC work

Future JRC work will use graduate surveys in order to estimate cross-nationally the impact of mobility on other outcome variables taking the contribution of universities into account.

This policy brief is one of a **series of science for policy briefs** reporting on recent JRC research on various aspects of fairness. **A comprehensive report on fairness** will be published in 2019.

Contact:

Mailbox of the Community of Practice on Fairness
EC-FAIRNESS-COP@ec.europa.eu