

Beyond access to HE: widening participation initiatives and student retention in Scotland

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Key Points

- The chances of dropping out from higher education (HE) in Scotland are significantly higher for students from less advantaged social backgrounds. This social gap is partly explained by students' prior attainment.
- Students from deprived areas are more likely to drop out from the ancient and old universities than students from more advantaged areas. Moreover, they are also more likely to drop out if studying STEM subjects.
- There is no statistical evidence that students who attended schools that are part of the 'Schools for Higher Education' programme (SHEP) are more likely to drop out than the other students.
- Students who previously studied at college are found to be at higher risk of dropping out from HE than other students.
- The findings suggest that targeted academic support for students from less advantaged social backgrounds, as well as a rigorous evaluation of existing widening participation initiatives, may help to reduce dropout in HE.

Social inequalities in entry into Higher Education are well documented and have attracted significant policy attention. The Scottish Government has introduced national strategies and targeted policy interventions aimed at widening participation (WP) in HE. The WP policies are designed to provide all young people, regardless of their socio-economic origin, with opportunities to get in to HE. Among these policies are the 'Schools for Higher Education' programme (SHEP), articulation routes (that is the transition from College to University for HNC/D holders), and the use of contextual data in HE admissions. Most research on WP in HE has focused on HE entry and comparatively little is known about HE retention of those students who are targeted by widening access policy. Our research provides the first Scottish-wide study of the factors associated with non-continuation rates of full-time first degree students in Scottish HE institutions (HEIs) since the 1990s. This briefing focuses on



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patterns of non-continuation among students from different socio-economic groups and 1st year students (the full study report includes analyses of non-continuation rates of young people with protected characteristics, i.e. gender, ethnicity and disability, and subsequent years of studies).

Background

High non-completion rates have adverse personal implications for students (BIS, 2014; Davies & Elias, 2003), as well as

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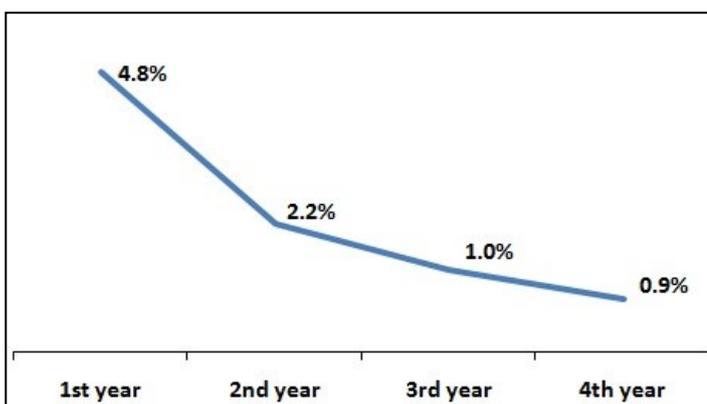
negative effects on the HEIs (they inflict additional costs and risk damaging the reputation of the institutions). There is an increasing awareness of the need to provide students with the support they require not only to 'get in' but also to 'get on' in HE, and by doing so, enable those who are at-risk of dropping out to successfully complete their programme. Maximising student retention is a key aspect of the WP strategy. Research has consistently shown that, across the UK, the probability of dropping out is higher for students whose parents work in low status occupations or have no educational qualifications and for those who live in low income homes or in deprived neighbourhoods (see for example, Vignoles & Powdthavee, 2009). In addition, studies show that the probability of dropping out is linked to attainment prior to entry to HE and there is evidence that non-continuation rates vary by different HEI types and fields of study.

Our Findings

Rates of student non-continuation ("dropout") vary substantially according to the student's year of study.

Figure 1 shows that the dropout rate is much higher during the 1st year (4.8%) than in the second year (2.2%). The percentage of "withdrawers" from Scottish Universities continues to fall in the 3rd year and beyond. Our analysis of student non-continuation rate by HEI type and field of study is displayed in Figure 2. We distinguished between ancient universities (Universities of Aberdeen, Edinburgh, Glasgow and St Andrews), old universities (Dundee, Heriot-Watt, Stirling and Strathclyde) and new universities which upgraded to university status in 1992 or afterwards.

Figure 1: Percentage of student non-continuation ("dropout") by year of study (n= 72,585)



Data and methods

The data used for this study are drawn from the UK Higher Education Statistics Agency (HESA) student records in the academic year 2012/13. The HESA data include all students registered at a Higher Education Institution (HEI), excluding Colleges, across the UK who followed courses that led to the award of a qualification. The sample used in this research is restricted to Scottish-domiciled young full-time first degree students enrolled in Scottish Universities. The study defines non-continuation rate ("drop-out") as the proportion of students in a particular academic year who ended their studies without graduating and did not transfer to another HE institution. Descriptive statistics and logistic regression models were used to analyse differences in non-continuation patterns among students from various socio-economic groups and areas of domicile attending different HEI types and fields of study.

Figure 2: 1st year non-continuation rate by institution type and field of study (number of cases in brackets)

HEI Type	Non-continuation Rate (%)	Number of Cases
New Universities	5.4%	(450)
Old Universities	4.8%	(255)
Ancient Universities	3.9%	(240)
Field of Study	Non-continuation Rate (%)	Number of Cases
Business & Communication	5.2%	(155)
STEM Subjects	5.1%	(400)
Subject allied to Medicine	4.8%	(115)
Social Studies	4.6%	(165)
Humanities & Arts	4.5%	(110)

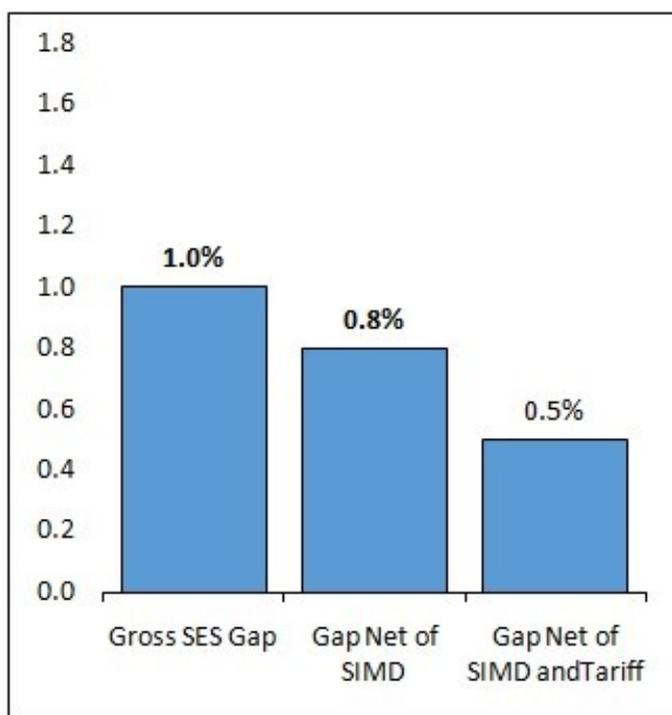
The data shows that **ancient universities have the lowest rate of student non-continuation, followed by the old universities and the new universities**. Moreover, the percentage of students who drop out is higher in STEM subjects and business and mass communication than in social studies and humanities and arts.

Socio-economic inequalities in student non-continuation in Scotland

We further analysed social inequalities in student retention in Scotland. We used three indicators of students' social background characteristics: parental occupation, parental education and level of deprivation of the area in which students were domiciled (measured

by the Scottish Index of Multiple Deprivation or SIMD). We found that, while the overall non-continuation rate for first-year students is 4.8%, **student non-continuation probability significantly varies according to students' social background characteristics**, in particular parental education and area of domicile. The probability of dropping out is 1 percentage point higher for students who have parents with no HE qualifications compared to those with parents who have HE qualifications (see Figure 3).

Figure 3: % point difference in 1st year students' probability of dropping out by parental education (n=19,915, sig' difference in bold.)



Note: SES indicates the socio-economic status of students' family of origin and is measured by parental education and occupation; SIMD is the Scottish Index of Multiple Deprivation; and Tariff is a measure of prior attainment as defined by the Universities & Colleges Admissions Service (UCAS) (<https://www.ucas.com/ucas/undergraduate/getting-started/entry-requirements/tariff>).

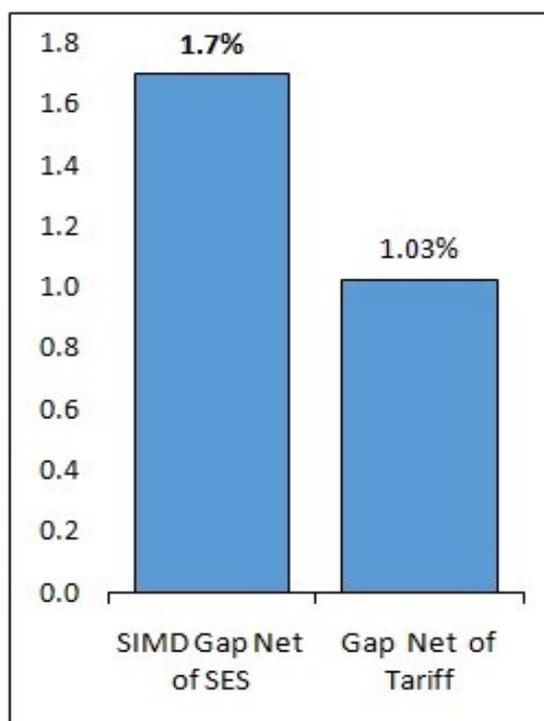
This non-continuation gap reduces to 0.8 percentage point difference when SIMD is taken into account and to 0.5 percentage point difference once attainment prior to HE entry is included in the model (and it becomes statistically insignificant).

In Figure 4, we show the percentage point difference in 1st year students' probability of dropping out by SIMD. When we account for social-class and parental education, the probability of students from the 20% most deprived areas of dropping out is 1.7 percentage points higher compared to those from the 20% least deprived areas. This non-continuation gap between students from the 20% least and most deprived areas

reduces by about 37%, to just over 1 percentage point, once tariff score is considered.

Taken together, our findings demonstrate clear socio-economic inequalities in the chances of dropping out from Scottish Universities. In addition, the results show the important role played by prior attainment in explaining the variation in the chances of dropping out for students whose parents have no HE qualification and those from more deprived areas.

Figure 4: % point difference in 1st year students' probability of dropping out by SIMD (n=19,660, sig' difference in bold)

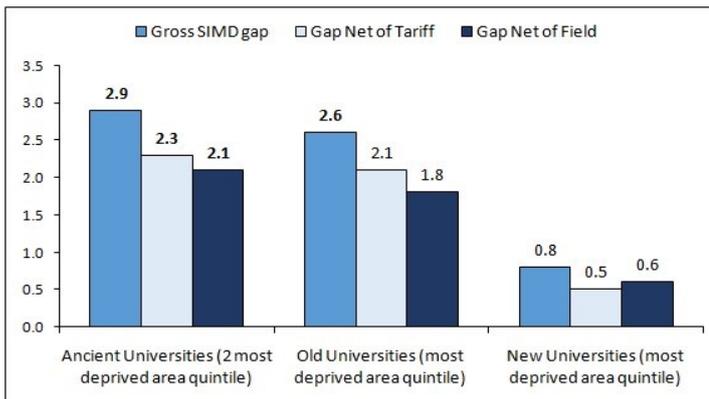


Socio-economic inequalities in student non-continuation by HEI type and field of study

Further analyses reveal that **students from very deprived areas are more likely to drop out from ancient and old universities than students from more advantaged areas. In contrast, in new universities, the difference in the non-continuation probability of students from areas with different degrees of deprivation is not statistically significant.** The larger social differences in ancient and old universities are mostly due to the very low drop-out rates of students from the most privileged backgrounds. Figure 5 shows that in ancient universities,

the probability of dropping out is nearly 3 percentage points higher for students in the 2nd most deprived quintile than for students in neighbourhoods that fall into the least deprived quintiles. The difference in the chances of dropping out remains significant but reduces to 2.3 and 2.1 percentage points when tariff scores and field of study are taken into account (respectively).

Figure 5: Percentage point difference in 1st year students' probability of dropping out for students in the most deprived areas (n=8,335-5,360, significant results in bold)



Note: The difference in dropping out chances between students from the most and least deprived quintiles in ancient universities is non-significant, possibly due to small number of cases.

This finding indicates that prior attainment and field of study account for some (but not all) of the gap in the probability of dropping out among students in more and less deprived areas who study in ancient universities.

In addition, Figure 5 also shows that students from the 20% most deprived areas are more at risk of dropping out from old universities when compared with counterparts from the 20% least deprived areas. However, this gap becomes non-significant once we take into account tariff scores.

For students in STEM subjects, we also found a relationship between the area in which students are domiciled and their probability of dropping out during the 1st year of study. Students in the 2nd most deprived area quintile are more likely to drop-out from these subjects than those in the least deprived quintile. Students' prior attainment explains part of this difference.

WP policies and Student Non-continuation

Our study explored whether the probability of dropping out varies between students who participated in WP initiatives and other students. We looked at two

initiatives, the 'Schools for Higher Education' programme (SHEP) and the 'articulation' route. Our study shows that there is no statistical evidence that students from SHEP schools are more likely to drop out than other students, and this result holds when controlling for parental education, occupation and SIMD. Considering that a higher proportion of students from SHEP schools come from low SES families, reside in the most deprived areas in Scotland and enter HE with a lower average tariff score than non-SHEP students, this is a very positive finding.

In addition, we compared the dropout rates of students who entered via articulation routes to those of other students. Articulating students are those students who, after acquiring a Higher National Certificate/Higher National Degree (known as HNC/HND) at College, gained entry into the second and third year of a degree programme respectively at university. Our findings show a less positive picture than for SHEP students. Articulating students are more likely to drop out from higher education than other students. This finding indicates that the transition into degree programmes is challenging for these students.

Conclusions

Our study shows that students from less advantaged families and from deprived areas are more at risk of dropping out from HE than more socially advantaged students. Social class differences in the risk of withdrawal are significantly higher in ancient and old universities than in the new universities. A large part of this gap is explained by students' lower attainment prior to entry to HE. These results suggest that opening up access to HE to students who previously were excluded may be not enough to ensure that they will succeed in obtaining a HE qualification.

Targeted academic support to students from less advantaged social backgrounds is needed at school, in the transition period leading to HE entry and in HE.

Thus, initiatives aimed at increasing attainment and guidance at school-level as well as initiatives such as summer schools, bridging courses and mentoring may be helpful in reducing the risk of dropping out from HE.

Additional support is required for college graduates who progress to HE. The academic demands at university are likely to be different from the ones experienced at college and may require a better

preparedness of students who use the college route to gain access to university.

A rigorous evaluation of existing widening participation initiatives is essential. The positive result which found no differences in chances of withdrawal between SHEP and non-SHEP students suggest that interventions targeted to low progression schools can be effective. However, the SHEP regional initiatives vary in the approaches and activities implemented and at present it is difficult to establish which of them is most effective.

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