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Beyond access to HE:
Widening Access Initiatives and Student Retention in Scotland

Research Report
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Executive Summary

Purpose

This research report analyses non-continuation rates in higher education (HE) among Scottish young people from different social backgrounds and with protected characteristics (i.e. gender, ethnicity and disability). In relation to nation-wide initiatives on widening access, this study provides new evidence on non-continuation rates of students who attended schools involved in the SFC-funded Schools for Higher Education Programme (SHEP) and students articulating from Colleges to HE institutions.

Key findings

- *The risk of students dropping out from HE is considerably higher during the 1st year of undergraduate studies than in subsequent years.*
- *Students from SHEP schools do not appear to be more at risk of dropping out than the other students participating in HE.*
- *Dropout rates are generally higher among students with less advantaged social backgrounds. However, a good part of the social gap in the probability of dropping out is explained by their lower attainment at the time of entry into HE.*
- *Young men are more likely to drop out than young women. This gender gap holds after controlling for individual and area characteristics, prior school attainment, HEI type and field of study.*
- *Disabled students are not more likely to drop out than non-disabled students. However, due to data limitations, the study could not distinguish between different types of disabilities, thus this result may hide within-group differences.*
- *Articulating students were found to be significantly more likely than other students to drop out from HE before completing their degree studies.*
- *Ancient universities have the lowest rate of student non-continuation. They are followed by the old Universities and the new universities.*
- *Students from more deprived areas are significantly more likely to drop out from ancient and old universities than students from less deprived areas. These differences are partly explained by lower attainment of more disadvantaged students who enter HE.*
- *Student non-continuation rates are slightly higher in STEM subjects and business and mass communication than in social studies and humanities and art.*
- *Academic reasons is reported to be the main reason for non-continuation for about 30% of the students who dropped out from Scottish universities. These percentages are significantly higher for male, students from ethnic minority groups and low SES students.*

1. Introduction

This report presents key findings and recommendations drawing from a research project which analyses differences in Higher Education (HE) retention among young people from Scotland enrolled in a first degree programme. In this report, we use the term Scottish Higher Education Institutions (HEIs) to refer to the 16 universities and 3 other higher education institutions operating in Scotland.[1]

Student retention is an important issue for widening participation (WP) in HE in Scotland. Previous research has shown that there are differences in retention rates by gender, ethnicity, disability, socio-economic status (SES) and school attainment prior to enter HE. There is also evidence that retention is influenced by differences in the teaching and learning environment of HEIs (see the literature review section). In Scotland empirical evidence on retention rates and how these rates vary between groups of students who participated in WP initiatives or with protected characteristics is often patchy (mainly focusing on one institution or a handful of students) and purely descriptive.

This research provides the first national study of the factors associated with non-continuation rates in HE in Scotland since the 1990s. Moreover, this study aims to provide evidence on how students who attended schools involved in the SFC- funded national widening access initiative Schools for Higher Education Programme (SHEP)[2] fare in terms of HE retention. Specifically, this research addresses the following questions:

1. Are SHEP students[3] more, less or equally likely to drop out of HE than non-SHEP students?
2. Are students with protected characteristics (gender; disabilities; ethnic minorities) more at risk than others to drop out from HE?
3. Are students from low SES groups (measured by parental occupation, parental education, and SIMD) more at risk than those from high SES groups to drop out from HE?
4. Are articulating students (those who enter the second or third year of a first degree programme after completing an HNC or HND) more at risk of dropping out from HE than non-articulating students?
5. Do dropout rates vary according to the type of HEI? Do the chances of dropping out of students from low SES groups or with protected characteristics differ according to the type of HEI attended?

[1] See Table A.4.A in the appendix for the list of institutions. Further Education Colleges are not included because the HESA data do not contain information on students who study for HE sub-degrees (HNC and HND) at Scottish Colleges.

[2] SHEP - Schools for Higher Education Programme, see: http://www.gov.scot/Resource/0038/00388752.pdf.

[3] Due to issues of data privacy and confidentiality, HESA provided us with anonymous individual data. This did not allow us to identify students who were specifically targeted to participate in the SHEP initiatives. Thus, our analyses included all students who entered HEIs after having attended SHEP schools. This is a limitation of our study because we could not directly evaluate the effectiveness of targeted individual interventions carried out by SHEP schools. Throughout the report we use the expression 'SHEP students' as a shorthand for students from SHEP schools.

6. Do dropout rates vary according to the field of study? Do the chances of dropping out of students from low SES groups or with protected characteristics differ according to the field of study they entered?
7. What are the main reasons for non-continuation among young full-time first degree students?

To answer these questions we used quantitative methods to analyse the HESA student record for all Scottish-domiciled students enrolled in Scottish HEIs in the academic year 2012/13.

2. Literature Review

2.1 Widening participation

Research shows that in the UK, students from high socio-economic status (SES) backgrounds are more likely to enter higher education institutions (HEI) than students from low SES backgrounds (Chowdry, Crawford, Dearden, Goodman, & Vignoles, 2013; HESA, 2008; Hills, Brewer, Stephen, & Ruth, 2010; Iannelli, 2007; Raffe & Croxford, 2013; Riddell, Raffe, Croxford, Weedon, & Minty, 2013; SFC, 2015). Students from high SES families are also more likely to attend high status universities than peers from low SES groups (Iannelli, Gamoran, & Paterson, 2011; Riddell, Raffe, et al., 2013). Moreover, socio-economic inequalities in higher education (HE) participation rates in the UK increased during the 1990s (Blanden & Machin, 2004; Iannelli, 2007; Machin & Vignoles, 2005). As in many other developed countries, the expansion of HE in the UK has involved rapid growth in students numbers (Blanden & Machin, 2004) but had little impact on the socio-economic gap in university attendance (Shavit, Arum, & Gamoran, 2007). These inequalities are present in the Scottish HE system, even though recent data show that the proportion of first degree students from low SES families increased between 2009/10 and 2013/14 from 32% to 34% (SFC, 2015, p. 18). Similarly, the percentage of Scottish-domiciled undergraduate students from the 20% most deprived areas increased from 13.3% in 2012-13 to 14% in 2013-14 (SFC, 2015, p. 4).

To combat persistent socio-economic inequality in HE entry, the UK and Scottish governments have introduced national strategies and targeted policy interventions to "Widen Participation" (WP)[4]. WP policies aim to provide all young people, regardless of their socio-economic origin, with opportunities to enter HE, as well as to "get the support they need to succeed in their studies, and progress to further study and/or employment suited to their qualifications and potential"(BIS, 2014b, p. 6). Since 2011, universities in Scotland have been required to "submit their plans on widening access to the Scottish Funding Council as part of their outcome agreements" (Riddell, Raffe, et al., 2013). Moreover, the 2013 Post-16 Education (Scotland) Act "allows the SFC to impose financial penalties on institutions deemed to have achieved insufficient progress in relation to widening access" (Riddell, Raffe, et al., 2013). One policy implemented by Scottish universities is the introduction of contextualised admission criteria. This policy allows Universities to lower the entry criteria

[4] See for example: a) the Dearing report 1997 and associated Scottish committee, chaired by Sir Ron Garrick; b) the New Labour government's "Aim higher Excellence Challenge" 2001/2004; c) the DfES 'Widening participation in higher education' booklet 2006; d) the Scottish pre-legislative paper: "Putting Learners at the Centre", 2011.

and make offers to applicants from underrepresented groups who would otherwise not have access to HE (Croxford, Docherty, Gaukroger, & Hood, 2013; Riddell, Edward, Boeren, & Weedon, 2013), and the use of contextual data in admissions varies considerably across HEIs (Riddell, Edward, et al., 2013; SPA, 2013). More recently the creation of the Commission on Widening Access in Scotland in 2015 has created a new impetus to identify obstacles to a more inclusive HE system.

Besides promoting equal access to HE, maximising student retention is a key aspect of the WP strategy because non-completion has adverse personal implications for the student (BIS, 2014a; Davies & Elias, 2003), as well as a negative effect on the institution's reputation (Bennett, 2003) and the competitiveness of the HE system in the international arena (OECD, 2015). High dropout rates also inflict additional financial costs on the HE system (Crombie, Brindley, Harris, Marks-Maran, & Thompson, 2013; Yorke, 1998).

International comparisons show that the UK generally has better performance in HE indicators like participation and retention than the US, the Netherlands, and Australia (Van-Stolk, Tiessen, Clift, & Levitt, 2007). The non-continuation rate for all full-time first degree students enrolled in 2009-10 was slightly higher in Scotland (9.4%) than in other parts of the UK (England 8.4%, Wales 9.0% and NI 8.6%) (SFC, 2012a, p. 65). This is largely due to the high proportion of mature students dropping out from HE in Scotland, although young students' non-continuation is also slightly higher in Scotland than in England and Wales (but not NI) (SFC, 2012a, p. 65). However, the percentage of non-continuation among all Scottish- domiciled first degree full-time students decreased from 10.3% in 2009/10 to 8.7% in 2012/13 (SFC, 2015, p. 36).

2.2 SHEP and low progression schools

In 2011, a flagship WP initiative in Scotland was introduced - the national 'Schools for Higher Education' programme (SHEP).

SHEP works with secondary schools across Scotland where fewer than 22% of pupils have progressed to HE over 3-5 years[5]. SHEP operates on a regional basis through the following projects: Focus West, the Lothians Equal Access Programme for Schools (LEAPS), Lift Off (Fife and Tayside) and Aspire North. SHEP activities offer individualised support, guidance and aspiration and awareness raising to pupils from S3 to S6, in line with the Curriculum for Excellence (CfE). SHEP students also participate in activities such as summer schools and open days, delivered by Scottish colleges and universities. Together, these activities aim to encourage and support pupils' progression to HE[6].

The first cohort of SHEP students entered HE in the academic year 2011/12. This first cohort comprised 9,027 school leavers from 70 Scottish secondary schools, of whom 20% continued to further and higher education (SFC, 2014, p. 35). The second cohort of SHEP students, in 2012/13, comprised a total number of 9,345 school leavers from 73 target schools. Of these school leavers, 24% have progressed to further and higher education. The number of SHEP school leavers increased in 2013/14 to 10,043 (in 80 schools), of whom 26% continued to further and higher education (SFC, 2015).

[5] http://www.gov.scot/Resource/0038/00388752.pdf, http://www.scottish.parliament.uk/S4_EducationandCultureCommittee/Educational%20attainment/UniversitiesScotland2.pdf

[6] http://www.gov.scot/Resource/0038/00388752.pdf

2.3 Factors associated with student non-continuation

Different factors have been found to be associated with student non-continuation rates. This section reviews the empirical evidence on some key individual factors.

Gender

A number of UK studies on retention in HE show that young men are more likely to drop out before completing their programme than young women (Arulampalam, Naylor, & Smith, 2004; HEFCE, 2013a; Johnes & Mcnabb, 2004). This is a long-standing pattern: for example, at the University of Edinburgh, 13% of male students compared to 8% of female students dropped out between 1996 and 1999 (Howieson, Ozga, & Provan, 2003). A study focusing on medical students in 21 UK universities between 1980 and 1992 found that male students were more likely than female students to leave the programme before the end of the first year (Arulampalam et al., 2004).

More recent data show that retention rates among Scottish-domiciled first-degree full-time students at HEIs in Scotland were 2.5 percent higher for women than men in 2012-13 (SFC, 2015; table 18). HESA data for all universities in England show that in 2010-11, 8.5% of male students did not continue onto their second year, compared to 6.4% of female students (HEFCE, 2013b, p. 9). Moreover, a higher percentage of young women (57%) than young men (49%) attained a first or second class degree (both lower second and upper second degrees) (HEFCE, 2013a, p. 17).

Vignoles & Powdthavee (2009) linked HESA, NPD[7] and PLASC[8] data to estimate student dropout between the first and second year across all HEIs in England in 2005/6. Their study did not find gender differences in the chances of dropping-out when using models which took into account other factors such as ethnicity, social class, prior attainment, degree subject and institution type.

Ethnicity

Dropout rates in UK Universities differ by ethnic group. An analysis of HESA data for all HEIs in England shows that, in 2010/11, among UK-domiciled students, a higher percentage of black students (9.4%) than white students (6.2%) and Chinese students (5.2%) dropped out between the first and second year (HEFCE, 2015, p. 18). Black and Indian students in English Universities were also less likely than white students and students from any other ethnic background to attain a first or second class degree (HEFCE, 2013a, p. 19).

However, another analysis of the HESA student record shows that, after controlling for gender, social class, deprivation area, prior attainment, degree subject and institution type, students from all ethnic minority groups are less likely than white students to drop out within a year of entering HE (Vignoles & Powdthavee, 2009).

[7] National Pupil Data (England)

[8] Pupil Level Annual School Census (England)

Among Scottish-domiciled first-degree full-time students at HEIs in Scotland in 2012-13, retention rates were 1.1 percent higher for white students than BME[9] students (SFC, 2015; table 18).

Socio-Economic Status

In the UK, there is a persistent association between students' social class and the likelihood of dropping out from HE before attaining a degree. Early research shows that dropout rates from English and Welsh universities in 1993 were significantly higher among students with parents working in low SES jobs than their peers whose parents were in managerial or professional occupations (Johnes & Mcnabb, 2004). An analysis of HESA 2005/6 from English universities shows that the probability of dropping out is higher for students whose parents work in low status occupations than for counterparts from families with professional and managerial parents (Vignoles & Powdthavee, 2009). Similar SES differences in withdrawals were found at the University of Edinburgh between 1996 and 1999, and parental occupation was found to have an independent effect on withdrawal, regardless of age, gender and prior attainment (Howieson et al., 2003).

In addition to parental social class, an analysis of English universities between academic years 2006-07 and 2010-11 shows that there is also an association between income and student retention rates: the probability of dropping out is lower for students from families with high incomes than for students from families with low incomes (OFFA, 2014). Moreover, HESA data reveal that students from geographical areas categorised as highly deprived, as well as those who were eligible for free school meals, are less likely to progress beyond the first academic year (Vignoles & Powdthavee, 2009). This finding remains statistically significant after accounting for the effects of gender, ethnicity, prior attainment, field of study and institution type on student non-continuation. Similarly, an analysis of 2010-11 HESA records shows that students from low participation neighbourhoods are less likely to stay at University beyond the first year than their peers from higher participation neighbourhoods (HEFCE, 2013b).

Among Scottish-domiciled first-degree full-time students at HEIs in Scotland retention rates in 2012-13 were 4 percent lower than among students from the 20% of areas which are most deprived (SFC, 2015; table 18).

Disability

Disability has also been found to matter for HE retention. An analysis of HESA data for all English universities shows that first-year dropout rates of full time first degree students in 2010-11 were higher for students with disabilities (8.2%) than for students not known to be disabled (7.4%)(HEFCE, 2013b). Non-disabled students were also somewhat more likely to graduate with a first or upper second class degree than students receiving a Disabled Students' Allowance (DSA); 53.6% and 50.6% respectively (HEFCE, 2013a). Among students classified as disabled, recipients of DSA were slightly more likely to attain a first or upper second class degree than those who didn't receive this allowance (HEFCE, 2013a).

[9] Black and Ethnic Minorities

Among Scottish-domiciled first-degree full-time students at HEIs in Scotland in 2012-13 retention rates were 1.2 percent lower than average among students with a known disability (SFC 2015; table 18).

Prior attainment (attainment before entry to HE)

First-year dropout rate has been found to differ among students who entered HE with various school attainment (OFFA, 2014). An analysis of first degree students in English and Welsh universities shows that students who achieved lower grades at A-levels or Scottish Highers were less likely to complete their programme than peers with better results (Johnes & Mcnabb, 2004). Poorer attainment at age 18 was associated with both academic failure ("involuntary attrition") and other reasons for early departure from HE ("voluntary attrition") (Johnes & Mcnabb, 2004). Higher non-continuation rates were also found in English universities among students with low achievement at GCSE and A-level. In fact, when examination results at ages 16 and 18 were taken into account, the SES gap in non-continuation narrowed, meaning that attainment at secondary school explains some of the dropout gap between students from low and high SES families (Vignoles & Powdthavee, 2009). Further confirmation of these results come from a study on nursing students in English HEIs: those students who entered with the minimum entry requirements were less likely to complete their programme than students with higher entry qualifications (Pryjmachuk, Easton, & Littlewood, 2009). In addition, an association was found between performance in certain school subjects and the chances of dropping out from medical school. Among medical students, the probability of dropping out at the end of the first year was lower for students who scored highly on their Biology, Chemistry and Physics A-levels. There was no similar positive effect related to A-level achievement in English (Arulampalam et al., 2004). A study of young SQA-qualified students at the University of Edinburgh shows that those who entered with higher grades were more likely to successfully complete their studies and to achieve a 'top class degree' than those who enrolled with lower grades (Croxford et al., 2013).

Articulation

The articulation route to a degree at university is a key element of government policy on widening access in Scotland (Scottish Government, 2011). 'Articulation' refers to students who, after having acquired a Higher National (HN) qualification at college, gain entry into the second or third year of a degree programme: second year for those who have a Higher National Certificate (HNC) and third year for those with a Higher National Diploma (HND). This is referred to as entry with 'advanced standing' because students gain full recognition of their prior HE study. In addition to its role in widening access – colleges attract more students from socially disadvantaged backgrounds than do universities (SFC, 2012b) – the articulation route is also seen as cost effective for the public finance since it enables students to complete a four-year degree at lower annual cost during their years at college (SFC, 2011). Recent research has found that among students with HN qualifications who entered HEIs in the Lothian region, those who fully articulated (as defined above) found their transition more difficult than those who entered an earlier year (Howieson, 2012), but little is known about overall retention rates among articulating students.

2.4 Reasons for non-continuation

There are multiple reasons for dropping out from HE before attaining a degree. "Research exploring the reasons for student withdrawal tends to conclude that there is rarely a single reason why students leave; in most cases there are inter-related factors. Consequently, data from institutional exit surveys that assume a single reason for withdrawal are unreliable" (Jones, 2008, pp. 9–10). The next section explores some of the key reasons for dropping out from HE.

Financial factors

A number of studies have identified financial hardship and part-time employment as contributory factors in dropout by students from low socio-economic groups (House of Commons Select Committee on Education and Employment, 2001; Jones, 2008; National Audit Office, 2007). A study of "withdrawers" from 30 HEIs in the late 1990s shows that about 50% of male students and 40% of female students reported "financial problems" as one of the reasons for leaving before attaining a degree (Davies & Elias, 2003, p. 44). About 17% reported that this was the main reason leading them to drop out (Davies & Elias, 2003, p. 47). A small-scale study study which focuses on first degree students in a business department at a "new" English university shows a higher dropout rate among students who experienced economic hardship than among peers who did not declare similar financial difficulties (Bennett, 2003). A study of students in UK univerisites reports that, among those who dropped out, about 1 in 5 stated that the cost involved in studying was one of the reasons for not continuing in HE (BIS, 2014a, pp. 49–50). A third of those who dropped out also reported that a concern about incurring debt was among their reasons for leaving HE (BIS, 2014a, pp. 49–50).

Type of HEI and programme choice

An analysis of HESA student records for all HEIs in England shows a higher non-continuation rate in less research-intensive universities than in research-intensive universities, which are defined as Russell Group institutions and other universities with "an average 2001 RAE rating that exceeds the lowest RAE score for a Russell Group university" (Vignoles & Powdthavee, 2009, p. 8). A study of "withdrawers" from 30 HEIs in the late 1990s shows that the most common reason for non-continuation was ‘mistaken choice of course’, with nearly half of both male and female students stating this was a reason for leaving before attaining a degree (Davies & Elias, 2003, p. 44). About 1 in 4 reported that this was the main factor leading them to drop out (Davies & Elias, 2003, p. 47). "Mistaken choice of institution" was also reported as a reason for withdrawal by about 1 in 5 non-continuing students (Davies & Elias, 2003, p. 44). A longitudinal study of students in the UK indicates that students are more likely to use a small number of resources to gather information on HE participation if they live in low-social class families or with parents who are not highly educated (BIS, 2014a, pp. 38–39).

The academic environment and "lifecycle"

Some stages in the academic lifecycle may be particularly challenging and put students at higher risk of dropping out. UK research shows that withdrawal rates are higher among first-year students than among students in more advanced years (Arulampalam et al., 2004). It has been suggested that the first days at university are critical for student retention (Moriarty et al., 2009), and while early departures do peak during the initial weeks of the first year, smaller peaks occur after Christmas or during assessment times (Boorman, Brown, Payne, & Ramsden, 2006; Lloyd & Willmot, 2002). In addition, researchers suggested that students on placements could be at greater risk of dropping out given the challenges and potential isolation they may experience while on a placement (Moriarty et al., 2009).

Institutional differences in teaching and learning approaches - including staff attitudes, relationships with students, and inclusive teaching and learning strategies - explain to some extent different rates of student retention, (Thomas, 2002). Macdonald & Stratta (2001; 257) reported that tutors' response to WP-indicated students "was to retain the status quo despite a changing student population...[and]...to adopt strategies that assisted student inclusion within the existing academic culture". However, a case study of one post-92 university in England shows that staff members developed a range of interpretations of WP and responded differently to these policies (Stevenson, Clegg, & Lefever, 2010). Research on early withdrawal found a mismatch between staff and students views; students focused on learning and teaching issues while staff identified reasons relating to individual student circumstances (see also: Davies, 1999; Young, Glogowska, & Lockyer, 2007).

2.5 Summary

Much research on social inequalities has focused on entry into HE. However, much less is known about inequalities in retention and other HE outcomes. For many years student retention has been high on the Scottish Government's agenda as part of its WP national strategy. Students enrolled at Scottish HEIs should be able to successfully complete their course regardless of their SES. However, existing research highlights that students with protected characteristics and those in low SES groups are at higher risk of dropping out than other students. Moreover, the risk of dropping out from higher education is greater for low attaining pupils at secondary school than for high attaining pupils. Such inequality in student non-continuation rate may play an important role in reproducing socio-economic gaps in later life outcomes between individuals from advantaged and disadvantaged backgrounds. In the next section, we describe the methodology used to explore student non-continuation patterns in HE in Scotland.

3. Methodology

3.1 Data source

To answer the research questions outlined in the introduction, we used the HESA student record for the academic year 2012/13[10]. This record includes all students registered at a HEI who followed courses that led to the award of a qualification. It includes new entrants (first-year students) as well as students in subsequent years of their programme. The students analysed in this report are all Scottish-domiciled students enrolled at a HEI in Scotland. Our working sample, however, is further restricted to:

1) Young students who were aged 21 years or younger at entry to HE;
2) First degree students;
3) Full-time students.

This research focuses on young students because information about parental education and social class is available in the HESA data only for people aged 21 or under at the time of entry to HE. Another reason is our focus on students who entered HE from low progression schools which participated in the SFC-funded national widening access initiative Schools for Higher Education Programme (SHEP).

Lookup tables were provided to HESA by the SFC in order to retrieve data which identify Scottish-domiciled students, students from different areas of deprivation (SIMD)[11], students from SHEP schools, students who attended low progression schools and those who entered HE through articulation routes.

3.2 Variables

The following variables and coding were used in this study:

Non-continuation ("drop out"): We define non-continuation rate as the proportion of students in a particular academic year (in this report, the academic year 2012-13) who ended their studies without graduating and did not transfer to another HE institution. The variable is coded either as 1=Still in HE or 2=No longer in HE.

Reasons for leaving: The reasons for non-continuation were coded as either academic reasons (coded 1) or non-academic reasons (coded 2)[12]. The small sample size did not allow us to use the more detailed information available in the data.

SHEP students: Students who attended schools which participated in the "Schools for Higher Education Programme" prior to entry into HE. The variable is coded either as 1=Non-SHEP Student or 2= SHEP Student. A list of SHEP schools in our sample is given in Table A.4.B in the appendix.

[10] Source: HESA Student Record 2012/13 - Copyright Higher Education Statistics Agency Limited 2014. HESA cannot accept responsibility for any inferences or conclusions derived from the data by third parties.
[11] http://www.gov.scot/Topics/Statistics/SIMD
[12] For more information on reasons for ending see: https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=12051&href=S^_^RSNEND.html

Articulating students: Students with a Higher National Certificate (HNC) or a Higher National Diploma (HND), obtained in a further education college (FEC), who enrolled directly into year 2 or above of a university degree programme.

Gender: Women (coded 1) or men (coded 2).

Disability: Non-disabled student (coded 1) or Disabled student (coded 2)[13].

Ethnicity: Depending on the type of analysis and the number of cases available in each category, we used either a 3-category variable coded as 1=white, 2=Asian and 3=Black/Mixed/Other, or a 2-category variable coded as 1=white or 2=BME[14].

Social Class: Parental social class was coded as 1=High (managerial and professional occupations), 2=Intermediate (clerical occupations, small employers and lower supervisors), 3=Low (routine and manual occupations), and 4=Unknown (this category comprises mainly "don't know" answers and a few cases of long term unemployment).

Parental Education: Students were asked to give information on whether or not any of their parents (including adoptive parents, step-parents or guardians who have brought them up) have any higher education qualifications, such as a degree, diploma or certificate of higher education. The variable was coded as 1=Yes, 2=No, 3=Unknown.

SIMD: The Scottish Index of Multiple Deprivation (2012 version) was coded as 1=20% least deprived areas, 2=2nd quintile, 3=3rd quintile, 4=4th quintile, 5=20% most deprived areas. SIMD is an area level indicator of students' SES. In contrast to parental education and social class, which gives information on the individual student's SES, SIMD allows us to identify the level of advantage and disadvantage present in the area where the students live.

Tariff score: This variable measures prior school attainment of HE students by attributing different scores according to pupils' grades and level of courses taken (the values range from 20 to 990). We used a 5-category variable distinguishing between 1=20% highest tariff scores, 2=2nd quintile, 3=3rd quintile, 4=4th quintile, and 5=20% lowest tariff scores.

HEI types: We used a 3-category variable distinguishing between 1=Ancient Universities, 2=Old Universities, and 3=New Universities[15].

Field of Study: We used a 6-category variable distinguishing between 1=Medicine (including veterinary and dentistry), 2=Subjects allied to medicine, 3=STEM subjects, 4=Social studies

[13] For more information on the various disability types see: https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=12051&href=S^_^DISABLE.html

[14] For more information on the categorisation of ethnic minority groups visit: https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=12051&href=a^_^ETHNIC.html

[15] Ancient Universities are: Universities of Aberdeen, Edinburgh, Glasgow and St Andrews. Old Universities are: Dundee, Heriot-Watt, Stirling and Strathclyde. New Universities are: Abertay, Edinburgh Napier, Glasgow Caledonian, Queen Margaret, Robert Gordon, University of the Highlands and Islands and University of the West of Scotland (also included in this category: Scotland's Rural College, Glasgow School of Art, Royal Conservatoire of Scotland).

(including law and education) 5=Business and Mass communication, and 6=Humanities and arts.

3.3 Analytic plan

Descriptive statistics were used to explore the overall rates of non-continuation among various groups of students as well as non-continuation rates at different HEI types and fields of study. We fitted logistic regression models estimating the probability of dropping out from HE, considering students' individual characteristics as well as area of residence and institutional characteristics. This was followed by fitting average marginal effects models estimating the percentage point difference in the chances of dropping out for students with protected characteristics and from different SES groups as well as for students in the different HEI types and fields of study.

All the absolute numbers presented in this report were rounded to the nearest multiple of 5 to comply with HESA's data analysis guidelines.

4. Findings

4.1 Student characteristics and non-continuation rate - general patterns

Confirming previous studies, the students from the 2012/13 HESA record are predominantly white (93.5%), female (57.5%) and without disabilities (92.2%) (Table 4.2.1, last column). Students are also more likely to have at least one parent with a higher education qualification (57.5%) than have parents with no such qualifications (29.2%). Similarly, students are more likely to come from high social-class families (50.5%) than from low-social class homes (12.5%) as well as reside in the 20% least deprived areas (34% of all students).

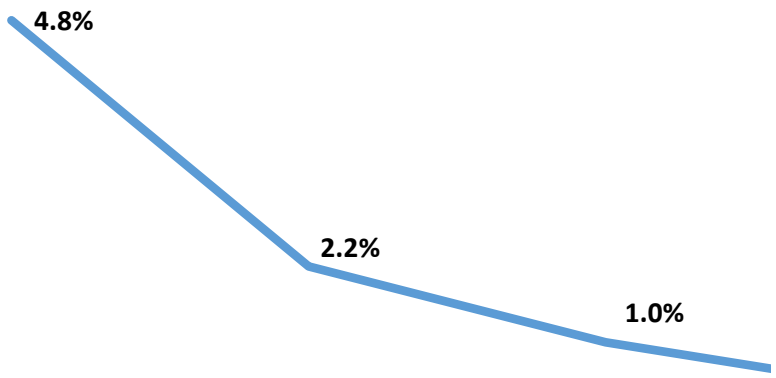
Key findings

In the academic year 2012/13:

- ***4.8% of students dropped out during their 1st year of study.***
- ***The risk of dropping out is considerably higher during the 1st year than in subsequent years.***

The rate of student non-continuation ("dropout") varies substantially according to the student's year of study. Figure 4.1.1 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" in Scottish universities continues to fall in the 3rd year and beyond. Thus, the risk of dropping out is higher during the 1st year than in subsequent years.

Figure 4.1.1: Percentage of student non-continuation ("dropout") by year of study (n= 72,585)



4.2 Non-continuation of SHEP students

1,320 first year students (6.7%) had attended a school from the "Schools for Higher Education Programme" prior to entry to HE in Scotland ("SHEP students") before enrolling at a HEI in 2012-13. A key question this research project addresses is whether SHEP students are more, less or equally likely to drop out from higher education in comparison with entrants from other schools ("Non-SHEP students"). Before answering this question, we first present a comparison of the characteristics of SHEP and Non-SHEP 1st year students (Table 4.2.1).

Key findings

In 2012/13, 6.7% of all 1st year students were SHEP students.

Compared to other students, SHEP students were more likely:

- ***To be from low SES families and to reside in the 20% most deprived areas in Scotland.***
- ***To enter HE with a lower tariff score.***
- ***To enter new and old universities***.
- ***To study STEM subjects and somewhat less likely to study medicine and subjects allied to medicine.***

As can be seen in Table 4.2.1, there is no significant difference in the gender composition of SHEP and Non-SHEP students. Similarly, no differences were detected in the percentage of SHEP and Non-SHEP students who identified themselves as "white" compared to belonging to an ethnic minority group. The percentage of students with self-reported disabilities is slightly higher among Non-SHEP students than among SHEP students.

In contrast, SHEP students are more likely than Non-SHEP students to be from low social class families or have parents with no HE qualifications. SHEP students are also more likely to live in deprived areas. SHEP and Non-SHEP 1st year students also differ significantly in their mean tariff score: the mean tariff score of 1st year students is lower for SHEP students (403.5) than the mean score of Non-SHEP students (425.2).

Table 4.2.1: SHEP and Non-SHEP 1st year students by socio-economic status (SES), protected characteristics (PC), and tariff score (mean and standard deviation).

		SHEP students (%)	Non-SHEP students (%)	All students (%)
Gender	Men	42.5	42.5	42.5
	Women	57.5	57.5	57.5
Ethnic group	White	93.0	93.5	93.5
	Ethnic Minority	7.0	6.5	6.5
Disability***	No disability	94.5	92.0	92.2
	Disability	5.5	8.0	7.8
Social class***	High	35.5	51.5	50.5
	Intermediate	25.0	21.0	21.5
	Low	22.0	12.0	12.5
	Unknown	17.5	15.5	15.5
Parent has HE qualifications***	Yes	38.0	59.0	57.5
	No	48.0	28.0	29.2
	Unknown	14.0	13.0	13.3
SIMD***	20% Most deprived	30.0	8.0	9.5
	2nd	21.0	12.5	13.0
	3rd	19.0	18.5	18.5
	4th	18.0	25.5	25.1
	20% Least deprived	12.0	35.5	34.0
Mean tariff score***		403.5 (116.4)	425.2 (117.8)	423.5 (117.8)
Total		**100% (1,320)**	**100% (18,400)**	**100% (19,725)**

***Significant differences at p<0.001

A comparison of SHEP and Non-SHEP 1st year students by the HEI they entered and their field of study is displayed in table 4.2.2. This shows that higher proportions of SHEP students entered new and old universities than Non- SHEP students. There are also some differences in the percentages of SHEP and Non-SHEP students in the various fields of study. For example, there is a slightly higher percentage of SHEP than Non-SHEP students in STEM subjects while the trend is reversed for medicine and subjects allied to medicine.

Table 4.2.2: SHEP and Non-SHEP 1st year students by HEI type and field of study

		SHEP students (%)	Non-SHEP sudents (%)
Institution Type**	Ancient Universities	29.5	31.0
	Old Universities	24.5	27.0
	New Universities	46.0	42.0
Field of Study***	Medicine (includ' veterinary & dentistry)	2.0	3.5
	Subject allied to Medicine	10.0	12.0
	STEM Subjects	44.0	39.5
	Social Studies (includ' Law & Education)	19.5	18.0
	Business and Mass Communication	15.0	15.0
	Humanities and Arts	9.5	12.0
Total		**100% (1,320)**	**100% (18,400)**

** Significant differences at p<0.01 and *** at p<0.001

There is a small variation in the dropout rate of SHEP students (5.3%, 70 cases) and non-SHEP students (4.6%, 850 cases). However, results from regression models show that this difference is not statistically significant. This indicates that there is no statistical evidence that SHEP and non-SHEP students differ in their propensity to drop out from HE during their first year of study (see appendix, tables A.4.1 and A.4.2). Due to the small number of cases involved, we were unable to investigate the non-continuation rates of SHEP students by HEI types and fields of study.

Key finding:

- ***There is no statistical evidence that SHEP students are more likely to drop out than other students.***

4.3 Non-continuation by protected characteristics

The rates of 1st year non-continuation of students with protected characteristics are presented in Table 4.3.1. The table shows that young men are significantly more likely to drop out than young women. Young students from Asian background are less likely to drop out than white students, who in turn, are less likely to drop out than students from Black/Mixed/Other ethnic minority groups. While the percentage of withdrawals among disabled students is slightly higher than among non-disabled students, this difference is not statistically significant.

Key findings:

- ***Young men are more likely to drop out than young women. This gender gap holds after controlling for individual, institutional and area characteristics.***
- ***There is no statistical evidence that disabled students are more likely to drop out than non-disabled students.***

Table 4.3.1: Non-continuation rates of 1st year students by protected characteristics

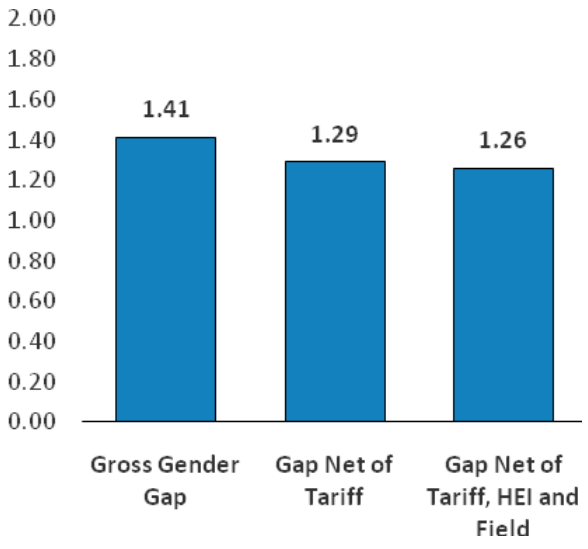
		% No longer in HE
Gender**	Men	5.6
	Women	4.1
Ethnicity**	White	4.8
	Asian	2.3
	Black/Other	6.8
Disability	No Disability	4.7
	Yes - Disabled	5.6
Total		**100% (945)**

**Significant differences at p<0.01

The pattern reported in Table 4.3.1 was further explored by a series of regression models estimating the probability of dropping out during the 1st year taking into account various students' characteristics. The full estimates are given in the appendix (tables A4.1 and A4.2).

The models did not detect significant differences in the likelihood of dropping out among students with or without disabilities. However, the models show that the probability of dropping out is about 1.41 percentage points higher for young men than for young women. This is illustrated by Figure 4.3.1, which shows the net effect of gender when different SES factors are controlled for. This percentage point difference in gender non-continuation chances drops to 1.29 when tariff scores are taken into account, indicating that prior attainment explains roughly 10% of the non-continuation gap between young men and young women. The gender gap is minimally reduced (to 1.26 percentage point difference) by taking into account gender differences in HEI and field of study entered.

Figure 4.3.1: Percentage point difference in the non-continuation rate of young men in comparison to young women (1st year students, n=19,725-19,660)



Significant differences were found in the probability of non-continuation between Asian students and White students, with Asian students less likely to drop out than White students, but the number of cases is too small to draw firm conclusions about ethnic differences.

4.4 Non-continuation by Socio-Economic Status (SES)

Table 4.4.1 reports the rate of 1st year student non-continuation by parental education and socio-economic status. The results show a higher dropout rate among students with parents who have no HE qualifications than among those with parents who have a HE qualifications. The student non-continuation rate is also higher among students from low social class than among peers from high social class. Finally, student dropout rates increase with the deprivation level of the area they live in: the more deprived the area is, the higher the dropout rate of students coming from this area.

Key findings:

- ***Dropout rates are higher among students with parents with no HE qualification, from lower social-class families and from most deprived areas of the country.***
- ***The social gap in the probability of dropping out is partially explained by the lower attainment of students at the time of entry into HE.***

Table 4.4.1: 1st year non-continuation rates by parental education, socio-economic status and area of residence (n=19,915-19,850)

		% No longer in HE
Parental Education* **	Yes - HE qualifications	4.2
	No HE qualifications	5.2
	Unknown	6.1
Social-class*	High	4.4
	Intermediate	4.7
	Low	5.3
	Unknown	5.5
SIMD**	20% Most deprived	6.0
	4th quintile	5.3
	3rd quintile	5.2
	2nd Quintile	4.6
	20% Least deprived	4.1
Total		**100% (945)**

*p<0.05, **p<0.01, ***p<0.001

We further explored the trends reported in Table 4.4.1 by fitting a series of logistic regression models and the estimates are given in the appendix (tables A4.3.1 and A4.3.2). Results from these models show that, when parental education is taken into account, there are no significant differences in the probability of non-continuation for students from high and low social class families. This finding indicates that the social class effect is weaker than the effect of parental education (which continues to be significant).

The results show that the probability of dropping out during the 1st year is 1.0 percentage point higher for students who have parents with no HE qualifications compared to those with parents who have such educational qualifications (Figure 4.4.1). This non-continuation gap reduces to a 0.8 percentage point difference when SIMD is taken into account and to a 0.5 percentage point difference once tariff score is included in the model, and it becomes not statistically significant. This result indicates that, after controlling for students' SES and SIMD, prior attainment (as measured by tariff score) explains about 38% of the difference in non-continuation chances between students with parents who have a HE qualification and those whose parents don't. Interestingly, the gap between students who did not report their parents' education information and those with parents with HE qualifications is even higher (1.6%). However, as for the comparison between students with parents with and without HE qualifications, this difference is halved after controlling for SIMD and tariff score.

These final models highlight the importance of prior attainment for explaining the differences in the chances of discontinuing HE study for students from different social backgrounds.

Figure 4.4.1: Percentage point difference in 1st year students' probability of dropping out by parental education (n=19,915, significant differences in bold)

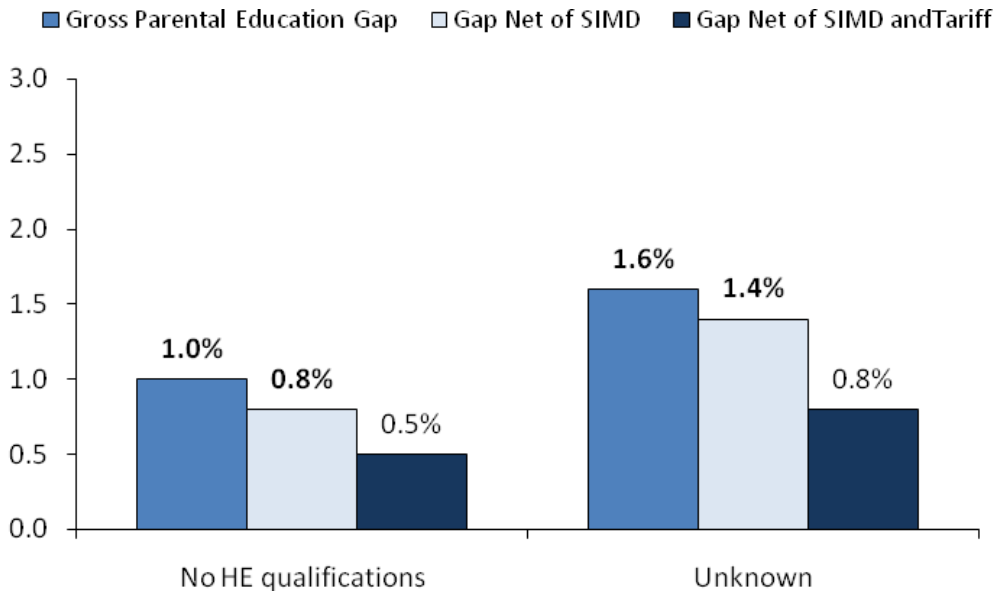
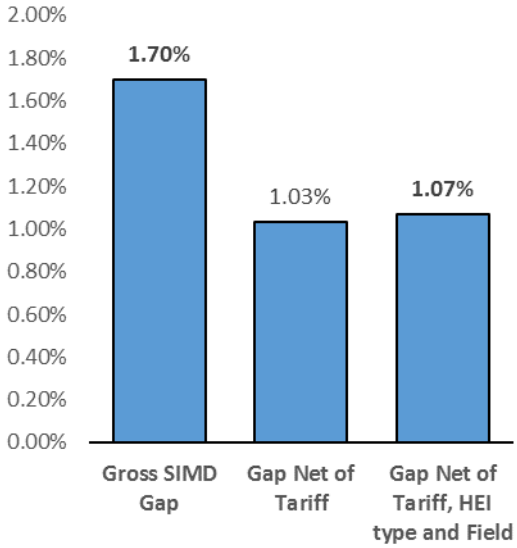


Figure 4.4.2 shows that the percentage point difference in 1st year students' probability of dropping out by SIMD quintile. Taking into account individual characteristics, the probability of students from the 20% most deprived areas of dropping out is 1.7 percentage points higher compared to those from 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 1.03 percentage points, once tariff score is added to the model and remains more or less at this level when the institution type and field of study are also included in the analysis. This finding demonstrates the important role played by prior attainment in explaining the variation in the chances of dropping out for students from more deprived areas. However, prior attainment explains some (but not all) of the gap in retention of students from the least and most deprived areas. Indeed the non-continuation gap reduces but remains significant once prior attainment is taken into account.

Overall, these findings also suggest that among the measures of disadvantage used for predicting non-continuation in HE, SIMD quintile is a stronger predictor of the probability of dropping out than individual SES characteristics.

Figure 4.4.2: Percentage point difference in 1st year students' probability of dropping out by SIMD (n=19,660, significant differences in bold)



4.5 Non-continuation of articulating students

HESA records show that in Scotland there were 1,870 full-time students who entered an HEI after attaining an HND or HNC qualification at college (2.5% of all young students in the 2012/13 cohort). 1,480 of them entered in the second and third year of a degree programme.[16] Table 4.5.1 displays the distribution of articulating students according to protected characteristics and socio-economic status. Compared to other students, among articulating students there is a

Key findings:

- ***In 2012/13, 2.5% of all full-time first degree young students entered HE after attaining an HND or HNC qualification at college.***
- ***Articulating students were more likely than other students to drop out from HE.***
- ***About 6% of those who entered HE in the 2nd year had left HE before acquiring a degree compared to only 2% of the non-articulating students.***
- ***About 5.5% of those articulated into the 3rd year were no longer in HE compared to just over 1% of the non-articulating students.***

[16] HESA data slightly underestimate the number of people who entered HEIs via the articulating route. A comparison between our data and the data from the National Articulation Database, held by the Scottish Funding Council, shows that about 250 cases who articulated to HEIs are not captured by our data. However, the exclusion of these cases does not affect our results since similar dropping-out rates among young articulating students emerge from the National Articulating Database.

more balanced gender representation, a higher percentage of BME and disabled students and a higher percentage of students from low SES groups and from more deprived areas.

Table 4.5.1: Articulating students by protected characteristics and socio-economic status, all years of programme

		Articulating students (%)	Non Articulating students (%)
Gender* **	Young Men	47.0	43.0
	Young Women	53.0	57.0
Ethnic group **	White	91.8	93.6
	Asian	5.4	3.8
	Black/Other	2.8	2.6
Disability*	No disability	89.7	91.2
	Disability	10.3	8.8
Social class* **	High	35.2	49.8
	Intermediate	20.7	20.8
	Low	22.9	12.3
	Unknown	21.2	17.1
Parent has HE qualifications* **	Yes	39.1	54.9
	No	33.5	27.6
	Unknown	27.4	17.5
SIMD* **	20% Most deprived	17.6	8.7
	2nd	19.8	12.8
	3rd	20.2	18.4
	4th	20.5	25.1
	20% Least deprived	21.9	35.0
Total		**100% (1,870)**	**100% (72,745)**

*p<0.05, **p<0.01, ***p<0.001

Table 4.5.2 presents the non-continuation rates of articulating students by year of programme. The data show that articulating students are at greater risk of dropping out than non-articulating students. Differences in the dropout rates of articulating and non-articulating students are evident for both those articulating to the 2nd year and to the 3rd year. A breakdown of articulating students' drop-out rates by SIMD quintiles showed that articulating students from all areas of the country have higher dropout rates than non-articulating students. We refrain to present these tables as well as to run any statistical modelling because the number of cases involved are two few.

Table 4.5.2: Articulating students' non-continuation rate, by year of programme*

	Articulating students (%)	Non-Articulating students (%)	All non-continuations (%)
1st Year[(1)]	5.6	4.7	4.8 (n=945)
2nd Year	6.1	2.0	2.2 (n=400)
3rd Year	5.4	1.2	1.4 (n=270)

* No further drop out among articulating students was found in years 4 and beyond in this student cohort.
[(1)] Students who entered the first year of a degree programme with HNC/D from college are not strictly articulating students because they do not receive recognition of their prior studies. We present these data to provide a fuller picture of retention issue for these 'non-traditional' students.

4.6 Non-continuation by HEI type

Key findings:

- ***Ancient universities have the lowest rate of student non-continuation. They are followed by the old universities and the new universities.***
- ***There is a gender gap in the probability of dropping out from all HEI types. This gap is larger in the new universities than in the old and ancient universities. Factors explaining these variations vary across institutions.***
- ***Differences in the chances of dropping out between disabled and non-disabled students were found in the ancient universities, but not in the old and new universities. The higher propensity for non-continuation amongst disabled students is mostly explained by differences in prior attainment.***
- ***Students from more deprived areas are significantly more likely to drop out from ancient and old universities than students from less deprived areas. Also in this case these differences are partly explained by prior attainment.***

HESA student records show that in the 2012/13 cohort, there were 24,090 (32.3%) Scottish-domiciled young full-time students enrolled in ancient universities, 21,110 (28.3%) in old universities and 29,415 (39.4%) in new universities.

Table 4.6.1 presents the student composition by protected characteristics and socio-economic status across the three categories of HEIs. Gender differences in participation are greater in new universities than in ancient universities. The smallest gender gap is found in the old universities. There are very small differences across the three HEI types in the percentages of BME and disabled students. While students from high SES groups are overrepresented in all types of HEI, this pattern is strongest in the ancient universities. In contrast, new institutions have the most equal distribution of students from the various SES groups and SIMD bands.

Table 4.6.1: Students in the three HEI types, by protected characteristics and socio-economic status, all years of study

		Ancient Universities (%)	Old Universities (%)	New Universities (%)
Gender* **	Young Men	44.0	46.0	41.0
	Young Women	56.0	54.0	59.0
Ethnic group* **	White	94.0	93.3	93.2
	Asian	3.2	3.9	4.3
	Black/Other	2.8	2.7	2.5
Disability * **	No disability	91.0	92.0	90.5
	Disability	9.0	8.0	9.5
Social class* **	High	57.2	49.5	42.2
	Intermediate	18.2	20.9	23.2
	Low	9.3	12.6	15.5
	Unknown	15.3	17.0	19.2
Parent has HE qualifications* **	Yes	69.1	48.7	46.5
	No	23.8	22.3	34.9
	Unknown	7.0	29.0	18.5
SIMD	20% Most deprived	5.6	8.5	11.9
	2nd	9.5	13.5	15.4
	3rd	17.1	18.2	19.7
	4th	25.6	25.2	24.3
	20% Least deprived	42.2	34.6	28.7
Total		**100% (24,090)**	**100% (21,110)**	**100% (29,415)**

*p<0.05, **p<0.01, ***p<0.001

Table 4.6.2 presents the percentage of non-continuation among first-year students by HEI type. This percentage is highest in new universities and lowest in ancient universities.

Table 4.6.2: 1st year non-continuation rate by institution type (number of cases in brackets)

		% No longer in HE
Institution Type* **	Ancient Universities	3.9 (240)
	Old Universities	4.8 (255)
	New Universities	5.4 (450)

*p<0.05, **p<0.01, ***p<0.001

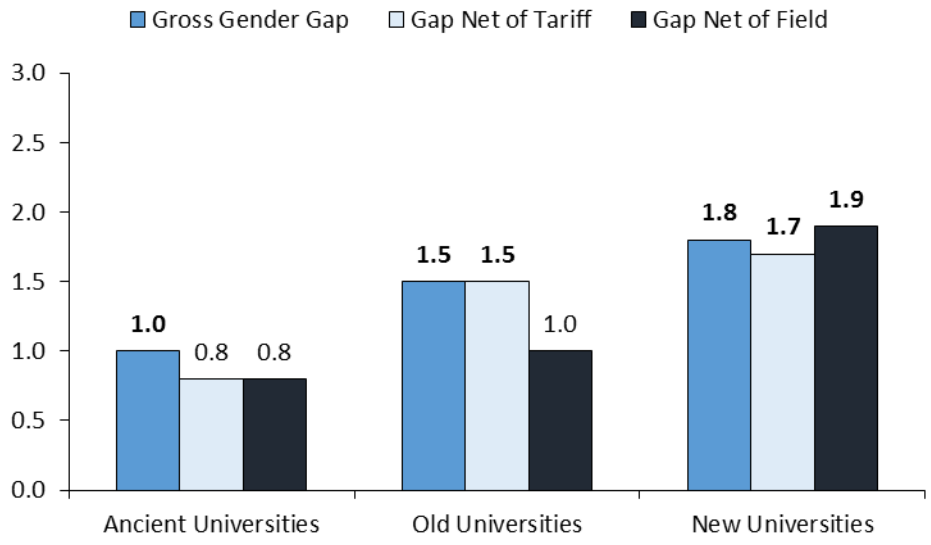
Student probability of non-continuation in different HEIs was further explored by logistic regression models (for full details of the results, see tables A.4.3-A.4.8 in the appendix). The results show that young men are more likely to drop out than young women, regardless of the HEI type they attend. Figure 4.6.1 illustrates this finding. In the ancient universities, the probability of dropping out during the first year is 1 percentage point higher

for young men than for young women, controlling for protected characteristic, SES and SIMD. However, when tariff scores are taken into account, this gender gap reduces to 0.8 percentage points and becomes non-significant. This finding suggests that in ancient universities, prior attainment explains about 20% of the gender gap in the chances of dropping out during the first year.

In old universities, the probability of dropping out is about 1.5 percentage points higher for young men than for young women. This gender gap holds once tariff scores are taken into account but reduces to 1.0 percentage point when gender differences in the choice of field of study are considered. This finding suggests that, while prior attainment does not explain the gender gap in the chances of dropping out from old universities, field of study appears to be an important factor, explaining about 33% of the difference in non-continuation chances between young men and young women.

Gender gap is also seen in new universities, wherein the probability of dropping out is higher by about 1.8 percentage point for young men than for young women. However, in these institutions prior attainment and field of study seem to have little or no effect on the variation in the chances of the two genders of dropping out.

Figure 4.6.1: Percentage point difference in 1st year young men probability of dropping out when compared to young women (n=8,335-5,360, significant results in bold)

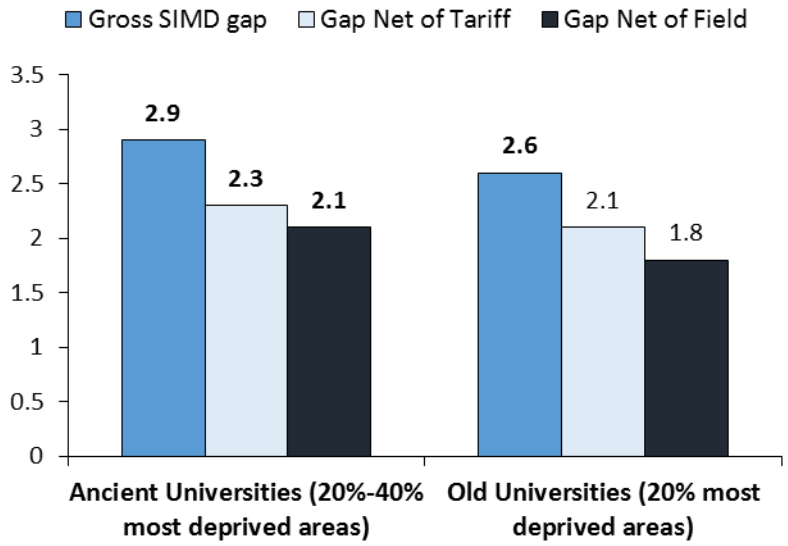


The results of the statistical models further indicate that in ancient universities, but not in the other HEIs, the probability of dropping out during the 1st year is about 2.0 percentage points higher for disabled students than for non-disabled students, after controlling for gender, ethnicity, SES and SIMD. However, this non-continuation gap reduces to roughly 1.0 point and becomes non-significant once tariff scores are included in the model. This finding suggests that prior attainment explains about 50% of the difference in the probability of dropping out between disabled and non-disabled students in the ancient universities.[17]

[17] Differences in the probability of dropping out by ethnicity at the three HEI types were also explored. However, the small number of cases involved prevents us from presenting the results.

While there are no differences in the chances of dropping out during their first year among students in the least and most deprived areas studying in new universities, Figure 4.6.2 shows variations in ancient and old universities. In ancient universities, the probability of dropping out is nearly 3 percentage points higher for students in the 4th most deprived quintile (but not for those in the most deprived quintile, possibly due to small number of cases) than for students in the 20% least deprived areas. The difference in the chances of dropping out remains significant but reduces to 2.3 and 2.1 percentage points respectively when tariff scores and field of study are taken into account. 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 during the first year among students in more and less deprived areas. Students from the 20% most deprived areas are also at greater risk of dropping out from old universities when compared with counterparts in the 20% least deprived areas. However, this gap becomes non-significant once tariff scores are considered.[18]

Figure 4.6.2: Percentage point difference in 1st year students' probability of dropping out for students in the most deprived areas when compared to those in the least deprived areas (n=8,335-5,360, significant results in bold)

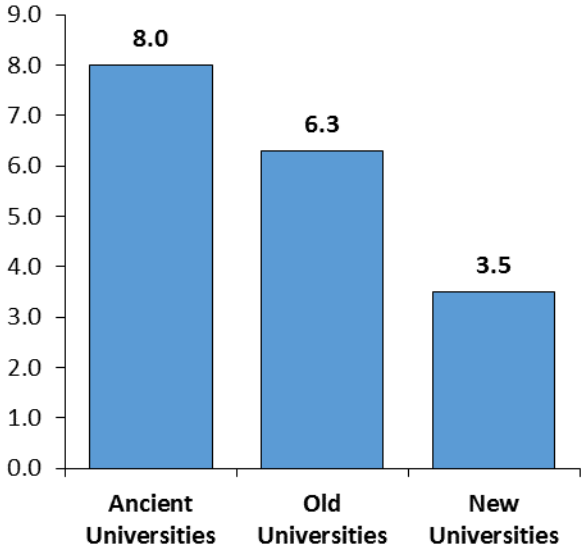


Finally, all models show that tariff score is a significant predictor of student non-continuation in all HEI types. Tariff scores have an effect on the estimated drop out chances above and beyond protected characteristics, SES, SIMD band and field of study. Regardless of the type of institution students attend, the probability of dropping out reduces as tariff scores increase. Nevertheless, the gap in the probability of dropping out among students with very high and very low prior attainment seems to be larger in ancient universities than in old universities. The smallest drop-out gap between the highest and lowest achievers is

[18] When social (dis)advantage was measured by parental social class and education, we additionally found that in ancient universities, the probability of dropping out is somewhat higher for low-social class students than for high social class peers, however this gap drops to a non-significant level once SIMD is taken into account. In addition, in new universities, students whose parents' educational qualifications are unknown, are more at risk of dropping out than students with parents who have HE qualifications. This gap in the chances of dropping out from new universities remains significant when protected characteristics, social class, SIMD, tariff scores and field of study are taken into account.

observed in new universities. As can be seen in Figure 4.6.3, in ancient universities, after controlling for all the other factors, the probability of dropping out is 8 percentage points higher for students with a tariff score that falls into the 20% lowest score band than for those with scores that fall into the 20% highest score band. In comparison, the non-continuation gap by tariff scores is 6.3 percentage points in old universities and 3.5 percentage points in new universities. The larger gap between students with high tariff scores and low tariff scores in the ancient universities is due to the high drop-out rates of low-tariff score students. In these universities drop-out rates of low-tariff score students are higher than the rates of the corresponding students in old and new universities.

Figure 4.6.3: Percentage point difference in the probability of dropping out for students with the 20% lowest tariff scores in comparison to those with the 20% highest tariff scores (n=8,335-5,360)



4.7 Non-continuation by field of study

Key findings:

- ***Student non-continuation rates are slightly higher in STEM subjects and business and mass communication than in social studies and humanities and art.***
- ***Young men are more likely than young women to drop out from STEM subjects, social studies and business and mass communications.***
- ***Students with parents who have no HE qualifications are more likely to drop out from STEM subjects and humanities and arts than peers with parents who have HE qualifications.***
- ***Students with low tariff scores are more likely to drop out from all fields of study, controlling for protected characteristic, SES, SIMD and HEI type.***

Table 4.7.1 presents non-continuation rates by field of study. The percentage of students who drop out from HE during the first year is just over 5% in STEM subjects and business and mass communication whereas non-continuation in social studies and humanities and arts is slightly lower.

Table 4.7.1: 1st year non-continuation by institution type and field of study (number of cases in brackets)

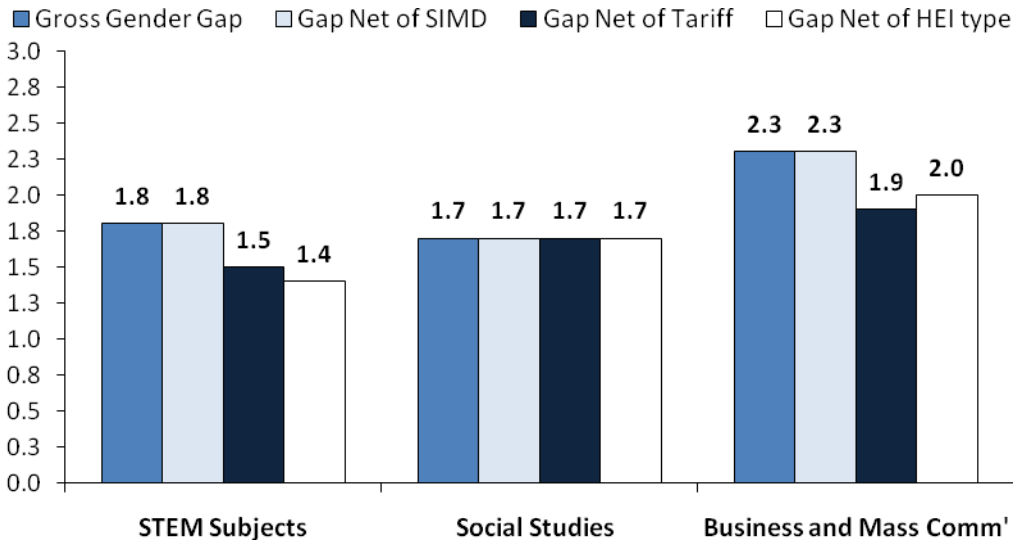
		% No longer in HE
Field of Study**	Subject allied to Medicine	4.8 (115)
	STEM Subjects	5.1 (400)
	Social Studies (Including Law & Education)	4.6 (165)
	Business & Mass Communication	5.2 (155)
	Humanities & Arts	4.5 (110)

**Significant differences at p<0.01

The non-continuation patterns by HEI type were further analysed using regression models (full estimates are presented in table A.4.9-A.4.18 in the appendix). As previously pointed out there is no indication that disabled students are more likely to drop out than non-disabled students, and this finding is consistent for all fields of study. There is some indication that students from Asian background are less likely to drop out than white students, particularly if they study STEM subjects and business and mass communication. In contrast, it seems that BME students enrolled in business and mass communication degrees (but not in other fields) are more at risk of dropping out than white students. However, these findings are based on a very small number of cases and therefore no robust conclusions can be drawn from these results.

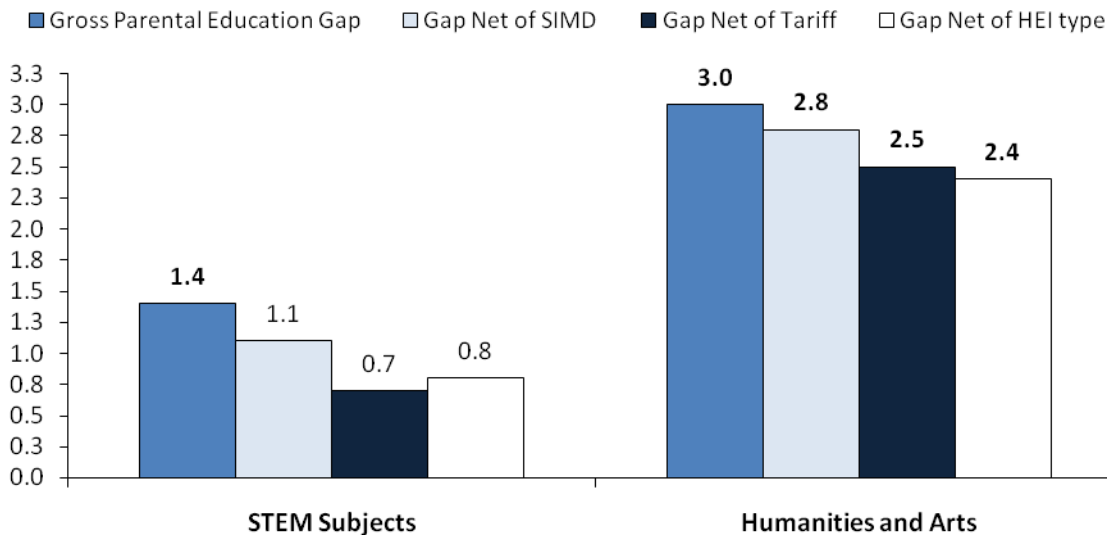
No gender differences were found in the chances of dropping out from subjects allied to medicine and humanities and arts. However, young men are more likely than young women to drop out from STEM subjects, social studies (including law and education) and business and mass communications. As illustrated in Figure 4.7.1, this gender gap holds when protected characteristic, SES, SIMD, tariff scores and HEI type are taken into account. For instance, the probability of dropping out from STEM subjects is 1.8 percentage points higher for young men than for young women. This gap reduces to 1.5 percentage points' difference when tariff score is taken into account, suggesting that prior attainment accounts for approximately 15% of the gender gap in the chances of dropping out from STEM subjects. The gender gap remains largely unchanged once HEI type is also considered. Similarly, the probability of dropping out from social studies and business and mass communication is 1.7 and 2.3 percentage points higher (respectively) for young men than for young women. In business and mass communications, this gender gap narrows when tariff scores are taken into account, but no similar reduction is detected in social studies. Taken together these findings suggest that in STEM subjects and business and mass communication (but not in social science), some of the gender gap in the probability of dropping out during the first year is explained by prior attainment.

Figure 4.7.1: Percentage point difference in 1st year probability of dropping out between men and women (n=7,920-2,940)



In addition, our results indicate that students whose parents have no HE qualifications or those for whom parents' education is unknown, are more at risk of dropping out than peers with highly educated parents, but only from STEM subjects and humanities and arts. Figure 4.7.2 displays these findings. In STEM subjects, the probability of dropping out is higher by roughly 1.4 percentage points for students whose parents have no HE qualifications. However, this difference reduces to a non-significant level once SIMD is taken into account and there is a further reduction when tariff scores are considered. The chances of dropping out from degrees within the humanities and arts is 3.0 percentage points higher for students with parents who have no HE qualifications than for peers with parents who have HE qualifications. The drop out gap is reduced to 2.5 percentage points' difference when tariff scores are taken into account, and to 2.4 percentage points when HEI type is also considered. This finding suggests that, even after controlling for protected characteristic, SES, SIMD, tariff scores and HEI type, parental education plays a significant role in explaining the gap in the chances of dropping out from the humanities and arts (but not from other fields of study).

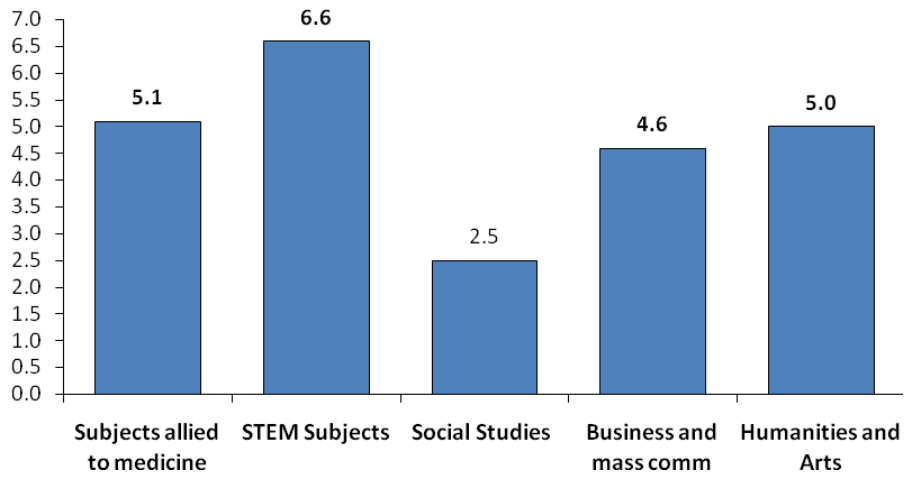
Figure 4.7.2: Percentage point difference in 1st year students' probability of dropping out by parental education (n=7,920-2,375, significant results in bold)



The only variation found across fields of study in the link between SIMD and non-continuation chances relates to students studying STEM subjects. Students in more deprived areas have greater chances of dropping out from STEM subjects and social studies than students in the least deprived areas, but not from other fields of study (Table A.4.12). Specifically, the probability of dropping out is 2.7 percentage points higher for students in the 20%-40% most deprived areas than for those in the least deprived area quintile. This gap holds but narrows to about 2 percentage point difference once tariff and HEI are taken into account.

The models further demonstrate strong associations between student non-continuation and tariff scores. This is detected in all fields of study, even though it is much weaker in social studies. Students' probability of dropping out is higher among those who entered with low tariff scores. As can be seen in Figure 4.7.3, after controlling for protected characteristics, SES, SIMD band and HEI type the probability of dropping out from subjects allied to medicine is about 5 percentage points higher for students with a tariff score that falls into the lowest 20% score band than for those with scores that fall into the 20% highest score band. The gap is even larger in STEM subjects, where the non-continuation chances of students with very low tariff scores are over 6.5 percentage points higher than the chances of students with very high tariff scores. Similarly, the chances of dropping out from business and mass communication as well as from arts and humanities are 4.6 and 5.0 percentage points higher for students with very low tariff scores than for students with very high tariff scores. Taken together, these findings highlight the important role that prior attainment plays in explaining the estimated drop out chances of students in almost all fields of study.

Figure 4.7.3: Percentage point difference in 1st year students' probability of dropping out between students with low and high tariff scores in different fields of study (n=7,890-2,355)



4.8 Student non-continuation beyond the 1st year

Key findings

- ***Non-continuation rates are lower among students in second, third and fourth year of study.***
- ***SHEP students enrolled in the second year are equally likely to drop out as other students***
- ***Less marked but similar patterns of non-continuation by protected characteristic and socio-economic status are found as for first-year students.***

In the academic year 2012-13, a total number of 845 dropped out from higher education in the 2nd, 3rd and 4th year (combined). The patterns described in relation to the characteristics of students who are more likely to drop out in their first-year of degree programme are reproduced for the subsequent years, but differences are less marked. Second-year SHEP students are equally likely to drop out as other students: in both groups, the dropout rate is about 1.7%. The rate of non-continuation continues to be higher among men (2.1%) than among women (1.1%) in years 2 to 4. While there is no variation in the non-continuation rates of white and BME students, disabled students are somewhat more likely to drop out than non-disabled students (2% compared to 1.5% respectively).

In addition, there are small differences across the levels of social class: a higher non-continuation rate is detected among students in low social class families (1.8%) than among students in high social class families (1.4%). Similarly, students seem to be at more risk of dropping out in years 2 to 4 if they have parents with no HE qualification - but again, this non-continuation gap is small. Variation by SIMD quintiles suggests that the groups most at

risk of dropping out beyond the first year comprises students in the 2 most deprived area quintiles.

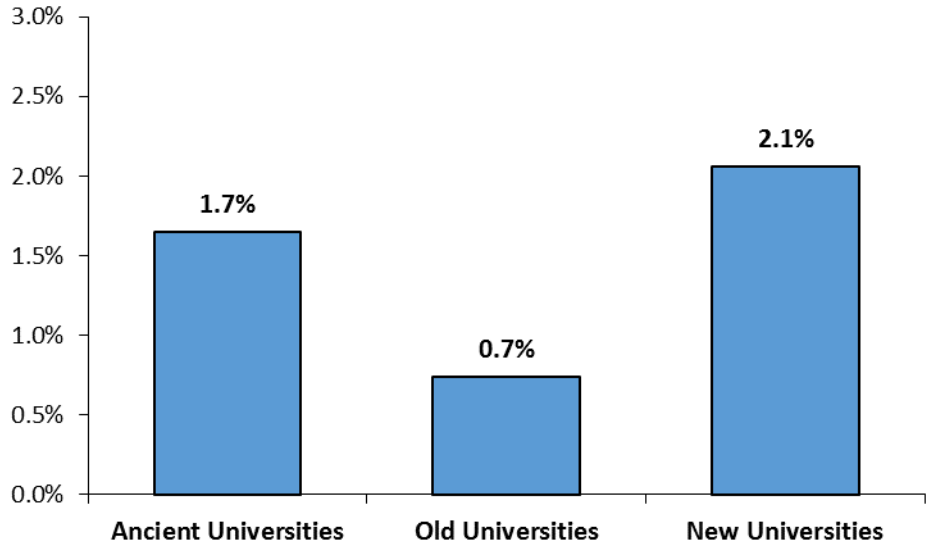
Table 4.8.1: Students non-continuation in years 2 to 4, by PC and SES (percentages)

		2nd to 4th year
Gender***	Men	2.1
	Women	1.1
Ethnicity	White	1.5
	BME	1.7
Disability**	No disability	1.5
	Disability	2.0
Social class***	High	1.4
	Intermediate	1.5
	Low	1.8
	Unknown	1.9
Parental education**	Yes	1.5
	No	1.8
	Don't know	1.4
SIMD **	20% Most deprived	1.8
	2nd	2.0
	3rd	1.5
	4th	1.5
	20% Least deprived	1.3
	Total	**100 (N=54,980)**

Significance levels: **p<0.01, ***p<0.001

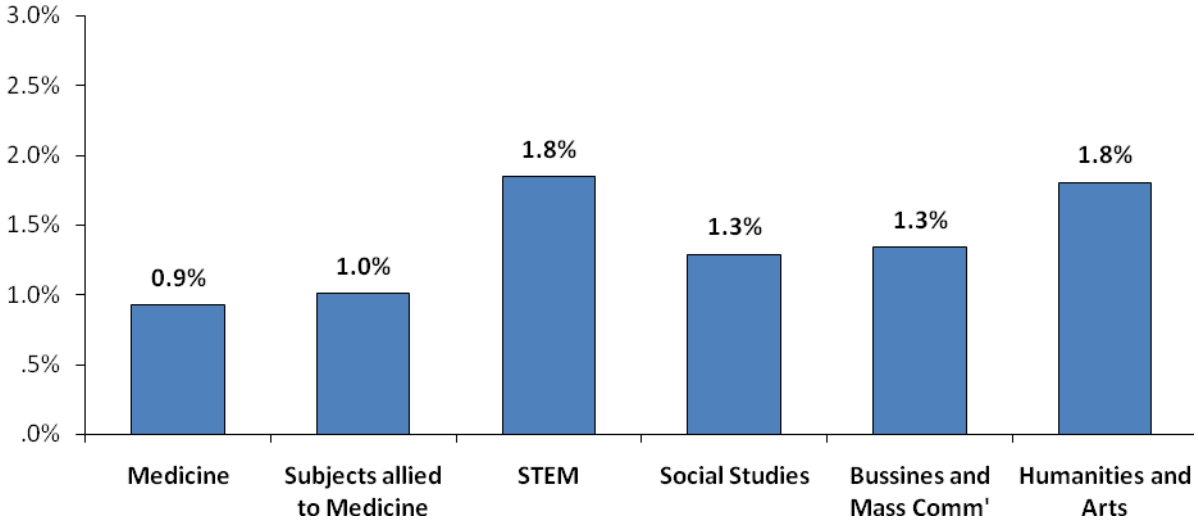
Student non-continuation rate beyond the first year varies by HEI type. Figure 4.8.1 shows that, in years 2 to 4, 2.1% of all young full-time first degree students drop out from new universities and 1.7% from ancient universities. The dropout rate from old universities in less than 1%.

Figure 4.8.1: Student non-continuation rate by HEI type in years 2 to 4 (n=845)



There is also variation in students' non-continuation rates in years 2 to 4 by field of study, as shown in Figure 4.8.2. The dropout rate is slightly higher in STEM subjects and Humanities and arts (1.8%) than in social studies and business and mass communication (1.3%). The dropout rate is even lower among students of Medicine and those who study subjects allied to medicine (about 1%).

Figure 4.8.2: Student non-continuation rate by field of study in years 2 to 4 (n=845)



4.9 Reasons for non-continuation

Key findings:

- ***Academic reasons accounts for about 30% of all non-continuation cases in Scottish universities.***
- ***SHEP students are more likely to drop out due to academic reasons than Non-SHEP students, although the difference is small and not significant.***
- ***Disabled students seem more likely to drop out due to academic reasons than non-disabled students but this difference is not statistically significant.***
- ***BME students are more likely than white students to drop out for academic reasons.***
- ***Low SES students are slightly more likely to drop out due to academic reasons that high SES counterparts during their first year, however this pattern does not emerge in years 2 to 4.***

In this section we explore the reasons for students' non-continuation as recorded in the HESA data. Due to the small number of cases we have made a simple distinction between students who drop out due to academic difficulties and those who leave for other reasons, which include personal, financial and other reasons. About 30% of drop out cases are due to academic difficulties (Table 4.9.1). The percentage of students who dropped out during the first year due to academic failure is slightly higher among SHEP students than among Non-SHEP students (35.7% compared to 30.2%), however this difference is not statistically significant.

Table 4.9.1: SHEP and Non-SHEP 1st year students by reason for non-continuation (percentages)

	SHEP students	Non-SHEP students	All non-continuation
Academic reasons	35.7	30.2	30.5
Non-academic reasons^	64.3	69.8	69.5
Total	100 (N=70)	100 (N=850)	100 (N=920)

^Including health and financial reasons, unclassified reasons and going into employment.

Table 4.9.2 displays 1st year students' reasons for non-continuation by protected characteristics and SES. Young men are more likely than young women to drop out due to academic failure (36.2% compared to 25.9%, respectively). The percentage of students dropping out for academic reasons is higher for disabled students than for non-disabled students but this difference is not statistically significant. In contrast, there is a significant difference by ethnicity: BME students are more likely than white students to drop out for academic reasons (43.6% compared to 30.3%, correspondingly).

In addition, a higher percentage of students whose parents have no HE qualifications leave HE for academic reasons. Similar differences emerge also between low and high SES students and between students from the most deprived and the least deprived areas but in these cases these differences do not appear to be significant.

Table 4.9.2: 1st year students' reasons for non-continuation, by PC and SES (percentages)

		Academic reasons	Non academic reasons
Gender***	Men	36.2	63.8
	Women	25.9	74.1
Ethnicity*	White	30.3	69.7
	BME	43.6	56.4
Disability	No disability	30.4	69.6
	Disability	37.9	62.1
Social class	High	27.8	72.2
	Intermediate	33.0	67.0
	Low	36.1	63.9
	Unknown	33.3	66.7
Parent has HE qualifications?**	Yes	28.0	72.0
	No	29.7	70.3
	Unknown	42.9	57.1
SIMD	20% Most deprived	38.3	61.7
	2nd	37.5	62.5
	3rd	29.8	70.2
	4th	25.4	74.6
	20% Least deprived	30.5	69.5
	Total	**100 (N=295)**	**100 (N=650)**

In years 2 to 4, academic failure remains a more common reason for dropping out among young men than among young women, as shown in Table 4.9.3. The other significant variation in non-continuation rates is between students with highly educated parents and the other students: a higher percentage of students with parents who have HE qualifications dropped out for academic reasons than students with parents who don't have such qualifications.

Table 4.9.3: Reasons for non-continuation in years 2 to 4 (combined), by PC and SES (percentages)

		Academic reasons	Non academic reasons
Gender***	Men	39.3	60.7
	Women	28.1	71.9
Ethnicity	White	35.1	64.9
	BME	28.3	71.7
Disability	No disability	34.7	65.3
	Disability	34.0	66.0
Social class	High	36.7	63.3
	Intermediate	38.2	61.8
	Low	26.8	73.2
	Unknown	32.6	67.4
Parent has HE qualifications?**	Yes	35.6	64.4
	No	28.9	71.1
	Unknown	41.9	58.1
SIMD	20% Most deprived	37.3	62.7
	2nd	39.4	60.6
	3rd	31.3	68.9
	4th	28.5	71.5
	20% Least deprived	38.4	61.6
	Total	**100 (N=290)**	**100 (N=550)**

5. Summary

This research project examined non-continuation patterns of various groups of Scottish-domiciled students enrolled in a HEI in the academic year 2012/13. The study used the HESA student record and focused on young full-time first degree students. Both descriptive statistics and more advanced quantitative models were applied.

The main findings in relation to the main questions addressed by this study are summarised below.

Are SHEP students more, less or equally likely to drop out of HE than Non-SHEP students?

In 2012/13, 6.7% of all 1st year students were students from SHEP schools. In comparison with Non-SHEP students, a higher proportion of SHEP students come from low SES families and/or reside in the most deprived areas in Scotland. Moreover, SHEP students entered HE with a lower average tariff score than Non-SHEP students.

Despite these differences, we did not find evidence of significant differences in their probability of dropping out from HE. Similar percentages of SHEP and Non-SHEP students who did drop out recorded academic failure as their main reason for doing so.

Taken together, these findings indicate that in terms of retention, SHEP students are doing as well as other students.

Are students with protected characteristics (gender; disabilities; ethnic minorities) more at risk than others to drop out from HE?

In line with previous UK research, the current study shows that young men are more likely to drop out than young women. This gender gap holds after controlling for disability, ethnicity, parental education and occupation, SIMD, tariff scores, HEI type and field of study.

There is also evidence that young students from Asian backgrounds are less likely to drop out than white students, however because of the small number of cases in the analysis, this finding must be taken with caution. The analyses detected no significant difference in the probability of dropping out during the first year of degree programme between disabled and non-disabled students. It should be noted, however, that due to the small number of cases, we did not explore the various disability types. It is possible that while some disabled students are equally likely to drop out as non-disabled students, while some disability types put students at a higher risk of non-continuation than others. Moreover, young disabled students in HE may be a rather selected group, unrepresentative of the wider population of young disabled people in Scotland.

Are students from low SES groups more at risk than those from high SES groups to drop out from HE?

Our findings suggest that students from low SES families, with parents without HE qualifications, and from more deprived areas are more at risk of dropping out from HE compared to high SES peers. The analyses further indicate that differences in student non-continuation chances related to SIMD and parental education are larger than social-class differences. This may be linked to the quality of the information on parental occupation reported in the HESA data. Students may inaccurately report their parents' occupation and therefore the social-class variable may be less reliable in comparison to the simple information on parental education which asks whether parents have a degree or not. Moreover, it is worth noting that about 16% and 13% of cases have missing information on these two social background variables. The strong effect of the SIMD variable requires some consideration. It may testify the importance of factors related to students' home communities which are not captured by individual level measures of SES (as suggested by its significant effect after controlling for students' family factors).

Are articulating students more at risk of dropping out from HE than non-articulating students?

Our results show that articulating students are more likely than non-articulating students to drop out from HE. About 6% of those articulated into the 2nd year and 5.5% of those articulated into the 3rd year abandoned their studies, compared to respectively 2% and 1% of the non-articulating students.

These findings indicate that the transition into degree programmes is challenging for articulating students. Regardless of whether they entered directly into the 2nd or 3rd year, articulating students are at greater risk of dropping out than non-articulating counterparts in the same year of study. There is a need for further study into the experiences of

articulating students, as research in this area is limited. Such research would help to better understand difficulties encountered by these students in the transition from colleges to universities.

Do dropout rates vary according to the type of HEI? Do the chances of dropping out of students from low SES groups or with protected characteristics differ according to the type of HEI attended?

There are significant differences in the percentage of young students who drop out from HE in the three types of HEIs: these percentages were found to be higher in new than in old universities and in ancient universities. Moreover, the gender gap in the probability of dropping out was found to be larger in new universities than in old universities and in ancient universities. Prior attainment explains the variation in the chances of dropping out between young men and women more in the ancient universities than in the other two institution types.

Disabled students were found to be more likely to drop out than non-disabled students in ancient universities. However, this difference was mainly explained by students' tariff scores, suggesting that prior attainment may play an important role in the drop out risk for disabled students in these universities.

There is variation across HEI types in the association between SIMD band and non-continuation. Students in the 20%-40% most deprived areas are more likely to drop from ancient universities, controlling for a range of other background characteristics and fields of study. Students from the most deprived 20% of areas are at greater risk of dropping out from old universities when compared with their counterparts in the least deprived 20% of areas. However, this gap becomes non-significant once tariff scores are considered.

Do dropout rates vary according to the field of study? Do the chances of dropping out of students from low SES groups or with protected characteristics differ according to the field of study entered?

There is variation in non-continuation rates across different fields of study, with higher chances of dropping out among students studying STEM subjects and business and mass communication than among students in social studies and humanities and art.

Young men were found to be more likely than young women to drop out from STEM subjects, social studies and business and mass communications. Students with parents who have no HE qualifications (or unknown qualifications) are more likely to drop out than their peers with highly educated parents when studying STEM subjects and humanities and arts. Moreover, students from more deprived areas have greater chances of dropping out than students in the least deprived areas when studying STEM subjects.

What are the main reasons for non-continuation among young full-time first degree students?

As discussed in the literature review section, students may drop out from HE for various reasons. Often students withdraw because of multiple inter-related factors. However, the reasons for non-continuation can be generally categorised as either academic

or non-academic. Academic failure was recorded to be the main reason for about 30% of all non-continuation cases in Scottish universities. The results of the logistic regression models have shown that a considerable portion of the gender and SES gaps is explained by student attainment prior to entry into HE (see logistic regression models in the appendix). These findings are further supported by our analyses of the reasons for non-continuation, as recorded by the HESA dataset.

Among 1st year students, male, BME and low SES students are significantly more likely than female, white and high SES students respectively to drop out from HE for academic reasons. There is some indication that SHEP students and disabled students are more likely to drop out for academic reasons than Non-SHEP and non-disabled students respectively but these differences were found to be not statistically significant.

It is worth noting, however, that withdrawing due to academic reasons may hide personal reasons and economic constraints which may affect the students' ability to cope successfully with his or her academic studies. Due to data limitations, we were unable to explore this issue further.

6. Recommendations

6.1 Recommendations for policy

The study presented in this report suggests areas for improvement to promote higher retentions rates among Scottish young people.

- **Student support should be given at the beginning of HE studies**. Our study shows that students are more at risk of dropping out from HE during their first year than in subsequent years. Pre-arrival sessions, prolonged induction programmes but also courses aimed at improving study skills for first-year students may help to address this issue and improve retention rates.

- **Targeted academic support to students from low SES and PC groups should start from school and continue through the period of transition to HE**. Our study established that student attainment prior to entry to HE is a key factor for retention. Thus, more targeted support to improve attainment and guidance should be given at school-level as well as initiatives such as summer schools, bridging courses and mentoring may be helpful in reducing the risk of subsequently dropping out from HE. It is important to recognise that most disadvantaged students may find it economically challenging to attend pre-entry initiatives if not funded. Thus, grants and flexible delivery times should be built in these initiatives. There may be scope to encourage universities to be more involved in raising attainment in schools considering the role they have in initial teacher training and teachers' continuing professional development.

- **Even though the study could not directly evaluate the effectiveness of the SHEP initiatives, there are good reasons to believe that they have made a difference**. The lack of significant differences found when comparing SHEP and non-SHEP students testify that, despite a larger proportion of students from SHEP schools comes from low socio-

economic backgrounds, their chances of non-continuation are not different from the other students. It would be important to measure the impact of the SHEP programme at national level as well as regional level and establish whether some activities more than others under the SHEP flag are responsible for this positive outcome.

- **More academic support should be given to students from low SES in ancient and old universities**. Despite the overall lower drop-out rates, there are higher social class differences in retention in ancient universities. Prior attainment explains a larger proportion of the social class gap in these universities than in the others. Thus, the recommendations under the first two points are particularly relevant to these institutions.

- **Gender differences in non-continuation rates should be given more attention**. It is difficult to unpack the reasons why young men are more likely to drop out than young women. In our statistical modelling prior attainment explains very little.

- **The higher drop-out rates of articulating students also requires a more in depth analysis**. 'Articulation' is one of the strategies supported by the Scottish Government to improve the chances of gaining a degree for socially disadvantaged students. However, their transition to HEIs appears to be difficult and may require some additional intervention to make it more successful.

- **More attention should be paid to uncover the reasons for the higher drop-out rates in STEM subjects and business and mass communication.** Students studying applied subjects seem to face the most challenges in terms of retention. It would be important to establish whether this is due to students' lower preparedness in subjects such as maths and sciences than the level required by universities.

- **Regular monitoring of HE retention patterns should be introduced at national level**. This monitoring should go beyond the production of simple descriptive statistics to be able to disentangle the importance of different factors and explain differences across groups.

6.1 Recommendations for future research

- There is a need for more research on student retention in Scotland in order to be able to draw evidence-based policy recommendations. We have identified at least four areas where research is worth pursuing:
    - evaluation of the effectiveness of different WP interventions;
    - analysis of the reasons for dropping out for students with protected characteristics;
    - analysis of the reasons for dropping out for articulating students;
    - a comprehensive study which identifies successful inclusive practices in different types of universities and fields of studies.

- To be able to conduct the studies above, longitudinal data are needed which will allow us to follow a cohort of students over time, from the time they leave school, enter HE or College, progress into HE and ultimately achieve their final degree**.**
- Data on ethnic minorities and disable students are limited given the small number of cases available but can be looked at in more detail using polled data from successive years.
- This report has been confined to study young people's non-continuation rates. A similar study should be extended to include mature students and part time students, as these groups are traditionally known to be at greater risk of dropping out from HE then young full time students**.**

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Appendix

Table A.4.A: List of Higher Education Institutions in Scotland
Ancient Universities
1. The University of Aberdeen 2. The University of Edinburgh 3. The University of Glasgow 4. The University of St. Andrew
Old Universities
5. Heriot-Watt University 6. Stirling University 7. Strathclyde University 8. The University of Dundee
New Universities
9. Abertay University 10. Edinburgh Napier University 11. Glasgow Caledonian University 12. Queen Margaret University 13. Robert Gordon University 14. University of the Highlands and Islands 15. University of the West of Scotland
Other
16. Glasgow School of Art 17. Royal Conservatoire of Scotland 18. Scotland's Rural College 19. The Open University (not included in this study)

Table A.4.B: List of SHEP School in the Dataset (Alphabetically ordered, n=79)	
All Saints Secondary School	Islay High School
Alloa Academy	John Paul Academy
Alness Academy	Kincorth Academy
Arbroath Academy	Kinlochleven High School
Armadale Academy	Kirkland High School And Communi
Auchenharvie Academy	Larkhall Academy
Ayr Academy	Leith Academy
Baldragon Academy	Liberton High School
Bannockburn High School	Linwood High School
Beath High School	Lochend Community High School
Bellshill Academy	Lochgelly High School
Braeview Academy	Lornshill Academy
Braidhurst High School	Lossiemouth High School
Brechin High School	Maxwelltown High School
Buckhaven High School	Menzieshill High School
Calderhead High School	Newbattle High School
Caldervale High School	Northfield Academy
Castlebrae Community High School	Port Glasgow High School
Castlemilk High School	Rosshall Academy
Cathkin High School	Sanquhar Academy
Clyde Valley High School	Smithycroft Secondary School
Coatbridge High School	Springburn Academy
Craigie High School	St Andrew's Secondary School
Craigroyston Community High Scho	St Machar Academy
Doon Academy	St Margaret Mary's Secondary Sch
Drumchapel High School	St Mungo's Academy

Drummond Community High School	St Paul's High School
Eastbank Academy	St Paul's Rc Academy
Elgin High School	St Roch's Secondary School
Eyemouth High School	St Stephen's High School
Forrester High School	Torry Academy
Glenwood High School	Tynecastle High School
Gracemount High School	Vale Of Leven Academy
Grangemouth High School	Viewforth High School
Hawick High School	Wester Hailes Education Centre
Hillpark Secondary School	Whitburn Academy
Inveralmond Community High School	Whitehill Secondary School
Inverclyde Academy	Wick High School
Inverness High School	Woodmill High School
Irvine Royal Academy	

Table A.4.1: Logistic regression models estimating the probability of dropping out from HE during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SHEP	SHEP+PC+ SES	SHEP+PC+ SES+SIMD	SHEP+PC+ SES+SIMD+ TARIFF	SHEP+PC+ SES+SIMD+ TARIFF+HEI	SHEP+PC+ SES+SIMD+ TARIFF+HEI+FIELD
	b/se	b/se	b/se	b/se	b/se	b/se
SHEP Student	0.146	0.089	0.010	0.042	0.042	0.041
	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)
Young Men		**0.310*****	**0.322*****	**0.314*****	**0.310*****	**0.313*****
		(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Asian		**-0.847*****	**-0.848*****	**-0.826*****	**-0.824*****	**-0.825*****
		(0.24)	(0.24)	(0.24)	(0.24)	(0.24)
Black/Mixed/Other		0.341	0.311	0.317	0.312	0.313
		(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
No Disability		-0.118	-0.115	-0.028	-0.027	-0.024
		(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
Intermediate Social Class		0.011	-0.006	-0.044	-0.042	-0.042
		(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Low Social Class		0.119	0.054	-0.012	-0.010	-0.008
		(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Unknown Social Class		0.150	0.127	0.078	0.081	0.087
		(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
Parents - No HE qualifications		**0.232****	**0.193***	0.114	0.122	0.117
		(0.08)	**(0.08)**	(0.08)	(0.08)	(0.08)
Parents qualifications unknown		**0.349*****	**0.316****	0.194	0.191	0.183
		(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
SIMD - 2nd quintile			0.110	0.069	0.071	0.074
			(0.09)	(0.09)	(0.09)	(0.09)
SIMD - 3rd quintile			**0.249***	0.183	0.187	0.193
			(0.10)	(0.10)	(0.10)	(0.10)
SIMD - 4th quintile			**0.253***	0.162	0.165	0.167
			(0.11)	(0.11)	(0.11)	(0.11)
SIMD - 20% Most deprived			**0.378****	**0.250***	**0.258***	**0.263***
			(0.12)	(0.12)	(0.12)	(0.12)
Tariff - 2nd highest score band				**0.651*****	**0.664*****	**0.601*****

				(0.15)	(0.15)	(0.15)
Tariff - 3rd highest score band				**0.720*** **	**0.753*** **	**0.677*** **
				(0.15)	(0.15)	(0.15)
Tariff - 4th highest score band				**1.140*** **	**1.195*** **	**1.117*** **
				(0.14)	(0.15)	(0.15)
Tariff - 20% lowest scores				**1.275*** **	**1.362*** **	**1.287*** **
				(0.14)	(0.15)	(0.16)
Tariff - Missing				**1.103*** **	**1.163*** **	**1.098*** **
				(0.15)	(0.15)	(0.15)
Old Universities					0.012	-0.015
					(0.10)	(0.10)
New Universities					-0.125	-0.176
					(0.09)	(0.10)
Subjects allied to Medicine						**1.136** **
						(0.43)
STEM						**1.117** **
						(0.42)
Social studies						**1.096** **
						(0.42)
Business and Communication						**1.222** **
						(0.43)
Humanities and Arts						**1.090***
						(0.43)
Constant	-3.030***	-3.212***	-3.332***	-4.160***	-4.157***	-5.180***
	(0.04)	(0.13)	(0.14)	(0.18)	(0.18)	(0.44)
N	19,724	19,724	19,660	19,660	19,660	19,660

Reference categories: Non-SHEP students, Young Men, White, Disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities, Medicine.

Table A.4.2: Marginal effects Models following logistic regression models estimating the probability of dropping out from HE during the 1st year (*p<0.05, **p<0.01)

	SHEP	SHEP+PC+ SES	SHEP+PC+ SES+SIMD	SHEP+PC+ SES+SIMD+ TARIFF	SHEP+PC+ SES+SIMD+ TARIFF+ HEI	SHEP+PC+ SES+ SIMD+TARIFF+ HEI +FIELD
SHEP Student	0.00687	0.00395	0.000418	0.00171	0.00170	0.00164
	(0.00635)	(0.00597)	(0.00569)	(0.00552)	(0.00551)	(0.00543)
Young Men		**0.0137****	**0.0141****	**0.0129****	**0.0127****	**0.0126****
		(0.00305)	(0.00305)	(0.00286)	(0.00286)	(0.00302)
Asian		**-0.0258****	**-0.0257****	**-0.0236****	**-0.0235****	**-0.0232****
		(0.00501)	(0.00497)	(0.00474)	(0.00474)	(0.00468)
Black/Mixed/Other		0.0176*	0.0157	0.0150	0.0147	0.0146
		(0.0106)	(0.0105)	(0.00990)	(0.00984)	(0.00974)
No Disability		-0.00530	-0.00515	-0.00114	-0.00108	-0.000962
		(0.00571)	(0.00570)	(0.00501)	(0.00500)	(0.00493)
Intermediate Social Class		0.000447	-0.000252	-0.00171	-0.00166	-0.00161
		(0.00382)	(0.00382)	(0.00357)	(0.00356)	(0.00351)
Low Social Class		0.00520	0.00231	-0.000468	-0.000413	-0.000302
		(0.00489)	(0.00479)	(0.00437)	(0.00437)	(0.00431)
Unknown Social Class		0.00667	0.00563	0.00324	0.00333	0.00356
		(0.00444)	(0.00443)	(0.00413)	(0.00413)	(0.00410)
Parents - No HE qualifications		**0.0100****	**0.00825***	0.00453	0.00489	0.00462
		(0.00362)	**(0.00360)**	(0.00333)	(0.00335)	(0.00330)
Parents qualifications unknown		**0.0159****	**0.0143****	0.00803	0.00788	0.00742
		(0.00490)	(0.00485)	(0.00433)	(0.00437)	(0.00430)
SIMD - 2nd quintile			0.00435	0.00261	0.00267	0.00276
			(0.00373)	(0.00357)	(0.00356)	(0.00351)
SIMD - 3rd quintile			**0.0105***	0.00730	0.00744	0.00760
			(0.00430)	(0.00405)	(0.00405)	(0.00401)
SIMD - 4th quintile			**0.0107***	0.00639	0.00651	0.00646
			(0.00497)	(0.00459)	(0.00459)	(0.00453)
SIMD - 20% Most deprived			**0.0169****	**0.0103**	**0.0106***	**0.0107***
			(0.00595)	(0.00534)	(0.00536)	(0.00530)
Tariff - 2nd highest score band				**0.0172****	**0.0170****	**0.0155****
				(0.00388)	(0.00377)	(0.00382)

Tariff - 3rd highest score band				**0.0197****	**0.0202****	**0.0182****
				(0.00402)	(0.00398)	(0.00400)
Tariff - 4th highest score band				**0.0390****	**0.0406****	**0.0379****
				(0.00481)	(0.00494)	(0.00493)
Tariff - 20% lowest scores				**0.0469****	**0.0506****	**0.0478****
				(0.00512)	(0.00573)	(0.00573)
Tariff - Missing				**0.0370****	**0.0388****	**0.0368****
				(0.00498)	(0.00513)	(0.00516)
Old Universities					0.000516	-0.000611
					(0.00409)	(0.00414)
New Universities					-0.00492	-0.00686
					(0.00377)	(0.00389)
Subjects allied to Medicine						**0.0287****
						(0.00727)
STEM						**0.0279****
						(0.00629)
Social Studies						**0.0271****
						(0.00670)
Business and Mass Communication						**0.0324****
						(0.00711)
Humanities and Arts						**0.0269****
						(0.00709)
N	19,724	19,724	19,660	19,660	19,660	19,660

Standard errors in parentheses; All predictors at their mean value; Reference categories: Non-SHEP students, Young Men, White, Disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities, Medicine.

Table A.4.3: ANCIENT UNIVERSITIES - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF +FIELD
	b/se	b/se	b/se	b/se
Young Men	**0.279***	**0.297***	**0.263***	0.267
	(0.13)	(0.13)	(0.13)	(0.14)
Asian	**-1.671***	**-1.676***	**-1.685***	**-1.668***
	(0.72)	(0.72)	(0.72)	(0.72)
Black/Mixed/Other	0.247	0.236	0.234	0.236
	(0.33)	(0.35)	(0.36)	(0.36)
Disabled student	**0.505***	**0.504***	0.370	0.328
	(0.21)	(0.21)	(0.21)	(0.21)
Intermediate Social Class	0.282	0.242	0.217	0.219
	(0.18)	(0.18)	(0.18)	(0.18)
Low Social Class	**0.528***	**0.467***	0.394	0.399
	(0.21)	(0.22)	(0.22)	(0.22)
Unknown Social Class	0.343	0.323	0.288	0.296
	(0.19)	(0.20)	(0.20)	(0.20)
Parents - No HE qualifications	0.224	0.157	0.058	0.064
	(0.16)	(0.16)	(0.16)	(0.16)
Parents qualifications unknown	0.354	0.312	0.221	0.196
	(0.27)	(0.27)	(0.28)	(0.28)
SIMD - 2nd quintile		**0.340***	0.301	0.301
		(0.17)	(0.17)	(0.17)
SIMD - 3rd quintile		0.296	0.253	0.249
		(0.20)	(0.20)	(0.20)
SIMD - 4th quintile		**0.746*****	**0.652****	**0.638****

		(0.21)	(0.21)	(0.21)
SIMD - 20% Most deprived		0.257	0.117	0.125
		(0.28)	(0.29)	(0.29)
Tariff - 2nd highest score band			**0.688*** **	**0.624** **
			(0.21)	(0.21)
Tariff - 3rd highest score band			**0.695** **	**0.617** **
			(0.23)	(0.23)
Tariff - 4th highest score band			**1.498*** **	**1.418*** **
			(0.22)	(0.22)
Tariff - 20% lowest scores			**1.845*** **	**1.785*** **
			(0.28)	(0.28)
Tariff - Missing			**0.888*** **	**0.826** **
			(0.26)	(0.26)
Subjects allied to Medicine				**1.244***
				(0.59)
STEM				**1.099***
				(0.52)
Social Studies				0.809
				(0.53)
Business and Mass Communication				**1.282***
				(0.59)
Humanities and Arts				**1.347***
				(0.53)
Constant	-3.612***	-3.835***	-4.430***	-5.430***
	(0.12)	(0.15)	(0.20)	(0.53)
N	6,201	6,169	6,169	6,169

Standard errors in parentheses; Reference categories: Young Women, White, No Disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Medicine.

Table A.4.4: ANCIENT UNIVERSITIES - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + FIELD
Young Men	**0.00995***	**0.0104***	0.00813	0.00790
	(0.00478)	(0.00470)	(0.00420)	(0.00416)
Asian	**-0.0307****	**-0.0301****	**-0.0267****	**-0.0254****
	(0.00580)	(0.00567)	(0.00505)	(0.00495)
Black/Mixed/Other	0.0102	0.00946	0.00835	0.00808
	(0.0153)	(0.0156)	(0.0140)	(0.0134)
Disabled student	**0.0217***	**0.0212***	0.0131	0.0109
	(0.0107)	(0.0105)	(0.00863)	(0.00803)
Intermediate Social Class	0.00980	0.00818	0.00654	0.00630
	(0.00648)	(0.00629)	(0.00560)	(0.00536)
Low Social Class	**0.0207***	0.0177	0.0130	0.0126
	(0.00975)	(0.00936)	(0.00807)	(0.00774)
Unknown Social Class	0.0123	0.0114	0.00899	0.00885
	(0.00753)	(0.00749)	(0.00666)	(0.00642)
Parents - No HE qualifications	0.00813	0.00551	0.00178	0.00186
	(0.00599)	(0.00583)	(0.00499)	(0.00480)
Parents qualifications unknown	0.0137	0.0118	0.00728	0.00611
	(0.0121)	(0.0117)	(0.00992)	(0.00930)
SIMD - 2nd quintile		0.0111	0.00882	0.00844
		(0.00581)	(0.00525)	(0.00505)
SIMD - 3rd quintile		0.00943	0.00725	0.00681
		(0.00658)	(0.00590)	(0.00565)
SIMD - 4th quintile		**0.0297****	**0.0228****	**0.0212***
		(0.00994)	(0.00863)	(0.00824)

SIMD - 20% Most deprived		0.00805	0.00314	0.00321
		(0.00960)	(0.00793)	(0.00766)
Tariff - 2nd score band			**0.0171****	**0.0150****
			(0.00532)	(0.00515)
Tariff - 3rd score band			**0.0174****	**0.0148***
			(0.00627)	(0.00597)
Tariff - 4th score band			**0.0576****	**0.0521****
			(0.0110)	(0.0105)
Tariff - 20% lowest scores			**0.0857****	**0.0800****
			(0.0213)	(0.0206)
Tariff - Missing			**0.0246****	**0.0220****
			(0.00864)	(0.00826)
Subjects allied to Medicine				**0.0267***
				(0.0122)
STEM				**0.0218****
				(0.00670)
Social Studies				**0.0137***
				(0.00679)
Business and Mass Communication				**0.0282***
				(0.0127)
Humanities and Arts				**0.0307****
				(0.00828)
N	6,201	6,169	6,169	6,169

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Medicine.

Table A.4.5: OLD UNIVERSITIES - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + FIELD
	b/se	b/se	b/se	b/se
Young Men	**0.344****	**0.344****	**0.370****	0.255
	(0.13)	(0.13)	(0.13)	(0.14)
Asian	**-1.383***	**-1.390***	**-1.310***	**-1.320***
	(0.59)	(0.59)	(0.59)	(0.59)
Black/Mixed/Other	-0.040	-0.080	-0.156	-0.124
	(0.39)	(0.40)	(0.40)	(0.40)
Disabled student	0.056	0.062	-0.032	-0.025
	(0.24)	(0.24)	(0.24)	(0.24)
Intermediate Social Class	-0.070	-0.090	-0.141	-0.169
	(0.18)	(0.18)	(0.18)	(0.18)
Low Social Class	0.352	0.233	0.178	0.191
	(0.20)	(0.20)	(0.20)	(0.20)
Unknown Social Class	0.175	0.146	0.144	0.126
	(0.18)	(0.18)	(0.19)	(0.19)
Parents - No HE qualifications	0.115	0.049	0.013	-0.005
	(0.16)	(0.17)	(0.17)	(0.17)
Parents qualifications unknown	0.160	0.118	0.020	0.046
	(0.16)	(0.17)	(0.17)	(0.17)
SIMD - 2nd quintile		-0.101	-0.140	-0.144
		(0.18)	(0.18)	(0.19)
SIMD - 3rd quintile		0.201	0.143	0.122
		(0.19)	(0.19)	(0.19)
SIMD - 4th quintile		0.382	0.336	0.338
		(0.20)	(0.20)	(0.20)

SIMD - 20% Most deprived		**0.533***	**0.467***	0.415
		(0.22)	(0.22)	(0.22)
Tariff - 2nd highest score band			**0.670***	**0.601***
			(0.27)	(0.27)
Tariff - 3rd highest score band			**0.870****	**0.808****
			(0.27)	(0.27)
Tariff - 4th highest score band			**1.333*****	**1.274*****
			(0.27)	(0.27)
Tariff - 20% lowest scores			**1.525*****	**1.532*****
			(0.29)	(0.30)
Tariff - Missing			**1.087*****	**1.057*****
			(0.29)	(0.29)
Subjects allied to Medicine				0.770
				(0.75)
STEM				1.064
				(0.73)
Social Studies				1.077
				(0.74)
Business and Mass Communication				0.447
				(0.76)
Humanities and Arts				0.381
				(0.76)
Constant	-3.257***	-3.337***	-4.161***	-4.944***
	(0.13)	(0.15)	(0.26)	(0.73)
N	5,377	5,362	5,362	5,362

Standard errors in parentheses; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Medicine.

Table A.4.6: OLD UNIVERSITES - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + FIELD
Young Men	**0.0153****	**0.0150****	**0.0148****	0.00978
	(0.00580)	(0.00573)	(0.00538)	(0.00556)
Asian	**-0.0357****	**-0.0351****	**-0.0312****	**-0.0302****
	(0.00783)	(0.00765)	(0.00754)	(0.00723)
Black/Mixed/Other	-0.00181	-0.00347	-0.00603	-0.00468
	(0.0175)	(0.0166)	(0.0143)	(0.0143)
Disabled student	0.00251	0.00273	-0.00124	-0.000935
	(0.0109)	(0.0108)	(0.00927)	(0.00901)
Intermediate Social Class	-0.00283	-0.00357	-0.00514	-0.00588
	(0.00710)	(0.00707)	(0.00640)	(0.00613)
Low Social Class	0.0172	0.0108	0.00749	0.00787
	(0.0105)	(0.00995)	(0.00897)	(0.00883)
Unknown Social Class	0.00787	0.00649	0.00597	0.00502
	(0.00851)	(0.00841)	(0.00800)	(0.00769)
Parents - No HE qualifications	0.00500	0.00207	0.000518	-0.000197
	(0.00726)	(0.00711)	(0.00656)	(0.00627)
Parents qualifications unknown	0.00713	0.00517	0.000807	0.00177
	(0.00756)	(0.00747)	(0.00665)	(0.00655)
SIMD - 2nd quintile		-0.00374	-0.00482	-0.00481
		(0.00676)	(0.00630)	(0.00612)
SIMD - 3rd quintile		0.00857	0.00562	0.00461
		(0.00824)	(0.00757)	(0.00728)
SIMD - 4th quintile		0.0177*	0.0144	0.0141
		(0.00997)	(0.00923)	(0.00901)

SIMD - 20% Most deprived		**0.0265***	0.0214	0.0180
		(0.0126)	(0.0115)	(0.0108)
Tariff - 2nd highest score band			**0.0173****	**0.0150***
			(0.00659)	(0.00643)
Tariff - 3rd highest score band			**0.0249****	**0.0225****
			(0.00722)	(0.00707)
Tariff - 4th highest score band			**0.0490****	**0.0454****
			(0.00973)	(0.00954)
Tariff - 20% lowest scores			**0.0621****	**0.0628****
			(0.0137)	(0.0147)
Tariff - Missing			**0.0349****	**0.0335****
			(0.00987)	(0.00981)
Subjects allied to Medicine				0.0192
				(0.0143)
STEM				**0.0311***
				(0.0131)
Social Studies				**0.0317***
				(0.0142)
Business and Mass Communication				0.00946
				(0.0138)
Humanities and Arts				0.00780
				(0.0136)
N	5,377	5,362	5,362	5,362

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Medicine.

Table A.4.7: NEW UNIVERSITIES - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + FIELD
Young Men	**0.352*** **	**0.356*** **	**0.342*** **	**0.387*** **
	(0.10)	(0.10)	(0.10)	(0.11)
Asian	-0.483	-0.471	-0.450	-0.466
	(0.29)	(0.29)	(0.29)	(0.29)
Black/Mixed/Other	**0.630** **	**0.611** *	**0.639** **	**0.631** *
	(0.24)	(0.24)	(0.24)	(0.25)
Disabled student	0.039	0.016	-0.045	-0.030
	(0.17)	(0.18)	(0.18)	(0.18)
Intermediate Social Class	-0.102	-0.102	-0.117	-0.111
	(0.13)	(0.13)	(0.13)	(0.13)
Low Social Class	-0.193	-0.201	-0.241	-0.228
	(0.16)	(0.16)	(0.16)	(0.16)
Unknown Social Class	0.068	0.067	0.020	0.028
	(0.14)	(0.14)	(0.14)	(0.14)
Parents - No HE qualifications	0.211	0.197	0.185	0.182
	(0.11)	(0.11)	(0.11)	(0.12)
Parents qualifications unknown	**0.417** **	**0.419** **	**0.359** **	**0.349** *
	(0.14)	(0.14)	(0.14)	(0.14)
SIMD - 2nd quintile		0.057	0.048	0.063
		(0.14)	(0.14)	(0.14)
SIMD - 3rd quintile		0.138	0.104	0.126
		(0.14)	(0.14)	(0.14)
SIMD - 4th quintile		-0.164	-0.228	-0.207
		(0.17)	(0.17)	(0.17)
SIMD - 20% Most deprived		0.173	0.100	0.119
		(0.16)	(0.16)	(0.17)
Tariff - 2nd highest score band			0.284	0.264
			(0.39)	(0.39)
Tariff - 3rd highest score band			0.256	0.232
			(0.37)	(0.37)
Tariff - 4th highest score band			0.541	0.515
			(0.36)	(0.36)
Tariff - 20% lowest scores			**0.874** *	**0.849** *
			(0.35)	(0.35)
Tariff - Missing			**0.874** *	**0.866** *

			(0.35)	(0.35)
STEM				-0.096
				(0.16)
Social Studies				0.038
				(0.18)
Business and Mass Communication				0.166
				(0.16)
Humanities and Arts				-0.115
				(0.22)
Constant	-2.747***	-2.802***	-3.459***	-3.420***
	(0.18)	(0.19)	(0.39)	(0.41)
N	8,336	8,319	8,319	8,319

Standard errors in parentheses; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Medicine.

Table A.4.8: NEW UNIVERSITIES - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + FIELD
Young Men	**0.0180****	**0.0181****	**0.0168****	**0.0191****
	(0.00513)	(0.00512)	(0.00500)	(0.00545)
Asian	**-0.0194***	**-0.0189***	**-0.0176**	**-0.0181***
	(0.00939)	(0.00945)	(0.00933)	(0.00918)
Black/Mixed/Other	**0.0416***	**0.0398***	**0.0409***	**0.0402***
	(0.0203)	(0.0201)	(0.0200)	(0.0199)
Disabled student	0.00194	0.000804	-0.00209	-0.00139
	(0.00880)	(0.00872)	(0.00812)	(0.00821)
Intermediate Social Class	-0.00498	-0.00498	-0.00560	-0.00525
	(0.00627)	(0.00627)	(0.00614)	(0.00612)
Low Social Class	-0.00905	-0.00937	-0.0109	-0.0103
	(0.00704)	(0.00711)	(0.00684)	(0.00684)
Unknown Social Class	0.00358	0.00352	0.00100	0.00140
	(0.00723)	(0.00725)	(0.00699)	(0.00698)
Parents - No HE qualifications	0.0101	0.00941	0.00862	0.00842
	(0.00553)	(0.00553)	(0.00541)	(0.00540)
Parents qualifications unknown	**0.0221****	**0.0221****	**0.0181***	**0.0175***
	(0.00792)	(0.00796)	(0.00754)	(0.00749)
SIMD - 2nd quintile		0.00279	0.00230	0.00299
		(0.00661)	(0.00656)	(0.00651)
SIMD - 3rd quintile		0.00695	0.00514	0.00618
		(0.00723)	(0.00709)	(0.00709)
SIMD - 4th quintile		-0.00723	-0.00971	-0.00877
		(0.00731)	(0.00705)	(0.00704)
SIMD - 20% Most deprived		0.00890	0.00496	0.00581

		(0.00866)	(0.00828)	(0.00826)
Tariff - 2nd highest score band			0.00879	0.00820
			(0.0112)	(0.0113)
Tariff - 3rd highest score band			0.00781	0.00708
			(0.0104)	(0.0106)
Tariff - 4th highest score band			0.0190	0.0181
			(0.0104)	(0.0106)
Tariff - 20% lowest scores			**0.0363****	**0.0353****
			(0.0104)	(0.0106)
Tariff - Missing			**0.0362*****	**0.0363*****
			(0.0109)	(0.0111)
STEM				-0.00437
				(0.00737)
Social Studies				0.00183
				(0.00868)
Business and Mass Communication				0.00845
				(0.00794)
Humanities and Arts				-0.00517
				(0.00959)
N	8,336	8,319	8,319	8,319

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Medicine.

Table A.4.9: Subjects allied to medicine - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	-0.031	-0.017	0.068	0.033
	(0.29)	(0.29)	(0.29)	(0.29)
Asian	-0.120	-0.069	0.050	0.065
	(0.43)	(0.43)	(0.44)	(0.44)
Black/Mixed/Other	-0.506	-0.576	-0.490	-0.515
	(0.73)	(0.73)	(0.74)	(0.74)
Disabled student	0.124	0.128	0.092	0.106
	(0.34)	(0.34)	(0.35)	(0.35)
Intermediate Social Class	-0.017	-0.030	-0.054	-0.043
	(0.28)	(0.28)	(0.28)	(0.28)
Low Social Class	0.487	0.452	0.423	0.425
	(0.28)	(0.28)	(0.28)	(0.28)
Unknown Social Class	0.470	0.460	0.436	0.440
	(0.27)	(0.27)	(0.27)	(0.27)
Parents - No HE qualifications	-0.310	-0.347	-0.393	-0.399
	(0.24)	(0.24)	(0.24)	(0.24)
Parents qualifications unknown	0.204	0.182	0.110	0.126
	(0.26)	(0.26)	(0.26)	(0.27)
SIMD - 2nd quintile		0.475	0.404	0.416
		(0.28)	(0.28)	(0.28)
SIMD - 3rd quintile		0.417	0.321	0.329
		(0.30)	(0.30)	(0.30)
SIMD - 4th quintile		0.011	-0.101	-0.097
		(0.34)	(0.35)	(0.35)
SIMD - 20% Most deprived		0.552	0.448	0.464

		(0.33)	(0.34)	(0.34)
Tariff - 2nd highest score band			0.679	0.737
			(0.54)	(0.54)
Tariff - 3rd highest score band			0.554	0.615
			(0.55)	(0.55)
Tariff - 4th highest score band			0.849	0.957
			(0.53)	(0.54)
Tariff - 20% lowest scores			**1.268****	**1.419****
			(0.48)	(0.50)
Tariff - Missing			0.889	1.018*
			(0.50)	(0.51)
Old Universities				-0.439
				(0.36)
New Universities				-0.454
				(0.34)
Constant	-3.081***	-3.349***	-4.130***	-3.850***
	(0.17)	(0.25)	(0.49)	(0.53)
N	2,357	2,357	2,357	2,357

Standard errors in parentheses; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.10: Subjects allied to medicine - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	-0.00134	-0.000755	0.00287	0.00135
	(0.0124)	(0.0123)	(0.0125)	(0.0122)
Asian	-0.00516	-0.00297	0.00212	0.00277
	(0.0177)	(0.0181)	(0.0191)	(0.0192)
Black/Mixed/Other	-0.0183	-0.0198	-0.0164	-0.0169
	(0.0210)	(0.0193)	(0.0197)	(0.0191)
Disabled student	0.00578	0.00585	0.00392	0.00451
	(0.0167)	(0.0165)	(0.0153)	(0.0154)
Intermediate Social Class	-0.000667	-0.00112	-0.00192	-0.00152
	(0.0106)	(0.0104)	(0.00991)	(0.00988)
Low Social Class	0.0237	0.0214	0.0190	0.0189
	(0.0148)	(0.0144)	(0.0137)	(0.0136)
Unknown Social Class	0.0227	0.0218	0.0197	0.0197
	(0.0140)	(0.0138)	(0.0133)	(0.0132)
Parents - No HE qualifications	-0.0128	-0.0140	-0.0152	-0.0152
	(0.00965)	(0.00946)	(0.00904)	(0.00895)
Parents qualifications unknown	0.0106	0.00930	0.00529	0.00608
	(0.0142)	(0.0139)	(0.0130)	(0.0131)
SIMD - 2nd quintile		0.0203*	0.0168	0.0172
		(0.0120)	(0.0118)	(0.0117)
SIMD - 3rd quintile		0.0173	0.0128	0.0130
		(0.0125)	(0.0121)	(0.0120)
SIMD - 4th quintile		0.000360	-0.00333	-0.00314
		(0.0118)	(0.0113)	(0.0111)
SIMD - 20% Most deprived		0.0245	0.0191	0.0196
		(0.0160)	(0.0153)	(0.0153)
Tariff - 2nd highest score band			0.0183	0.0185
			(0.0138)	(0.0129)
Tariff - 3rd highest score band			0.0140	0.0144
			(0.0132)	(0.0124)
Tariff - 4th highest score band			0.0250	0.0270
			(0.0146)	(0.0143)
Tariff - 20% lowest scores			**0.0467****	**0.0513****
			(0.0133)	(0.0135)
Tariff - Missing			**0.0267***	**0.0296***

			(0.0126)	(0.0124)
Old Universities				-0.0213
				(0.0193)
New Universities				-0.0218
				(0.0185)
N	2,357	2,357	2,357	2,357

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.11: STEM subjects - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	**0.409*** **	**0.423*** **	**0.366** **	**0.358** **
	(0.11)	(0.11)	(0.11)	(0.11)
Asian	**-0.905** *	**-0.926** *	**-0.969** **	**-0.985** **
	(0.36)	(0.36)	(0.36)	(0.37)
Black/Mixed/Other	-0.026	-0.024	-0.084	-0.137
	(0.30)	(0.30)	(0.31)	(0.31)
Disabled student	0.211	0.222	0.131	0.116
	(0.18)	(0.18)	(0.18)	(0.18)
Intermediate Social Class	0.184	0.155	0.126	0.132
	(0.14)	(0.14)	(0.14)	(0.14)
Low Social Class	0.225	0.102	0.019	0.047
	(0.17)	(0.17)	(0.17)	(0.17)
Unknown Social Class	**0.351** *	**0.315** *	0.261	0.264
	(0.14)	(0.14)	(0.14)	(0.14)
Parents - No HE qualifications	**0.304** *	**0.245** *	0.174	0.209
	(0.12)	(0.12)	(0.13)	(0.13)
Parents qualifications unknown	**0.420** **	**0.365** *	0.244	0.240
	(0.14)	(0.15)	(0.15)	(0.15)
SIMD - 2nd quintile		0.006	-0.040	-0.026
		(0.15)	(0.15)	(0.15)
SIMD - 3rd quintile		**0.308** *	0.240	0.254
		(0.15)	(0.15)	(0.15)
SIMD - 4th quintile		**0.538*** **	**0.441** **	**0.459** **
		(0.16)	(0.16)	(0.16)
SIMD - 20% Most deprived		**0.359** *	0.238	0.265
		(0.18)	(0.18)	(0.18)
Tariff - 2nd highest score band			**0.782** **	**0.809** **
			(0.25)	(0.25)
Tariff - 3rd highest score band			**0.871*** **	**0.959*** **
			(0.25)	(0.25)
Tariff - 4th highest score band			**1.291*** **	**1.458*** **
			(0.24)	(0.24)
Tariff - 20% lowest scores			**1.409*** **	**1.756*** **

			(0.24)	(0.26)
Tariff - Missing			**1.566*** **	**1.765*** **
			(0.24)	(0.25)
Old Universities				0.048
				(0.14)
New Universities				**-0.460** **
				(0.15)
Constant	-3.478***	-3.612***	-4.493***	-4.500***
	(0.12)	(0.14)	(0.24)	(0.25)
N	7,921	7,888	7,888	7,888

Standard errors in parentheses; Reference categories: Young women, White, Non disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.12: STEM Subjects - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	**0.0181****	**0.0185****	**0.0146****	**0.0141****
	(0.00471)	(0.00465)	(0.00434)	(0.00429)
Asian	**-0.0291****	**-0.0291****	**-0.0273****	**-0.0272****
	(0.00774)	(0.00750)	(0.00663)	(0.00645)
Black/Mixed/Other	-0.00123	-0.00111	-0.00345	-0.00544
	(0.0140)	(0.0139)	(0.0122)	(0.0115)
Disabled student	0.0105	0.0109	0.00569	0.00491
	(0.00960)	(0.00958)	(0.00821)	(0.00800)
Intermediate Social Class	0.00817	0.00690	0.00516	0.00530
	(0.00622)	(0.00621)	(0.00569)	(0.00561)
Low Social Class	0.0102	0.00442	0.000720	0.00182
	(0.00801)	(0.00760)	(0.00670)	(0.00672)
Unknown Social Class	**0.0169***	**0.0150***	0.0114	0.0113
	(0.00733)	(0.00729)	(0.00662)	(0.00653)
Parents - No HE qualifications	**0.0140***	0.0111	0.00721	0.00858
	(0.00595)	(0.00587)	(0.00531)	(0.00533)
Parents qualifications unknown	**0.0205****	**0.0175***	0.0104	0.00999
	(0.00778)	(0.00763)	(0.00666)	(0.00660)
SIMD - 2nd quintile		0.000233	-0.00145	-0.000940
		(0.00580)	(0.00542)	(0.00533)
SIMD - 3rd quintile		**0.0138***	0.00997	0.0104
		(0.00693)	(0.00639)	(0.00629)
SIMD - 4th quintile		**0.0270****	**0.0201***	**0.0206****
		(0.00895)	(0.00807)	(0.00798)
SIMD - 20% Most deprived		0.0166	0.00986	0.0109
		(0.00909)	(0.00802)	(0.00799)
Tariff - 2nd highest score band			**0.0198****	**0.0182****
			(0.00594)	(0.00531)
Tariff - 3rd highest score band			**0.0231****	**0.0234****

			(0.00612)	(0.00571)
Tariff - 4th highest score band			**0.0429****	**0.0467****
			(0.00741)	(0.00742)
Tariff - 20% lowest scores			**0.0500****	**0.0664****
			(0.00836)	(0.0104)
Tariff - Missing			**0.0606****	**0.0671****
			(0.00911)	(0.00943)
Old Universities				0.00230
				(0.00649)
New Universities				**-0.0174****
				(0.00570)
N	7,921	7,888	7,888	7,888

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.13: Social Studies - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	**0.380***	**0.390***	**0.395***	**0.401***
	(0.16)	(0.16)	(0.16)	(0.17)
Asian	-0.452	-0.458	-0.424	-0.410
	(0.59)	(0.60)	(0.60)	(0.60)
Black/Mixed/Other	0.222	-0.018	-0.035	-0.011
	(0.52)	(0.60)	(0.60)	(0.60)
Disabled student	0.277	0.285	0.232	0.236
	(0.28)	(0.28)	(0.28)	(0.28)
Intermediate Social Class	-0.030	-0.032	-0.072	-0.062
	(0.21)	(0.21)	(0.21)	(0.21)
Low Social Class	0.057	0.070	0.035	0.030
	(0.26)	(0.26)	(0.26)	(0.26)
Unknown Social Class	-0.048	-0.070	-0.102	-0.110
	(0.24)	(0.25)	(0.25)	(0.25)
Parents - No HE qualifications	0.232	0.249	0.191	0.177
	(0.19)	(0.19)	(0.19)	(0.19)
Parents qualifications unknown	0.365	0.376	0.288	0.192
	(0.26)	(0.26)	(0.26)	(0.26)
SIMD - 2nd quintile		0.137	0.104	0.096
		(0.21)	(0.21)	(0.21)
SIMD - 3rd quintile		0.060	0.003	-0.018
		(0.24)	(0.24)	(0.24)
SIMD - 4th quintile		0.037	-0.040	-0.066
		(0.27)	(0.27)	(0.27)
SIMD - 20% Most deprived		-0.072	-0.175	-0.199
		(0.31)	(0.31)	(0.31)
Tariff - 2nd highest score band			0.116	0.053
			(0.31)	(0.31)
Tariff - 3rd highest score band			0.402	0.308
			(0.30)	(0.31)
Tariff - 4th highest score band			**0.902****	**0.773****
			(0.29)	(0.30)
Tariff - 20% lowest scores			**0.770***	0.641

			(0.30)	(0.33)
Tariff - Missing			0.464	0.351
			(0.32)	(0.33)
Old Universities				**0.490***
				(0.21)
New Universities				0.310
				(0.22)
Constant	-3.326***	-3.380***	-3.743***	-3.872***
	(0.15)	(0.18)	(0.27)	(0.28)
N	3,613	3,604	3,604	3,604

Standard errors in parentheses; Reference categories: Young women, White, Non disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.14: Social studies - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	**0.0170***	**0.0174***	**0.0169***	**0.0169***
	(0.00769)	(0.00771)	(0.00744)	(0.00735)
Asian	-0.0156	-0.0158	-0.0142	-0.0136
	(0.0167)	(0.0166)	(0.0164)	(0.0164)
Black/Mixed/Other	0.0104	-0.000741	-0.00140	-0.000436
	(0.0269)	(0.0249)	(0.0235)	(0.0237)
Disabled student	0.0130	0.0133	0.0102	0.0102
	(0.0146)	(0.0146)	(0.0135)	(0.0134)
Intermediate Social Class	-0.00124	-0.00133	-0.00285	-0.00245
	(0.00885)	(0.00883)	(0.00842)	(0.00835)
Low Social Class	0.00247	0.00303	0.00148	0.00123
	(0.0112)	(0.0115)	(0.0109)	(0.0107)
Unknown Social Class	-0.00200	-0.00287	-0.00398	-0.00420
	(0.00996)	(0.00997)	(0.00962)	(0.00942)
Parents - No HE qualifications	0.00977	0.0104	0.00765	0.00705
	(0.00812)	(0.00822)	(0.00783)	(0.00776)
Parents qualifications unknown	0.0164	0.0168	0.0121	0.00770
	(0.0127)	(0.0128)	(0.0119)	(0.0111)
SIMD - 2nd quintile		0.00585	0.00437	0.00397
		(0.00909)	(0.00891)	(0.00884)
SIMD - 3rd quintile		0.00248	0.000123	-0.000715
		(0.00996)	(0.00961)	(0.00946)
SIMD - 4th quintile		0.00152	-0.00156	-0.00255
		(0.0110)	(0.0105)	(0.0103)
SIMD - 20% Most deprived		-0.00279	-0.00644	-0.00721
		(0.0119)	(0.0111)	(0.0109)
Tariff - 2nd highest score band			0.00335	0.00160
			(0.00903)	(0.00938)
Tariff - 3rd highest score band			0.0134	0.0104

			(0.0101)	(0.0103)
Tariff - 4th highest score band			**0.0386****	**0.0329****
			(0.0123)	(0.0126)
Tariff - 20% lowest scores			**0.0309***	0.0256
			(0.0125)	(0.0135)
Tariff - Missing			0.0160	0.0121
			(0.0112)	(0.0115)
Old Universities				**0.0199***
				(0.00910)
New Universities				0.0115
				(0.00842)
N	3,613	3,604	3,604	3,604

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young women, White, No disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.15: Business and Mass Communication - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	**0.492****	**0.487****	**0.451****	**0.475****
	(0.17)	(0.17)	(0.17)	(0.17)
Asian	**-2.221***	**-2.241***	**-2.236***	**-2.236***
	(1.01)	(1.01)	(1.01)	(1.01)
Black/Mixed/Other	**1.404*****	**1.375*****	**1.347*****	**1.373*****
	(0.30)	(0.30)	(0.31)	(0.31)
Disabled student	-0.365	-0.353	-0.435	-0.426
	(0.37)	(0.37)	(0.37)	(0.38)
Intermediate Social Class	-0.061	-0.079	-0.093	-0.104
	(0.22)	(0.23)	(0.23)	(0.23)
Low Social Class	0.034	-0.021	-0.030	-0.014
	(0.27)	(0.28)	(0.28)	(0.28)
Unknown Social Class	-0.281	-0.297	-0.297	-0.298
	(0.27)	(0.27)	(0.27)	(0.27)
Parents - No HE qualifications	0.034	0.007	-0.069	-0.078
	(0.20)	(0.20)	(0.21)	(0.21)
Parents qualifications unknown	0.228	0.226	0.119	0.164
	(0.23)	(0.23)	(0.24)	(0.24)
SIMD - 2nd quintile		0.054	0.051	0.046
		(0.22)	(0.22)	(0.22)
SIMD - 3rd quintile		-0.065	-0.090	-0.103
		(0.27)	(0.27)	(0.27)
SIMD - 4th quintile		0.184	0.127	0.154
		(0.28)	(0.28)	(0.28)
SIMD - 20% Most deprived		0.462	0.365	0.355
		(0.28)	(0.28)	(0.29)
Tariff - 2nd highest score band			0.670	0.622
			(0.48)	(0.49)
Tariff - 3rd highest score band			0.669	0.576
			(0.47)	(0.49)
Tariff - 4th highest score band			**1.131***	**0.991***
			(0.45)	(0.48)
Tariff - 20% lowest scores			**1.432****	**1.247****
			(0.44)	(0.48)

Tariff - Missing			0.870	0.728
			(0.48)	(0.50)
Old Universities				-0.640
				(0.39)
New Universities				-0.074
				(0.34)
Constant	-3.109***	-3.165***	-4.035***	-3.774***
	(0.16)	(0.19)	(0.44)	(0.48)
N	2,948	2,941	2,941	2,941

Standard errors in parentheses; Reference categories: Young women, White, Non disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.16: Business and Mass Communication - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	**0.0230****	**0.0225****	**0.0194***	**0.0201****
	(0.00831)	(0.00827)	(0.00775)	(0.00770)
Asian	**-0.0439****	**-0.0436****	**-0.0408****	**-0.0399****
	(0.00701)	(0.00687)	(0.00657)	(0.00649)
Black/Mixed/Other	**0.126****	**0.120****	**0.110****	**0.112****
	(0.0421)	(0.0414)	(0.0394)	(0.0395)
Disabled student	-0.0139	-0.0134	-0.0150	-0.0144
	(0.0123)	(0.0122)	(0.0108)	(0.0107)
Intermediate Social Class	-0.00272	-0.00347	-0.00385	-0.00418
	(0.00984)	(0.00984)	(0.00918)	(0.00896)
Low Social Class	0.00156	-0.000942	-0.00129	-0.000578
	(0.0127)	(0.0124)	(0.0117)	(0.0116)
Unknown Social Class	-0.0114	-0.0119	-0.0112	-0.0110
	(0.0101)	(0.0100)	(0.00955)	(0.00938)
Parents - No HE qualifications	0.00145	0.000311	-0.00273	-0.00299
	(0.00866)	(0.00860)	(0.00807)	(0.00784)
Parents qualifications unknown	0.0107	0.0105	0.00510	0.00705
	(0.0115)	(0.0115)	(0.0105)	(0.0106)
SIMD - 2nd quintile		0.00226	0.00205	0.00178
		(0.00925)	(0.00886)	(0.00868)
SIMD - 3rd quintile		-0.00256	-0.00337	-0.00374
		(0.0104)	(0.00981)	(0.00956)
SIMD - 4th quintile		0.00816	0.00522	0.00632
		(0.0127)	(0.0118)	(0.0118)
SIMD - 20% Most deprived		0.0233	0.0168	0.0160
		(0.0160)	(0.0144)	(0.0141)
Tariff - 2nd highest score band			0.0166	0.0163
			(0.0109)	(0.0117)
Tariff - 3rd highest score band			0.0165	0.0148
			(0.0104)	(0.0112)

Tariff - 4th highest score band			**0.0357****	**0.0316***
			(0.0116)	(0.0124)
Tariff - 20% lowest scores			**0.0532****	**0.0455****
			(0.0126)	(0.0137)
Tariff - Missing			0.0239	0.0202
			(0.0122)	(0.0127)
Old Universities				-0.0228
				(0.0159)
New Universities				-0.00336
				(0.0160)
N	2,948	2,941	2,941	2,941

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young Women, White, No Disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.17: Humanities and Arts - Logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01, ***p<0.001)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	-0.042	-0.030	-0.085	-0.105
	(0.21)	(0.21)	(0.21)	(0.22)
Asian	.	.	.	.
	.	.	.	.
Black/Mixed/Other	0.392	0.447	0.513	0.523
	(0.53)	(0.53)	(0.54)	(0.54)
Disabled student	0.470	0.402	0.299	0.284
	(0.27)	(0.28)	(0.29)	(0.29)
Intermediate Social Class	-0.488	-0.475	-0.507	-0.528
	(0.30)	(0.30)	(0.30)	(0.30)
Low Social Class	-0.365	-0.377	-0.447	-0.427
	(0.35)	(0.35)	(0.35)	(0.35)
Unknown Social Class	0.216	0.245	0.199	0.203
	(0.26)	(0.26)	(0.26)	(0.27)
Parents - No HE qualifications	**0.630****	**0.597***	**0.568***	**0.569***
	(0.23)	(0.24)	(0.24)	(0.24)
Parents qualifications unknown	0.181	0.156	0.064	0.261
	(0.32)	(0.32)	(0.32)	(0.33)
SIMD - 2nd quintile		0.151	0.119	0.134
		(0.26)	(0.27)	(0.27)
SIMD - 3rd quintile		0.324	0.296	0.332
		(0.28)	(0.28)	(0.28)
SIMD - 4th quintile		-0.280	-0.350	-0.306
		(0.38)	(0.38)	(0.38)
SIMD - 20% Most deprived		0.442	0.347	0.359
		(0.37)	(0.37)	(0.38)
Tariff - 2nd highest score band			0.702	**0.789***
			(0.36)	(0.36)
Tariff - 3rd highest score band			0.403	0.593
			(0.39)	(0.40)
Tariff - 4th highest score band			**0.805***	**1.070****
			(0.38)	(0.40)
Tariff - 20% lowest scores			**1.008***	**1.327****
			(0.40)	(0.42)
Tariff - Missing			**0.839***	**1.079****

			(0.38)	(0.40)
Old Universities				**-0.752***
				(0.30)
New Universities				**-0.499***
				(0.25)
Constant	-3.230***	-3.335***	-3.854***	-3.742***
	(0.17)	(0.22)	(0.33)	(0.33)
N	2,384	2,374	2,374	2,374

Standard errors in parentheses; Reference categories: Young women, White, Non disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.

Table A.4.18: Humanities and Arts - Marginal effects Models following logistic regression models estimating the probability of dropping out during the 1st year (*p<0.05, **p<0.01)

	SES	SES+SIMD	SES+SIMD+ TARIFF	SES+SIMD+ TARIFF + HEI type
Young Men	-0.00170	-0.00120	-0.00326	-0.00386
	(0.00858)	(0.00849)	(0.00807)	(0.00783)
Asian	-	-	-	-
Black/Mixed/Other	0.0191	0.0220	0.0249	0.0248
	(0.0304)	(0.0316)	(0.0321)	(0.0316)
Disabled student	0.0229	0.0188	0.0129	0.0118
	(0.0156)	(0.0151)	(0.0138)	(0.0133)
Intermediate Social Class	-0.0177	-0.0169	-0.0174	-0.0174
	(0.00979)	(0.00973)	(0.00933)	(0.00895)
Low Social Class	-0.0140	-0.0140	-0.0157	-0.0147
	(0.0119)	(0.0117)	(0.0109)	(0.0107)
Unknown Social Class	0.0108	0.0121	0.00940	0.00929
	(0.0136)	(0.0136)	(0.0130)	(0.0127)
Parents - No HE qualifications	**0.0297***	**0.0275***	**0.0252***	**0.0239***
	(0.0120)	(0.0121)	(0.0116)	(0.0111)
Parents qualifications unknown	0.00688	0.00582	0.00224	0.00942
	(0.0128)	(0.0124)	(0.0114)	(0.0130)
SIMD - 2nd quintile		0.00601	0.00458	0.00494
		(0.0106)	(0.0103)	(0.00988)
SIMD - 3rd quintile		0.0139	0.0124	0.0135
		(0.0123)	(0.0119)	(0.0117)
SIMD - 4th quintile		-0.00910	-0.0109	-0.00922
		(0.0115)	(0.0109)	(0.0107)
SIMD - 20% Most deprived		0.0201	0.0148	0.0147
		(0.0191)	(0.0176)	(0.0170)
Tariff - 2nd highest score band			**0.0226***	**0.0221***
			(0.0114)	(0.0100)
Tariff - 3rd highest score band			0.0111	0.0150
			(0.0108)	(0.0102)
Tariff - 4th highest score band			**0.0273***	**0.0348***

			(0.0135)	(0.0139)
Tariff - 20% lowest scores			**0.0380***	**0.0495****
			(0.0167)	(0.0187)
Tariff - Missing			**0.0289***	**0.0352***
			(0.0135)	(0.0138)
Old Universities				**-0.0277****
				(0.0102)
New Universities				**-0.0205***
				(0.00998)
N	2,384	2,374	2,374	2,374

Standard errors in parentheses; All predictors at their mean value; Reference categories: Young Women, White, No Disability, High Social Class, Parent has HE qualifications, SIMD - 20% least deprived, Tariff - 20% highest scores, Ancient Universities.