



On course for success? Student retention at university

A report by the Social Market Foundation
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In recent years, as higher education has expanded, the burden of paying for a degree has shifted towards the individual. This naturally presents difficulties in terms of maintaining the 'University for the Public Good', as well as ensuring there is greater equity in terms of going to, succeeding at and benefiting from the university experience. We believe the UPP Foundation can make a small but significant contribution in helping universities and the wider higher education sector overcome these challenges.

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Foreword

*Dr. Paul Marshall,
Chair of the Trustee Board
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Our universities are powerhouses of intellectual and social capital. They rank among our most valuable national assets, and are an essential driver of growth for the UK economy through the provision of education. They provide people with the knowledge and skills enabling them to make a positive contribution to society and the economy as a whole.

The available data sets show us that universities are currently doing a very good job at providing a higher education closely tailored to the needs of their students. However, like other industries, UK HE cannot be complacent and needs to keep improving to remain a world leading sector.

This report, commissioned by the UPP Foundation and undertaken by the Social Market Foundation (SMF), analyses the factors that affect student retention rates from universities across England. It argues that there has been much focus and activity directed towards increasing the proportion of students from ethnic minority and disadvantaged backgrounds who enter university but that students

from these groups remain more likely to not complete their studies.

The SMF's report identifies background student characteristics – such as socio-economic status and ethnicity – as playing an important role in determining retention rates. We also know from research by the IFS that individuals from lower socio-economic backgrounds are less likely than those from higher socio-economic backgrounds to graduate with a first or 2:1. Additionally, ethnicity plays a role – with the research showing that institutions with higher than average numbers of black students are likely to have higher non-completion rates.

The UPP Foundation sees the task of tackling non-continuation as an important element to improving social mobility throughout HE. While it is important to think about retention at an institution-level, each non-completion is a lost opportunity for the individual from a welfare and economic perspective and for the economy at large. It's wasted talent that we believe should be nurtured and inspired.

A large red diagonal graphic that starts from the top left corner and extends towards the middle of the page, creating a triangular shape on the left side of the page.

There are positive signs that the Government and universities are placing greater weight on retention now than they have done in the past. But, there's more to do. The UPP Foundation takes seriously the lessons around improving the student experience. As well as being relevant to London institutions, responding to the different backgrounds of students and helping them to manage financial pressures will have resonance for many other institutions today, too.

Everyone with the potential and ambition to succeed at university should have the ability to do so, regardless of background or family income. Yet, as the SMF's report has found, there are still too many challenges to overcome once there for students who face problems, such as not feeling as if they truly belong.

The UPP Foundation is extremely proud to have been involved in and supported the SMF on this project, and is confident their report will help to inform best practice in the sector. We know that successfully completing their studies, having an excellent experience and gaining employability skills are key drivers for students. In order for this to continue, it is critical that the sector engages actively with the challenges ahead.

Executive summary

This report analyses the factors that affect student drop-out rates from universities across England. It argues that there has been much focus and activity directed towards increasing the proportion of students from ethnic minority and disadvantaged backgrounds that enter university, but that students from these groups remain more likely to drop out. This must change if social mobility ambitions are to be achieved: ultimately, retention is as important as access.

Tackling non-continuation at university is vital. Each drop-out represents a loss of potential, a poor and probably confidence-sapping experience for a student and an investment in tuition costs which is likely to have a low return.

However, while the UK's track record of expanding the number and diversity of people attending university has been impressive, drop-out rates are creeping up – rising from 5.7% to 6.3% between 2012/13 and 2014/15 for young first-time students – and the retention gap between the most advantaged and disadvantaged students has widened over this period. There is also significant variation in performance across regions.



Findings

Our research into the retention challenge draws on analysis from the Higher Education Statistics Agency data and other sources and reveals that:

- London performs worst across all English regions with nearly one in ten students dropping out during their first year of study.
- London over-performs in getting its young people into university, but the capital's universities struggle to keep students. London's young drop-out score is high, second only to the North West.
- Many of the disadvantaged groups targeted through Widening Access are also the groups who are most likely to drop out. Institutions are more likely to have higher drop-out rates where:
 - They have a higher intake of Black students.
 - They have a higher proportion of students whose parents work(ed) in lower-level occupations.
 - They have a higher proportion of students who come from low-participation localities.
- Universities with lower student satisfaction scores in the National Student Survey have higher drop-out rates on average.
- Our research indicates that whether a university is a campus or non-campus institution may influence drop-out rates. Our initial research in Chapter 3 shows an association between lower drop-out rates and campus universities. However, this relationship does not emerge as significant in our regression analysis. This issue is worthy of deeper analysis in future research.

Policy recommendations

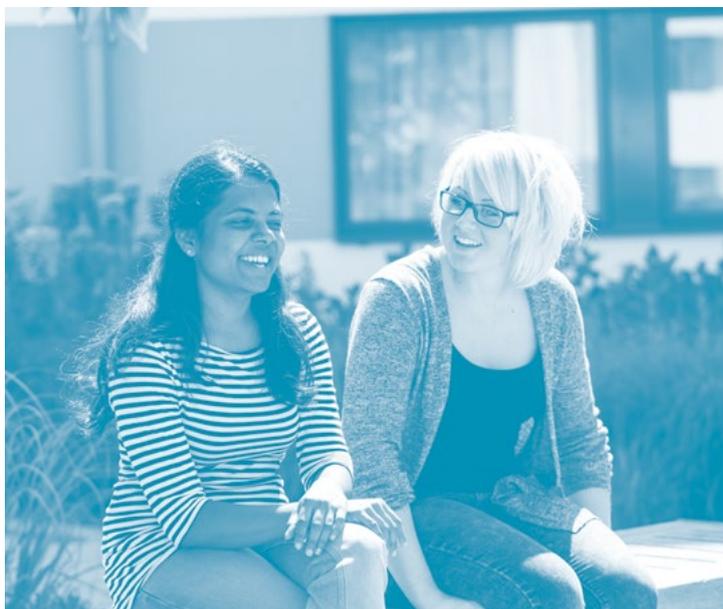
Our central argument is that it is futile to direct significant efforts to widen participation if the same students subsequently drop out. The Government, the Office for Students (OfS) and universities themselves should now pivot and focus as much on retention as on widening the pool of applications and enrolments.

In particular we propose that:

- The Government should introduce a new target to remove the completion gap for Black students and those from disadvantaged backgrounds by 2025; this means reducing the Black student drop-out rate from 10.3% to 6.9%, which is the current English average for young and mature students in all years of study.
- The Mayor of London should seek to help to improve university retention rates in the capital through his new skills taskforce. Other mayors should follow suit. This could include assessing what more could be done through housing, transport and leisure amenities to help students participate fully in university life.
- The OfS should consider introducing rewards for institutions that facilitate successful transfer of students from their institution to another institution.
- An 'Innovation Challenge Fund' should be set up to finance the most exciting ideas for how to address high drop-out rates among some ethnic minority groups.

- Universities, schools and other institutions should make greater efforts through outreach to prepare and support students in advance of university, whether through open days, taster sessions or other interventions.

Our research and discussion with the sector revealed many innovative practices that could help boost retention rates, including: universities employing students – as a means of engaging students, helping them cope financially and regulating their hours; use of behavioural techniques to nudge students to participate in academic and social life; use of data analytics to identify and support struggling students; and helping students develop networks.



Chapter 1: Introduction

“Variability [in retention rates] is not simply a statistic, nor even simply a squandering of taxpayers’ money. It is worse: it represents thousands of life opportunities wasted, of young dreams unfulfilled, all because of teaching that was not as good as it should have been, or because students were recruited who were not capable of benefitting from higher education.”¹

– BIS, *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* (2016)

Participation in higher education

Attending and completing a university course is a fundamental enabler of social mobility in the UK. It opens the door to a wide range of professional careers, including medicine, law and education, and projections suggest that there will be continued growth in demand for individuals with graduate-level skills. A university education is now much more widely available than it was in the last century with



participation rates rising. At the turn of the century 39% of young adults went on to study at higher education (HE).² By 2015, this had risen to 48%.³

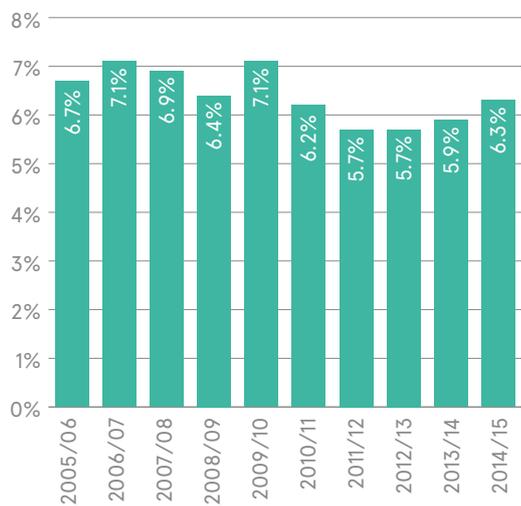
As well as seeing a rise in the overall rate, governments have focused increasing attention on widening access – ensuring that those from more disadvantaged backgrounds attend university. While there remains a considerable way to go,⁴ data shows that progress has been made here. For instance, between 2009/10 and 2013/14 the gap between the participation rate at age 19 between pupils on Free School Meals and those not on Free School Meals narrowed.⁵ Over the long-term there has been a significant increase in the proportion of students who come from state schools (rising from 85% at the turn of the century to 90% in 2015/16).⁶ The proportion of students from areas that typically send a lower proportion of young people to university has also increased this decade, rising from 9.6% in 2009/10 to 11.3% in 2015/16.⁷

However, getting students from a diverse mix of backgrounds into university is only a fraction of the challenge.

Student retention rates in the UK

Generally, student retention rates in England are good by international standards.⁸ However, addressing non-continuation remains important. First, as Figure 1 shows, drop-out rates among young undergraduate students (before the start of year two) show an increase this decade from 5.7% in 2011/12 to 6.3% in 2014/15 – a significant proportional rise.

Figure 1: Percentage of UK domiciled young full-time first-degree entrants not continuing in higher education in English universities after their first year

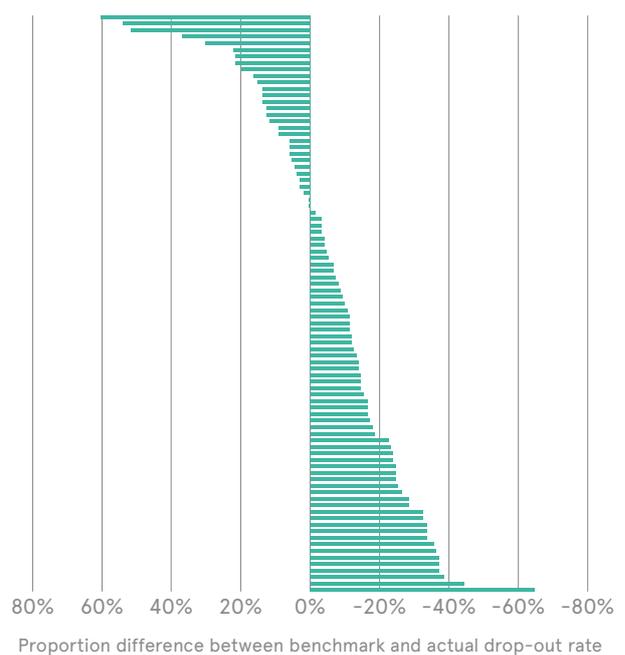


Source: HESA

Second, while Figure 1 shows how retention rates have changed over time, it is also notable how rates vary even among institutions that are perceived as successful institutions generally. Under the Teaching Excellence Framework (TEF), universities are rated across three metrics, including retention, how students rate their university and employment outcomes. Data published recently as part of the TEF show that a number of universities that received Gold or Silver awards have drop-out rates much higher than their benchmark.

Figure 2 shows how institutions' headline drop-out rates compare to the benchmark score that they would be expected to achieve given their student intake. Whilst the majority of universities appear to be performing better than their benchmark, many institutions have drop-out rates much higher than their benchmark.

Figure 2: Proportional difference between institutional benchmark and observed drop-out rate (universities that scored Gold or Silver in TEF)



Source: HEFCE TEF data

This suggests that efforts to improve retention rates will continue to be needed across a wide spectrum of English universities.

Third, while it is important to think about retention at an institution-level, each drop-out is a lost opportunity for the individual from a welfare and economic perspective and for the economy at large. Individuals who leave university before completing their course have worse labour market outcomes compared to those who graduate. Research from the first part of this century revealed that leavers have around twice the probability of being unemployed in their early career than graduates. Three and a half years after leaving they display a much higher probability (25%) of being in occupations that do not require high-level skills compared to graduates (10%).⁹ This is perhaps unsurprising as those who complete are by definition successful at their studies. Other work has also indicated that those who drop out of university may have been better-off not attending at all. Research tracking Swedish students shows that attending and then dropping out of university has a scarring effect, leading to marginalisation in the labour market (although the effects are relatively small).¹⁰ Students who drop out may (depending on when they leave) also face significant costs associated with their aborted studies in the form of tuition fees and maintenance loans.

A final reason for worrying about retention is that it is futile to direct significant efforts to widen participation if the same students subsequently

drop out. Past research, including from the SMF, has shown that drop-out rates among students from low-participation areas are higher than those from localities that typically send a lot of youngsters to university.¹¹ We need a deeper understanding of how and why different groups are at risk of dropping out.

Growing focus on retention

While significant attention has been dedicated to widening the pool of applicants to and enrolments in university, there has historically been less focus on whether those who attend stay on. This is starting to change:

- The TEF, which determines the level of fees that institutions can charge, concentrates on retention as one of the principal quantitative measures it tracks alongside results from the National Student Survey and data on employment outcomes.¹²
- The 2016 White Paper shone a light on the unexplained variation in retention rates between institutions, highlighted differences by ethnicity and called for a 'whole lifecycle approach to all of these challenges, looking across access, retention, attainment and progression from HE.'¹³
- The Higher Education and Research Act puts more equal emphasis on access to and participation in HE, including establishing transparency duties to publish information on applications, offers and completions for students from different backgrounds.



This report seeks to put further impetus behind this agenda. It comes in the context of student number controls being lifted in 2015-16, which could theoretically lead to better matching of students and universities as well as more previously-marginalised young people entering university.

Looking through a regional lens

In focusing on retention, this research also takes as its starting point the early finding that there are significant regional variations in student retention and that London is the worst performing region in the country. While the overall proportion of first-degree entrants no longer in HE after one year is near 5% in the best performing regions, in London it is stubbornly stuck at close to double that level. Therefore, while London is frequently held up as the success story – for instance the improvement in London schools since the mid-2000s – its universities record higher drop-out rates. Our familiar narrative that London is a success story, instructive for the rest, is here inverted. Over one fifth of all the students who drop out of English universities after one year do so from institutions based in the capital.

This research

Research methods

Our analysis draws on a wide range of sources, including:

- A survey of the UK and US literature and evidence, with a view to establishing the root causes that may relate to observable characteristics in universities and their population.
- Analysis of institutional-level data, predominantly from the Higher Education Statistics Agency, alongside other measures.
- A roundtable discussion with senior university administrators and experts in London.
- Interviews and meetings with senior university officials across the country.

Focus of this research

Looking at English universities, this research asks:

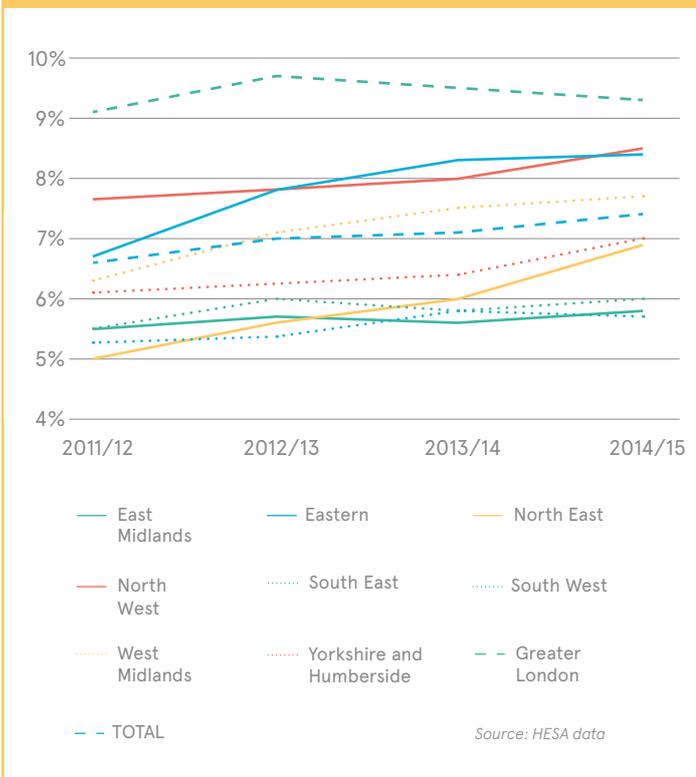
- What are the factors explaining why students drop out of university and how far do these affect drop-out rates across English universities?
- What are the variations in retention rates across different regions and which factors explain the regional differentiation in drop-out rates?
- Which policies will help target the root causes of student retention challenges?

Our focus is predominantly on younger first-degree students because they reflect the vast majority of the first-degree full-time intake.



Chapter 2: Disparities across England

Figure 3: Proportion of UK-domiciled students that drop out of higher education by end of first year



London versus the rest

For many reasons we might expect London to exhibit positive university outcomes compared to other regions.¹⁴ The capital city might be able to attract high-qualified staff, as in schools. London provides a broad range of work opportunities for students, not only to boost their prospects for employability after graduation but to support themselves financially while studying. The institutions within London are diverse and so is their intake. The range of institutions and their relative proximity to one another should also make it easier for students who are poorly matched to their first choice of course or institution to transfer. We can observe a higher rate of transfers in London than in the rest of the country (see Chapter 4 for details). Yet, almost 1 in 10 students are dropping out of higher education altogether.

As Figure 3 shows, overall drop-out rates for UK-domiciled students have increased in each of the last three recorded years. This has been driven by large increases in drop-out rates in the North West, the West Midlands, Yorkshire and Humberside and the North East. In contrast, London has made improvements over the last two years, although from a high starting point of almost 10%. Regardless of this London remains the worst performing region.

As Figure 4 shows, there is marked variation in drop-out rates between students who enter university straight from sixth form or college and those who enter at a later age (post-21). In each instance, the drop-out rates for older students are much higher than for younger students. In some cases, the mature drop-out rate is double that of young entrants. There is imperfect correlation between the retention rates of the two groups regionally, suggesting that the factors influencing their drop-out rates are likely to be different. For this reason, and because younger students represent the vast majority (80%)¹⁵ of university intake, our analysis focuses on younger students, though we discuss the range of potential factors facing older students later in the report.

Figure 4: Proportion of UK-domiciled students that drop out of higher education by end of first year



Chapter 3: Analysis

In this section, we explore the factors that may be contributing to the differences in drop-out rates across regions and institutions. The institutional and regional drop-out rates are likely to reflect the student population and the factors that influence the experience being lived by the student. Previous work has shown that students with certain characteristics are more likely to drop out of university compared to their counterparts and we are particularly interested in seeing how these factors may be influencing regional drop-out rates. When focusing specifically on regional drop-out rates it is important to consider the number of universities within each region. There are five universities within the North East compared to 33 within London. The small number of universities within the North East may influence the reliability of the results. Where possible we have ensured that all data reflects the same academic year, drop-out rates are from the academic year 2014/15, and this is the most recent data available. Where possible the student population refers to young full-time first-degree entrants, though in some exceptions this specific data was unavailable.¹⁶

Theoretical concepts

The issue of student retention has been discussed at length in the academic literature, providing a number of theories that can guide our choice of variables to test our analysis. The literature tends to identify two concepts that help explain the propensity of students to drop out from university. These are: a student's sense of belonging (the idea that their aims and identity are in consonance with their experience of the institution); and their level of engagement

(the extent to which students actively engage with all dimensions of the university experience).¹⁷

A sense of belonging captures how well students feel they 'fit in' to their university environment. This factor is likely to be influenced by personal relationships, both those at home and at university. It is also related to whether a student feels that the university is 'for them'. Academic life can also play an important role in fostering a sense of belonging: it is beneficial if students are able to interact with academic staff and if teaching is of a high standard. There is also a need for students to feel valued within academia.

Engagement is defined as "the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities".¹⁸ There is also evidence to suggest that students do not always recognise the value of engagement and could therefore take actions that inhibit their engagement without realising the effect this may have on their academic outcomes.¹⁹ There is likely to be significant overlap and interaction between 'sense of belonging' and 'engagement'. This may become manifested through a vicious cycle where a student who feels that she does not belong may subsequently become more disengaged, with the consequence that her sense of belonging will be eroded further.

In addition to these factors, financial constraints may influence a student's decision as well as limiting their opportunities to engage in university life (for instance if they have to work long hours to survive financially).

Student characteristics

Background student characteristics – such as socio-economic status and ethnicity – can play an important role in determining drop-out rates.

Gender

Since 2003, the male drop-out rate has been higher than that of females. Using the last gender specific data reported by the Higher Education Funding Council for England, in the academic year 2012/13 the drop-out rate for male students was 8%, whereas female students had a drop-out rate of 6.3%. Men are also less likely to attend university than women.²⁰ Later we will look to see if gender proves to be a significant contributing factor to drop-out rates when controlling for other characteristics.

Socio-economic background

There is substantial evidence that differences in socio-economic background affect retention rates. A Future Track report²¹ found that students were more likely to drop out of university if their parents had not attended university or if their parents worked in routine or semi-routine jobs than if they worked in professional or managerial positions. Institute for Fiscal Studies (IFS) research on student attainment and retention has focused specifically on the outcomes of those from lower socio-economic backgrounds. The research found that socio-economic background has a significant influence on degree outcome and states that “even amongst those on the same courses, individuals from lower socio-economic backgrounds are more likely to drop out and less likely to graduate with a first or 2:1 than individuals from higher socio-economic backgrounds”.²²



Figure 5: Relationship between socio-economic score and drop-out rates by institution

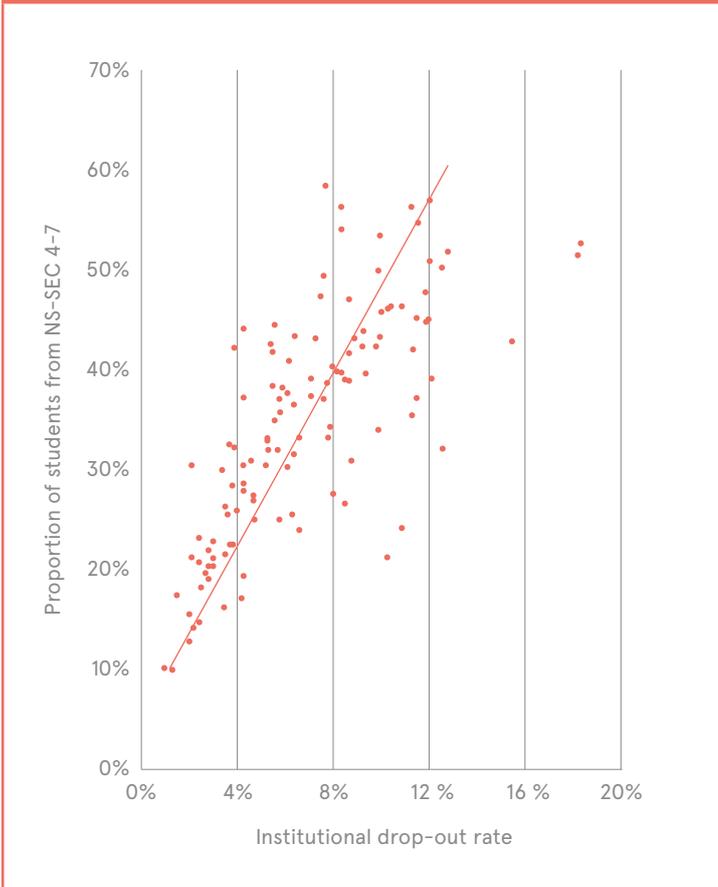


Figure 5 shows that there is a clear correlation between the proportion of students whose parents work within the National Statistics Socio-economic Classes 4-7 (NS-SEC) – lower-level occupations – and the university drop-out rate. Whilst this factor may explain differences experienced at an institutional level, Figure 6 suggests that parental occupation background may be less important in explaining the regional differences. Universities within the West Midlands have the highest proportion of students from NS-SEC 4-7 (42%); in contrast, the drop-out rate among these universities is slightly higher than the English average.

Whether students come from areas with high or low participation rates

The Higher Education Statistics Agency release a set of annual statistics that measure whether the higher education (HE) sector is achieving its aim of widening participation. One of the measures used is the Participation of Local Areas (POLAR3), which captures what proportion of the young population in that area attend university. These statistics are reported at a regional and local authority level. The regional differences are captured in Figure 7. The gap in non-continuation rates between those from quintile 1 (most disadvantaged) and quintile 5 (most advantaged) has widened in recent years.²³

The map below shows that Greater London and the surrounding regions have the highest levels of participation in HE (dark blue). Meanwhile, the North East and Yorkshire and the Humber have the lowest levels of participation (red). Low participation within certain areas is likely to reflect the level of economic deprivation as well as whether the area has historically sent low or high proportions of its population to university.

Figure 6: The relationship between regional NS-SEC and drop-out rates

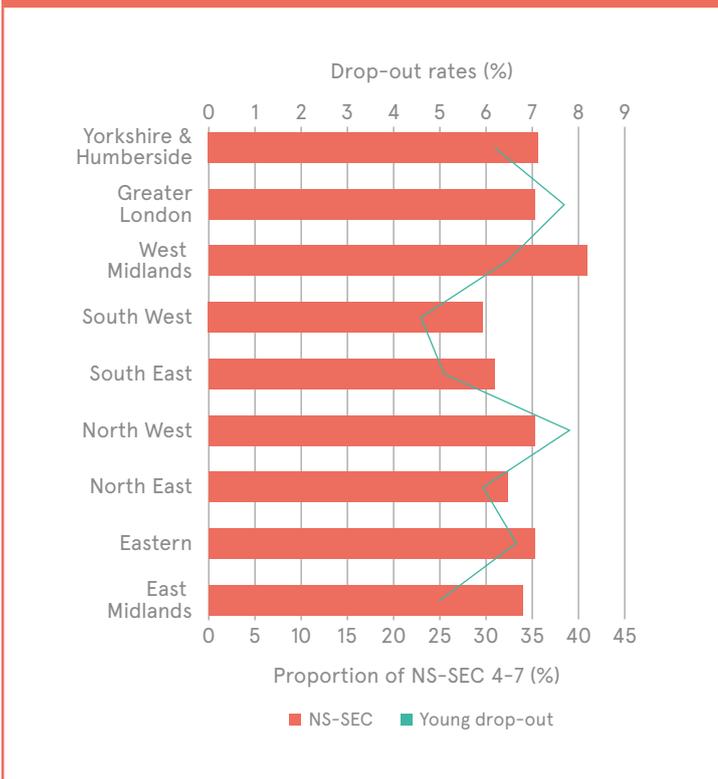


Figure 7: Regional rates of participation in higher education²⁴

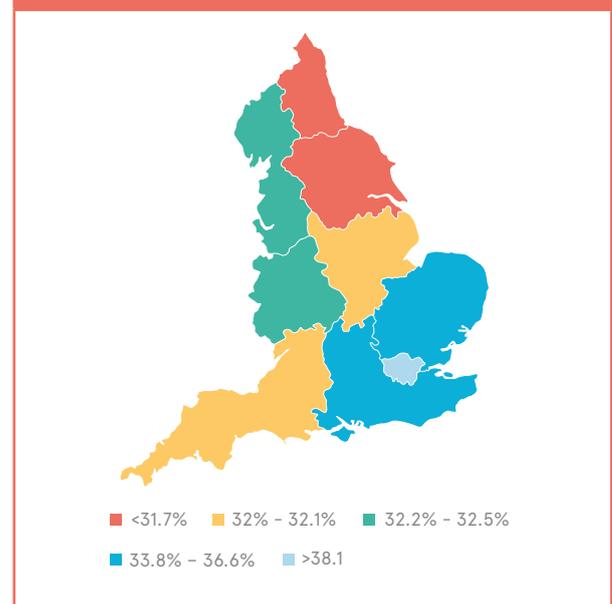


Figure 8: Proportion of students from low-participation areas by region of institution and regional drop-out rate

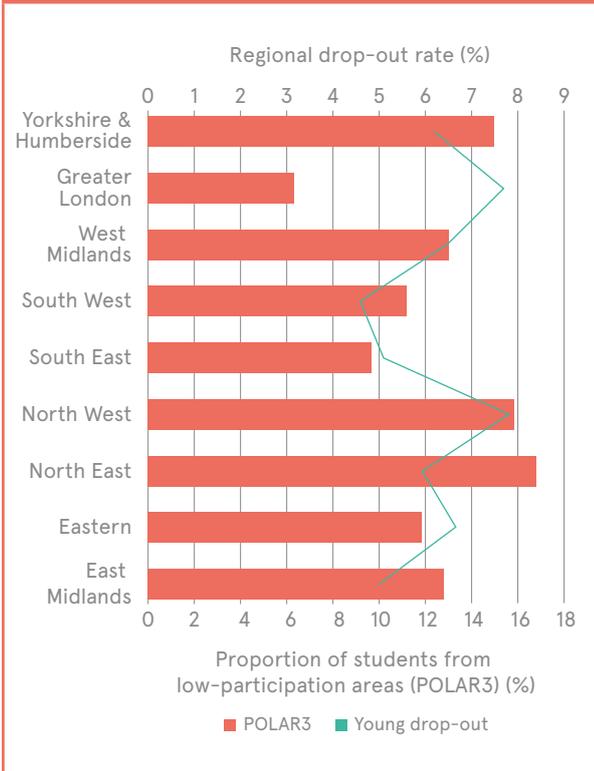


Figure 8 shows that among students who attend universities in Greater London only a small proportion of individuals come from low-participation areas compared to other regions. This is likely to reflect the fact that many students attending London universities lived in the capital prior to their studies. As Figure 9 shows, the relationship between the proportion of students from low-participation areas and the institutional drop-out rates is markedly stronger in the rest of the country than in London. We will return to this complex inter-relationship later in the paper.

Prior attainment

The prior attainment of a student may influence his/her ability to adapt to the academic aspects of university life. Difficulties associated with learning may contribute to a reduced sense of engagement with academic life; in such circumstances, students may be more likely to withdraw from HE. Research conducted by the IFS shows that differences in the human capital of students from different backgrounds at the point of university entry is important in understanding the socio-economic differences in drop-out rates.²⁵ The research also concludes that once we have controlled for human capital differences the differences in outcomes by socio-economic background become smaller but still significant from zero.

Figure 9: Relationship between the proportion of students from low-participation areas and institutional drop-out rates

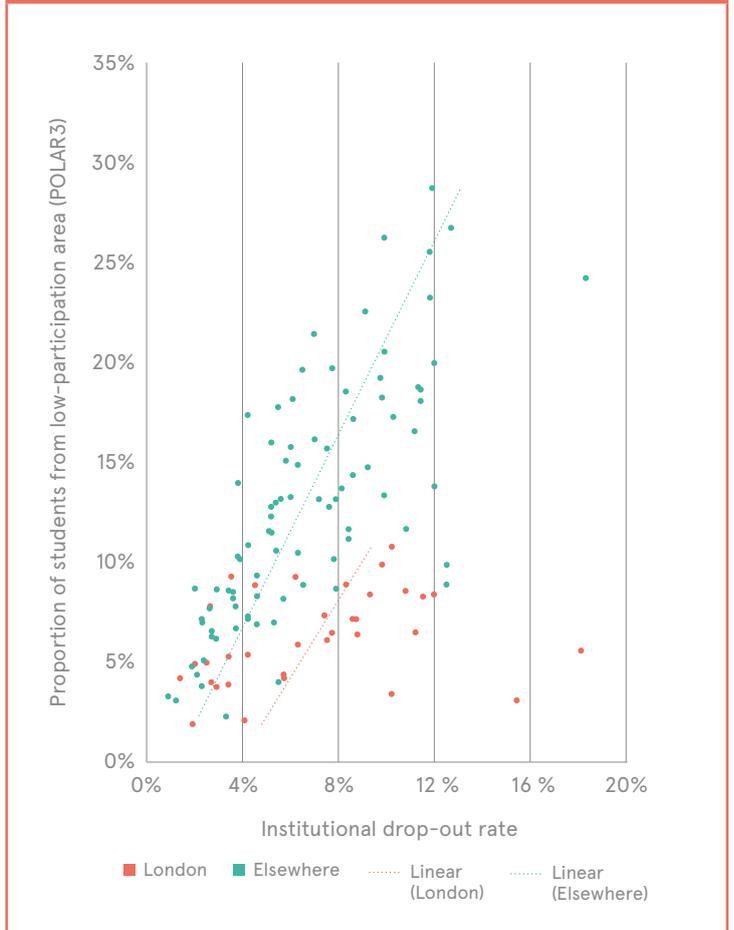


Figure 10: Relationship between average institutional UCAS tariff and drop-out rate

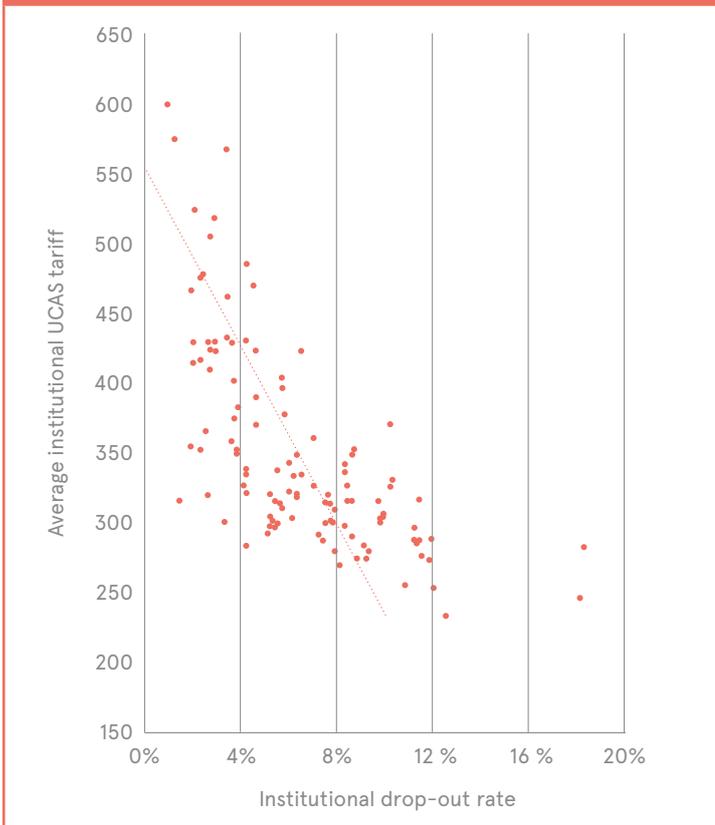


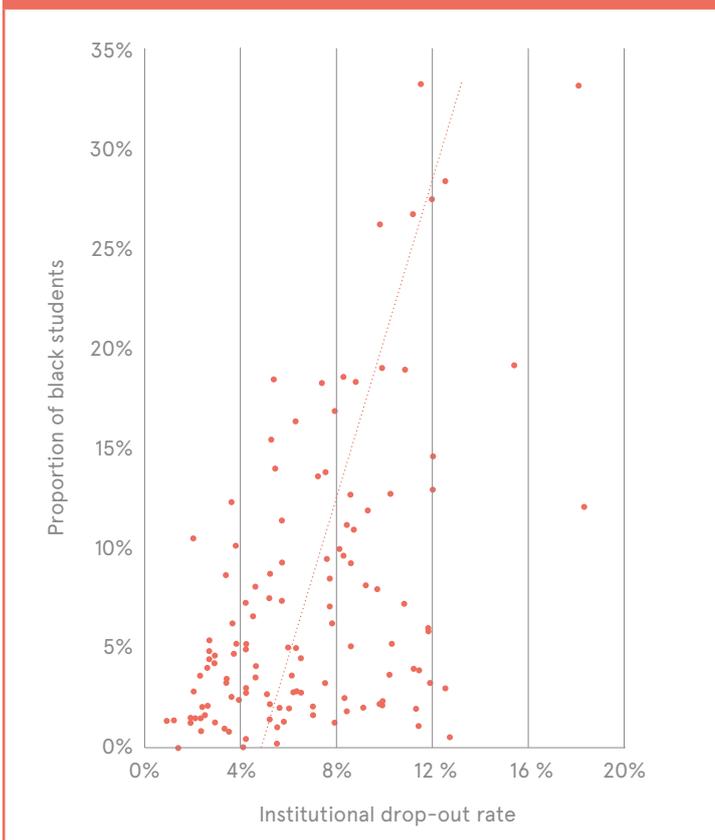
Figure 10 shows the relationship between institutional drop-out rates and the average Universities and Colleges Admissions Service (UCAS) tariffs of the institution’s student population, with prior attainment data obtained from the Complete University Guide. There is a clear negative correlation between the two; universities with lower-tariff requirements experience higher levels of drop-out. However, there is considerable variation in the average UCAS tariff for institutions where the drop-out rate is below 5%. London has one of the highest drop-out rates and yet the average UCAS tariff score is the second highest in the country (355).

Ethnicity

Research has shown that different ethnic groups display varying propensities to drop out. This statement still holds when controlling for age, university subject and the entry qualifications of the students.²⁶ Our discussions with university leaders in London and outside reinforced the significance of this factor.

Within certain regions and institutions, the ethnic mix of student populations may be driving drop-out rates. In our analysis below we focus on Black students because past research has indicated that this group are more likely to leave university early. The Black drop-out rate is almost 1.5 times higher than the rate of White and Asian students.²⁷ According to Teaching Excellence Framework (TEF) data, 10.3% of Black students drop out of university, compared to 6.9% for the whole student population; this data includes both young and mature students in all years of education.²⁸

Figure 11: Relationship between institutional drop-out rate and the proportion of Black students



The relationship between the proportion of Black students and the institutional drop-out rate may be contributing to regional differences, particularly when focusing on London (see Figure 11). On average 16% of students at London universities identify as Black. There is significant regional variation associated with this measure; Black students make up less than 2% of the student population in the North East and less than 3% in the South West. The relationship between other ethnicities and drop-out rates appears less marked, though there are likely to be differences within the broader categories.

Understanding how and why ethnicity plays a role in a student’s decision to leave HE is vital. Universities themselves find it challenging to respond to the complexity of issues related to ethnicity, which are ‘structural, organisational, attitudinal, cultural and financial’.²⁹ Contributing factors could include: lack of cultural connection to the curriculum, difficulties making friends with students from other ethnicities, or difficulties forming relationships with academic staff due to the differences in background and customs. Research has also shown that students from some ethnic backgrounds are much more likely to live at home during their studies;³⁰ this point will be explored in more detail in the following sections of this paper.

Through analysis of the TEF data, we are able to see that a number of institutions are performing much better and much worse than their benchmark when it comes to Black students.

Summary:

Initial descriptive analysis has shown there to be relationships between drop-out rates and student characteristics. London as a region has one of the highest levels of participation in HE and understanding how this translates into higher than average drop-out rates should be a key area for London-based institutions and policy makers. There is evidence to suggest that factors such as ethnicity and socio-economic background could be driving the London effect.

Institutional factors

Alongside the impact of student characteristics described above, institutional factors may contribute to higher than average levels of student drop-out. These factors are likely to influence a student’s sense of belonging and their ability to engage with all aspects of university life.

Campus setting

The literature shows that a student’s sense of belonging is important in ensuring they continue in HE. Having a university setting that enables students to socialise and attend extra-curricular activities may increase the level of retention. We therefore hypothesise that campus universities, with buildings, facilities and accommodation grouped more closely together, may experience lower drop-out rates than their non-campus counterparts.

For our analysis we use the *Which?* university guide which separates universities into campus and non-campus institutions. Figure 13 shows that campus universities tend to perform better in terms of student retention. Campus based universities have an average drop-out rate of 5.9%, lower than the non-campus average of 6.8%. We were able to carry out a test to check whether the apparent difference between campus /non-campus was simply reflecting the effects of a different factor. For instance, it could be that non-campus universities are overwhelmingly lower or higher-tariff universities. When splitting institutions by tariff the pattern that campus universities perform better holds, but the same is not true for medium-tariff universities.

Figure 12: Proportional difference between institutional benchmark and observed drop-out rates for Black students (%)

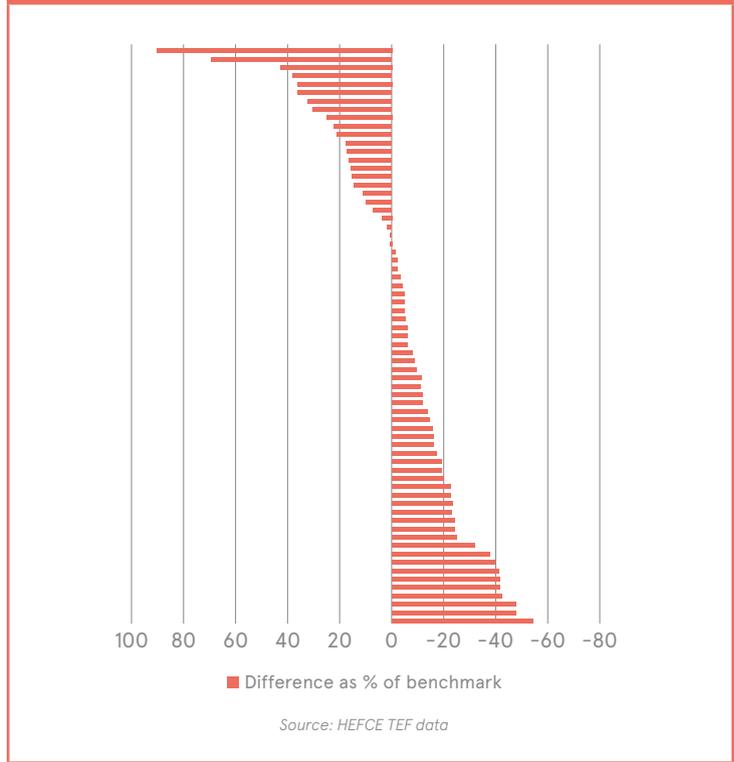


Figure 13: Institutional drop-out rates by campus type

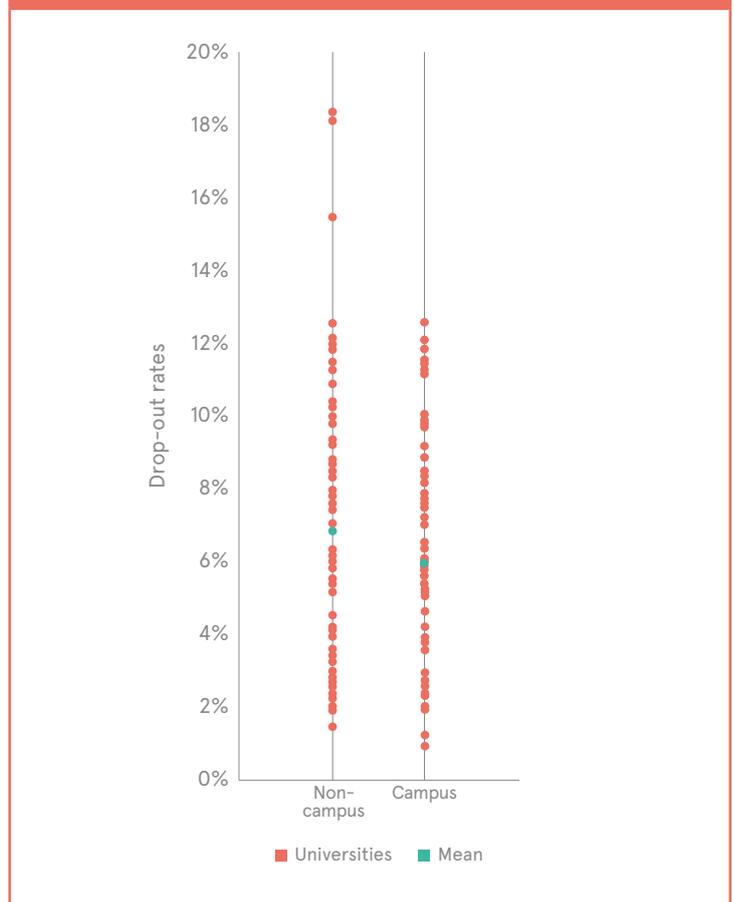
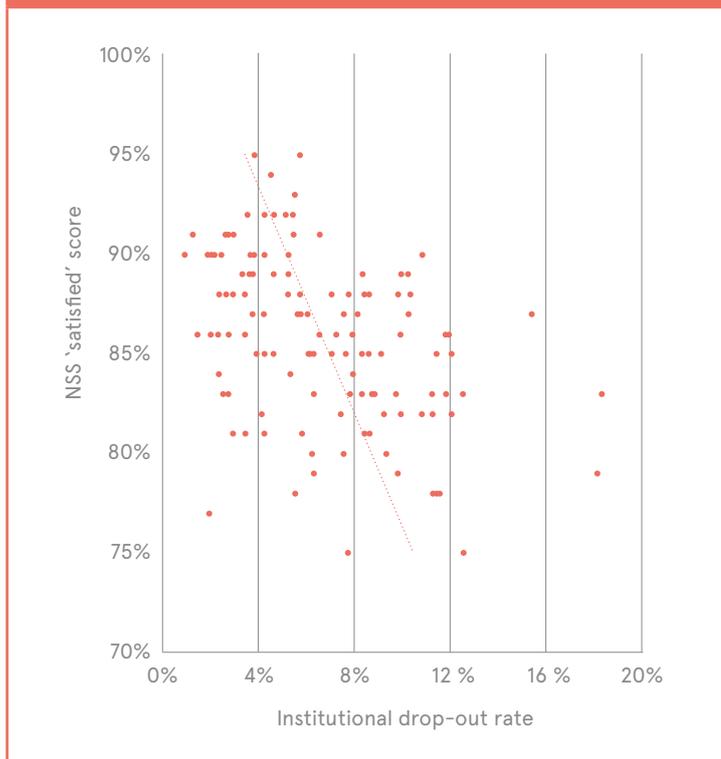


Figure 14: Relationship between institutional drop-out rates and NSS scores



However, when focusing on the regional differences the picture is less clear: the average regional drop-out rate is *higher* in London, the North East and the North West for campus universities. Given the small sample size, this result should be treated with caution.

There are potential limitations in the way that campus status is determined as our source provided a binary definition, although the variation within each category is likely to be significant (e.g. how dense the estate is, the mix of campus and non-campus and how urban the university is).

Student satisfaction

Institutional behaviour may also influence drop-out rates. This may occur through the standard of teaching and the academic experience. To assess this, we explore scores for student satisfaction in the NSS. We find some evidence to suggest that satisfaction plays a role in students' decisions. Percentages used are for respondents who 'definitely' or 'mostly' agreed with question 22 in the survey, 'Overall, I am satisfied with the quality of my course'. Institutions that have a low NSS score appear to have higher levels of student drop-out. There are some limitations associated with the NSS measure, including that participation is limited to students who are in their final year of their degree. In other words, the association is between students in their third

year who have stayed at university reporting lower satisfaction scores and higher year one drop-out rates at the same institution. This result is likely to be a conservative estimate (because it excludes those who have already dropped out who could be expected to register negative scores).

Regional averages vary from 84% satisfied in London up to 88% satisfied within the North East. This implies that universities themselves can influence their drop-out rate. Retention rates are not purely a product of the characteristics of the student intake.

Summary:

It appears that institutional factors may influence retention rates and therefore institutions themselves can actively work to address their retention issues. Low levels of student satisfaction are correlated with high levels of drop-out. We also find evidence to suggest that non-campus universities tend to have higher drop-out rates.

Living and the cost of living

Living patterns and living costs may also affect retention rates.

Commuting distance and living at home

At present, there is a lack of empirical evidence on the effect of commuting distance on student retention in the UK (though we are aware of interesting research currently being undertaken). We hypothesise that students who commute long distances are less likely to be engaged with social activities and may be less likely to develop a sense of belonging. This idea is supported by qualitative research conducted by Liz Thomas and Robert Jones. They find that commuting students experience a lack of 'place' to spend time and where they can 'belong'. Students who commute may make value assessments on the efficiency of attending a taught lecture or seminar and tend to value academic engagement more than social activities.³¹

There is a lack of institutional-level data on commuting and the proportion of students who live at home. The analysis below uses data based on a student survey conducted in 2014 by Education Phase on behalf of BBC TV Licensing,³² which gathered regional data on student commuting behaviour. The average student commutes 5.1 miles from their student address to university each day – this increases to 7.7 miles when focusing on those in London. It should be noted that this analysis is based on average

distances and is likely to miss out a number of important aspects of any 'commuting effect'. First, the average commuting distance in this instance will include those who live within close proximity to the university and potentially even those who live on campus and therefore the distance travelled by students who opt to live at home during their studies could be much higher. Second, the commuting distance may translate into different travel times in different regions depending on levels of congestion.

Figure 15 shows the trend between regional commuting distances and regional drop-out rates. Overall, there appears to be a positive relationship between drop-out rates and commuting distance; however there are some clear instances that go against the trend, specifically the North West.

A related factor is the extent to which students live at home. Students living at home may be expected to engage less fully with university life and have weaker university networks. In 2014/15, 19% of full-time and sandwich students opted to stay within their family home.³³ With the exception of the North West and Yorkshire and Humberside there appears to be a correlation between the proportion living at home and the subsequent drop-out rate.

London has the highest proportion of students living at home (31%), significantly higher than the proportion of students studying in the South West who opt to live at home (12%). Understanding how these variables interact, particularly when controlling some of the student characteristics mentioned above, is important if institutions, particularly those in London, are to address their retention issues.

The similarity between Figures 15 and 16 suggests that there may be an interaction effect (for instance with students who live at home typically commuting further).

Cost of living

A final factor that we discuss is the cost of living. Our discussions with London-based universities revealed some concerns about affordability. This is likely to be explained by the higher costs of living in the capital (although this is at least partly compensated for with more generous loans).

High costs of living may directly influence a student's ability to engage with social and academic aspects of university life due to an inability to afford to socialise. Students who are financially constrained may find themselves needing to work long hours in order to continue to fund their studies. These students may find themselves excluded from social activities due to work hours and in some instances may find this influences their ability to engage academically.

Figure 15: Regional drop-out rates and commuting distances

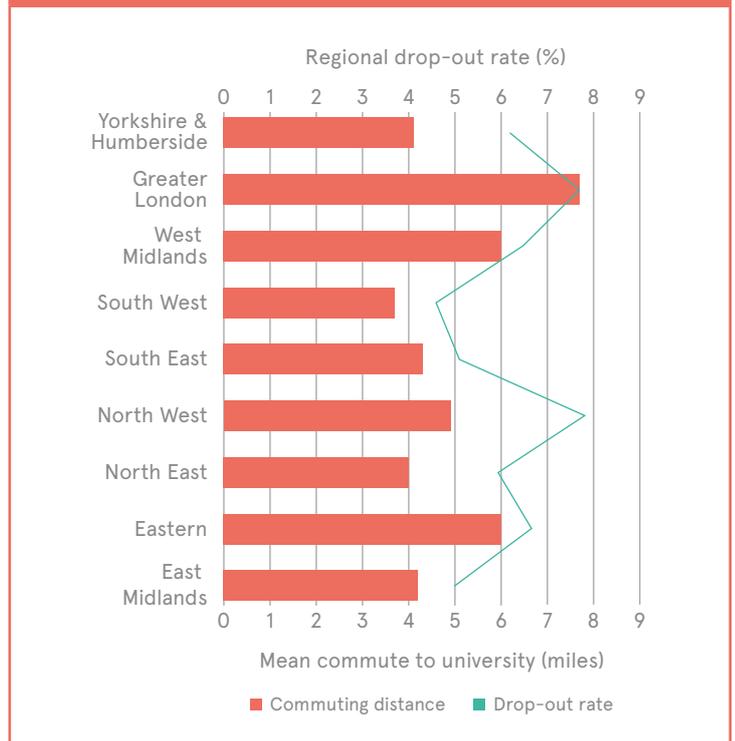


Figure 16: Regional differences in the proportion living at home and drop-out rates



It is problematic to analyse cost of living. There are likely to be some students for whom the cost of living will contribute to their decision to exit HE, however there are difficulties capturing this when using institutional and regional data. Figure 17 below uses a broad measure of the cost of living from a regional perspective.³⁴ This calculation includes rent, the cost of a bus pass, nightclub entry and the price of student drinks. However, our measure is reported at a regional level and we would expect cost of living to vary significantly within regions as well as between. Based on this limited analysis, we find little association between retention rates and cost of living at a regional level.

Figure 17: Regional drop-out rate and the cost of living



We sought to assess more localised costs of living. However the data we secured provided only a narrow view of cost of living (housing).³⁵ Analysis of this revealed no apparent correlation – but more detailed analysis of cost of living data is needed to analyse the relationship in more depth.

Summary:

In London, a significant proportion of students decide to live within the family home during their studies. This could be as a result of the high cost of living. Understanding how both of these factors influence the London drop-out rate is an important issue for London and other city-based institutions.

Regression Analysis

Above we have described how a range of factors are associated with drop-out rates and whether these may explain regional retention rates. Below we set out the results from a regression analysis. Our regression contains data on 114 institutions within England, with data from the same academic year (2014/15) unless stated otherwise. The variables we want to analyse have been divided into three themes (see Appendix A). Following the results of a multicollinearity test the proportion of students living at home and the regional cost of living have been excluded from the analysis due to their correlation with the London dummy – the results of this test can be found within the appendix. The results of an initial regression analysis showed signs of heteroscedasticity and therefore we have conducted a log-transformation on a number of the percentage variables.

Variable	Coefficient (*sgf)	P-values
Proportion of Black students	0.139*** (0.050)	0.007
Proportion of Asian students	-0.116*** (0.054)	0.036
Proportion of Female students	-0.407** (0.215)	0.061
Proportion from NS-SEC 4-7	0.763*** (0.125)	0.000
Proportion from low POLAR3 areas	0.299*** (0.074)	0.000
Campus dummy	-0.005 (0.061)	0.938
UCAS	-0.001*** (0.000)	0.003
Proportion satisfied (NSS)	-1.184** (0.614)	0.057
University population	5.71e-07 (3.68e-06)	0.877
Distance moved by region	0.002 (0.002)	0.317
London dummy	0.262*** (0.097)	0.008

Notes: *** indicates significance at a 5% level, ** at a 10%. Standard errors are reported in parenthesis

Student characteristics

Our results show that student characteristics have a significant impact on the institutions' drop-out rate. Both variables relating to the ethnic mix of the institution's population have shown to be significant at a 5% level. There is a positive relationship between the proportion of Black students and drop-out rates. This supports literature reviewed previously and the trend shown within the descriptive statistics. In contrast, the relationship between the proportion of Asian students and institutional drop-out rates

is negative. These ethnic groups are very broad and a more detailed analysis would be beneficial.

There is a negative relationship between female students and drop-out rates, some of which may be explained by subject choice, given there is substantial variation in drop-out rates by subject. In the academic year 2014/15 Computer Science had the highest subject drop-out rate at 11%, and only 15% of students studying this course were female. Institutions with higher than average numbers of male and Black students are likely to have higher drop-out rates. London has the highest proportion of Black students but there appears to be no regional pattern associated with gender.

When controlling for the student characteristics above, the socio-economic background of a student still plays a significant role in determining the likelihood of dropping out. This is true for the proportion of students from NS-SEC classes 4 to 7 and the proportion of students from low-participation areas as defined by POLAR3. Both of these factors are shown to have a significant and positive relationship on an institution's drop-out rate.

Institutional factors

Institutional factors have the ability to contribute to higher than average levels of student drop-out. We found no evidence to suggest that being a campus-based institution influences the drop-out rate all other things being equal. As discussed earlier, there are potential limitations in the way that campus status is determined and it merits further analysis.

Average UCAS scores of the student population is a signal of prior student attainment and the human capital when students arrive at university. It may also reflect the level of prestige of the institution. Our analysis has shown that there is a negative relationship between the average UCAS tariff and the university drop-out rate; this is significant at a 5% level.

The NSS score encompasses the level of satisfaction felt with the quality of the university course. The results show that at a 10% significance level there is a negative relationship between the proportion of students who are satisfied with their course experience and the institution's drop-out rate.

Living and the cost of living

The regions of England vary in both their student retention rates and their geographical characteristics.

Our results show that there is no significant relationship between the average regional distance moved and the university drop-out rate. As previously mentioned the distance moved data comes from a survey conducted by Education Phase on behalf of BBC TV Licensing and occurred in the summer of 2014. There are a number of reasons as to why this

measure may be masking a number of underlying factors. Regions such as the West Midlands and East Midlands may find themselves with lower values for the average distance moved purely due to their position within the country.

Finally, understanding the specific London effect is complex. We have seen that London has the highest drop-out rates for all undergraduates and one of the highest for young undergraduates, but that it also scores highly on a number of the student characteristics that we have shown to have a significant impact on the level of student drop-out. Our initial regression results show that there is a London effect when controlling for all variables discussed. At face value, these results would suggest that attending an institution based in London influences a student's drop-out rate holding everything else equal. However, caution should be exercised in interpreting these results: if we do not control for the proportion of students who come from low-participation areas then the London effect proves to be insignificant. We believe that this result may occur due to London POLAR3 scores (as discussed earlier).

Evidence shows that London residents are the most likely to participate in HE and that a significant proportion attend university in the same region (based on the proportion of students who opt to live at home and commute). However, once at university, characteristics such as ethnicity and socio-economic background influence London student's drop-out rates in ways that did not influence their propensity to enter university.

To summarise: London universities have a high proportion of students from low socio-economic backgrounds and from ethnic minorities, and this partly explains the higher than average level of drop-out seen within the region. At the same time, students at London universities tend to come from areas with high university-participation rates; and students from high university-participation rates typically have lower drop-out rates.

As described below, factors interact in complex ways. Therefore, our results should not be interpreted to mean that various factors are not important for specific institutions in specific ways, or in relation to particular student groups.

Summary:

The regression analysis has supported many of our earlier hypotheses including the importance of student characteristics on drop-out rates, particularly socio-economic background and ethnicity. Satisfaction levels have a significant influence on drop-out rates, implying that retention is at least partly within the control of universities.

How do the concepts interact?

Our regression results have shown a number of factors to be insignificant even though theoretically we expect them to influence drop-out rates. Whilst these factors prove to be insignificant on average at an institutional level, it is still possible that they influence the drop-out rates at certain institutions and for some groups of students. There are likely to be a number of interactions occurring within the variables and some of this will not be captured within our regression analysis. The regression results should not be used in a way that diverts attention from issues that could be of importance for a number of students.

While we were unable to get to the bottom of the effect of cost of living through our data analysis, anecdotal evidence from universities within London show that this is a concern, particularly when focusing on the issue of retention. There is mixed evidence on the importance of institutional-based financial assistance programs, with some reviews showing no difference in retention rates amongst those in receipt of support.³⁶ However, students often report that financial support enables them to stay on their course and often they consider withdrawing less than their peers do.³⁷ This is supported by research conducted by Bristol University that shows that the University's financial support may both encourage student retention and add positively to the student experience of its recipients.³⁸

In addition, our initial research found no evidence to suggest that distance moved (from home to university) is significant at an aggregate level. The data used within this analysis is from a survey conducted in the summer of 2014. However, research has shown that students from lower socio-economic backgrounds are more likely to choose a university based on its proximity to home.³⁹ Independently, students from lower socio-economic backgrounds are more likely to drop out of university. However, it is possible that distance and staying at home during their studies is influencing their individual sense of belonging. Students may be less likely to feel a full sense of belonging to their university life if they remain connected, both mentally and physically, to their home environment.⁴⁰

Summary:

Overall, we have shown that student and institutional characteristics are highly important drivers of drop-out rates. However, the evidence was less conclusive on a number of variables that theoretically could be influencing retention. Our regression results do not show how these factors will influence individual students and therefore factors such as the cost of living should not be ignored.





Chapter 4: Policy steps to boost retention

This chapter describes the steps that universities and policymakers could take to help address the retention challenges in higher education identified in Chapter 3 and in the existing evidence base. These include the propensity of students from different backgrounds to drop out, the importance of a 'sense of belonging' and engagement in university and academic life, and the impact that financial constraints can have.⁴¹

Action for government and regulators

Targeting the end goal

Successive governments have used targets to raise the profile of higher education (HE) participation rates and as mechanisms to hold government to account. In the early part of the last decade, Prime Minister Tony Blair famously set a target to achieve 50% of the population attending university.⁴² Subsequently other targets have directed attention on specific challenges. Currently there is a goal to double the proportion of young people from disadvantaged backgrounds entering HE by 2020 compared with 2009. This includes increasing the number of students from Black and minority ethnic (BME) communities studying in HE by 20 per cent by 2020.⁴³

Our analysis reveals that for HE to function effectively as a driver of social mobility, policy and attention must put equal weight on retention and participation. As a recent report by the Bridge Group concluded, 'Policy and practice designed to boost social mobility are still focused disproportionately on promoting access to HE' rather than the outcomes achieved.⁴⁴

Therefore, policy focus needs to shift towards the wider student journey: attending university, staying and graduating are ultimately the metrics of social mobility.

Such a target could build on the Office for Fair Access's (OFFA) success measure, namely the proportion of young entrants from quintile 1 POLAR3 remaining in study after their first year reaching 92% by 2019-20.⁴⁵ The Higher Education and Research Act has started the reorientation towards graduate outcomes and gaps between different groups.⁴⁶

In developing such a target, consideration should also be given to degree level apprenticeships, which are likely to expand under the Apprenticeships Levy. Although rarely discussed, apprenticeships suffer significant levels of drop-out.⁴⁷

We note that the drop-out rates for different parts of the population vary markedly. For instance, the drop-out rate for Black students is 10.3% compared to the average of 6.9% (this data includes students in all years both young and mature students throughout all years of education as represented within the Teaching Excellence Framework [TEF] metrics).⁴⁸

Recommendation One:

The Government should introduce a new target to remove the completion gap (compared to the average) for Black students and those from disadvantaged backgrounds by 2025. In today's terms this means a reduction for Black students from 10.3% to the average of 6.9%.

The London story

Now is also the time for city leaders to take a stronger lead in HE. Many of England's major cities now have elected mayors who have influence and power over agendas such as skills and the local economy.

As this report shows, London faces particular challenges around university retention. While it has successful schools and sends a high proportion of its population onto HE, these successes are not always being translated into attainment at university. London's relatively poor performance in university retention is part of this story. It is one that needs to be rectified. While young people in London are more likely than similar individuals in other regions to attend university, drop-out rates are also higher.

Sadiq Khan, the Mayor of London, recently established a 'Skills for Londoners taskforce'.⁴⁹ Many of its lines of enquiry could be of relevance to improving retention rates, including careers advice and its focus on high-quality apprenticeships. More generally, although HE is a market overseen by Whitehall, there may be important roles for civic leaders. Such roles could include assessing what more could be done through housing, transport and leisure amenities to help students participate fully in university life. In addition, mayors should ensure that careers advice and support to help young people choose their university destination is well-resourced.

Recommendation Two:

The Mayor of London should seek to help to improve university retention rates in the capital through his new skills taskforce. Other mayors should follow suit,

including in the North West where retention rates are also poor. This should include housing, transport and planning policy to help ensure that universities are well-placed to fully involve students in university life. Representative(s) from higher education should also sit on the taskforce.

Protecting social mobility funding in higher education

In its manifesto, the Conservative Party spoke of launching a 'major review' of funding across tertiary education as a whole, to ensure that students get access to financial support that offers value for money. This initiative was not mentioned in the Queen's Speech. If such a review takes place, in assessing funding across higher and further education, this report re-emphasises the importance of protecting and enhancing mechanisms to boost more diverse student populations and helping them stay the course. Funding has and is financing a wide range of important tests and initiatives to improve retention rates.

Recommendation Three:

The Government should continue to prioritise higher education participation as a route for social mobility.

Re-thinking regulation and Access Agreements

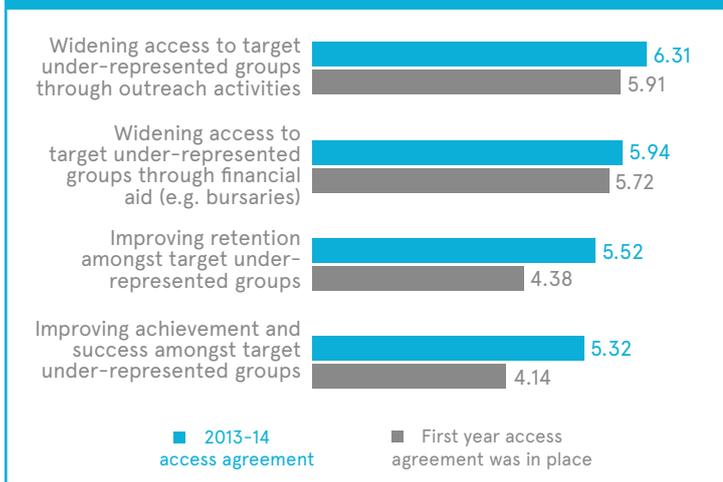
The creation of a new unified regulator in HE offers the prospect of a more coherent approach towards widening participation, including a more meaningful focus on the student journey. According to the Government, the new Office for Students will 'combine the existing regulatory functions of the Higher Education Funding Council for England (HEFCE) and OFFA to integrate the funding and expertise of

the two organisations and enable a coherent strategy for widening participation.⁵⁰ The Government intends that the regulator embeds access in all relevant operations and it is important the new regulator builds on the direction of travel established by OFFA.

Access Agreements are contracts between a university and the regulator (currently OFFA). All institutions that wish to charge more than the basic fee must submit and agree an access agreement. These agreements oblige institutions to fulfil various requirements including how they will spend a proportion of the additional fee element ('access agreement expenditure') on initiatives that promote access. These can include encouraging entry into university as well as retention and attainment measures.⁵¹

Analysis of access agreements carried out in 2013 revealed that universities have given greater focus over time to widening access, retention and attainment. The focus on retention has grown since the first year of agreements. However, universities allocated a higher proportion of their access expenditure to widening access rather than retention among under-represented groups.

Figure 18: Comparison of the priority given to specified activities in the first year access agreement was in place with that given in 2013–2014 (7-point scale, where 1 = 'low priority' and 7 = 'high priority') (All respondents that had an access agreement in place prior to 2013–14. Mean ratings, variable bases).⁵²



Our conversations with universities revealed a significant and growing focus on retention as part of the WP agenda. This is also reflected in OFFA data showing that three quarters of institutions have set retention targets in their 2016/17 access agreements.⁵³ However, consideration should be given by the OfS to how retention can be prioritised further in Access Agreements so that it achieves parity.

Recommendation Four:

The Office for Students should consider how retention achieves parity in focus from universities in driving wider participation.

Facilitating Transfer

Enabling students to move universities and courses may help reduce drop-out rates as some students will find themselves on an unsuitable course or at the wrong institution but will want to continue their studies.

Our conversations with universities revealed mixed levels of enthusiasm about the ability of credit transfer to significantly alter the non-continuation rate. While all were in favour of facilitating easier movement of students, some felt that the reasons that determined whether or not a student wished to stay in HE ultimately would not be altered significantly by the ease of movement to an alternative institution. In 2015/16, 13% of students who dropped out of an English institution in 2013/14 were back in HE at another provider. Meanwhile, 77% of students remained out of the HE system and the other 10% resumed study at the same institution. The relevant figure for students who left London institutions and returned to a different HE provider was 15%.⁵⁴

The Higher Education and Research Act seeks to activate a more flexible and seamless system. Credit transfer policies provide assurance that students can take accumulated study credits with them to other institutions. Theoretically, such a scheme should enable more students to remain in HE on the basis that some students find themselves poorly matched with specific courses or institutions rather than with HE per se. Credit transfer may also enable greater lifelong learning and part-time studying.⁵⁵ A recent review of the literature for the Department for Education found that credit transfer schemes in the UK are relatively under-developed (apart from in the Open University).⁵⁶

Despite these changes, universities do not have a strong incentive to help students re-locate, despite the fact that the host university is likely to play an important part in facilitating a good transfer. As it stands universities have a financial stake to lose and do not receive any upside by facilitating a transfer. Rectifying this situation could be particularly important in London due to the concentration of institutions and consequentially the potential for students to switch institution.

Recommendation Five:

The Office for Students should consider introducing rewards for institutions that facilitate successful transfer of students from their institution to another institution.

Promoting outreach

Traditionally outreach activities have been designed to promote and prepare potential candidates to apply to university. Our evidence and discussions with the sector suggest that it is important to prepare students for their experiences at university, especially those who are coming from families where going to university may not have been the norm. There are already a significant number of outreach activities underway. For instance, the National Collaborative Outreach programme has been set up to deliver outreach through consortia including schools, colleges and charities. HEFCE (to become OfS) is providing £30 million in 2016-17 to establish the programmes and then £60m per year from 2017-18.⁵⁷

The Conservative manifesto contained a pledge to 'make it a condition for universities hoping to charge maximum tuition fees to become involved in academy sponsorship or the founding of free schools'. We believe that this could be an important interaction by which to help prepare school pupils for university life.

Preparation could include helping to ensure that students from groups that are more likely to drop out attend open days, subsidies to attend and 'taster sessions' ahead of the first term. For instance, a study found that a pre-college program for engineering students resulted in higher retention when compared to students who did not participate in the pre-college programme.⁵⁸

These activities can potentially follow students into university. For instance, we have heard anecdotal information of schools working with ex-pupils even as they progress into university, with the aim of providing them with stability and confidence.

Recommendation Six:

Schools and universities should put in greater effort to prepare prospective students from more disadvantaged backgrounds for the academic and lived experience of university.

Better matching and course suitability

A fundamental determinant of whether a student can fully engage with academic life is the extent to which they are suited to their university course. By this we mean that they enjoy their course, have a strong motivation to learn and have the aptitude for learning and successfully completing assignments. Failing to engage with a course can be a reason for dropping out.⁵⁹

Below we discuss two features of the system that affect matching: good careers advice prior to application; and good admissions processes.

Much of the process of university and course selection takes place ahead of interaction with the university. We heard in our research that by the time some students are at university studying a particular course then it is too late to address the retention problem. Careers advice is central to enabling good decision-making. The information and advice that students receive from their college or sixth form can be the difference between making a good or bad decision. However, we also know that some schools have reduced their careers advice support over time.⁶⁰

There are also lessons for university admissions procedures. With the growth in student numbers and the competition of enrolments, we should be concerned that students are being admitted who are not prepared for HE and that universities lack the resources to support these students. During our research we were told about some innovative practices where universities purposefully discuss with potential candidates the implications of studying at university so as to test their suitability.

Given the high proportion of students that are matched with their course and university through clearing and the speed and lack of information (on both sides) during this process, further attention should be given to ensuring that admissions processes achieve a good result.

Recommendation Seven:

The Government and UCAS should study the effect of clearing on retention rates in universities.

Ethnicity challenge fund

A recurrent feature of our discussions and of reports into retention is the significant variation between different ethnic groups. Ultimately this derives from a broad range of causes, including the design of curricula which may unconsciously marginalise specific groups. In some cases, ethnic and cultural factors interact with other factors such as living at home and commuting distances to affect consumer engagement and sense of belonging. Universities UK, through its Social Mobility Advisory Report, argued that for BME students the 'focus should be on improving their progression through higher education and into the labour market'.⁶¹

Our discussions suggest that universities are taking this seriously and we encountered a wide range of initiatives.

Broadly, problems emerge in the academic and social spheres. For instance, research has suggested that curricula may not engage individuals from BME backgrounds. This is particularly important given the fact that other evidence advocates embedding



retention activities in the wider curriculum and culture of the university. Existing evaluations also suggest the importance of the student body having a clear mechanism for giving feedback on courses that is taken seriously by course conveners, to the extent that mechanisms are trusted by students.⁶²

Recommendation Eight:

The Government should establish an 'Innovation Challenge Fund' to provide funding for new schemes that help improve retention of students from ethnic backgrounds that typically display higher drop-out rates (e.g. Black students).

What universities could do

Below we discuss emerging evidence and practice from the UK HE sector and abroad. Given the weight of existing peer-reviewed evaluations of interventions (for instance through the Higher Education Academy and *What Works?*), we focus on exploring new concepts that could be tested out by institutions in the capital and beyond, especially those that emerged through our conversations with institutions.⁶³ We also suggest some future lines of inquiry in the quest to understand drop-out rates for older students.

1. Providing employment through the university

Chapter 3 described how a sense of belonging and attachment to the university as well as financial constraints can contribute to non-continuation. University-provided employment opportunities are an attempt to address both challenges. Employment provides an opportunity for students to engage in university life, whether this is in the library, cafe, bar, Student's Union, shop or through peer mentoring. University employment was also seen by some

officials as a constructive way to help students cope financially. As its most basic level it provides wages to students. However, universities are aware of the other demands on their students' time and are able therefore to regulate how much students work, ensure that employment does not make excessive demands of them and that students have the requisite flexibility to complete their studies.⁶⁴ Universities can also set wages at reasonable levels.

Some USA universities have pursued this policy. Princeton's Student Employment Program offers centralised locations for all jobs available for students on campus. It is open to all undergraduate students. In 2013-14, almost half of their students worked part time.⁶⁵

2. Monitoring and early intervention

Identification strategies using either pre-university characteristics or behaviour within university can help target those most at risk of dropping out. Stevenson University targeted 'at-risk' students, who generally were in the lowest 20% of the cohort according to high school grades, and enrolled them to attend a PASS scheme.⁶⁶ This meant that they regularly met a mentor, who would give them personal and academic advice and assign them further assistance where necessary. First-to-second year drop-out rates fell from 35% to 27%.⁶⁷ A similar design is in use at the University of Cardiff.⁶⁸

More versatile early identification systems use algorithms and real-time data on student behaviour to identify students 'at-risk'. 'Learning Analytics' can use a combination of background characteristics, prior grades and university engagement activities to create student profiles.⁶⁹ Digital engagement dashboards can track student participation in their academic studies, such as visits to the library, use of computers and VLE,

attendance at lectures and seminars. Students can view this dashboard and if engagement activities fall below a certain level, students are contacted for a meeting with their academic advisor who can discuss academic issues or refer them to the necessary personal services.

3. Nudging students

New technologies allow for students to be reached in new ways. Trials by the Behavioural Insights Team have shown in further education settings that text messages to students can increase attendance levels. Messages were designed to make classes more salient when students were at home, to encourage students to engage with their classmates on social media and thus increase a sense of belonging and to provide encouragement.⁷⁰ Through our research we heard of similar work being tested in higher education settings, although the final results are yet to be published.

4. Networks

Students often make decisions influenced by the people around them, and especially those they trust, such as their family and close friends. As such, the personal networks that students keep when they join university and create at their university are vital to whether they stay in university.⁷¹

Different parts of the student experience may determine how they form their networks, and especially to what extent the networks they form are intertwined with the university itself. Our analysis of campus universities motivates the question of how institutions with more dispersed estates, student bodies and leisure facilities can replicate or create opportunities for students to build these networks. For example, those attending non-campus universities have more scope to form their networks away from the institution: perhaps at work, or in city social groups. Those that have moved away from home to attend university have no alternative but to seek to establish new networks within the university; whereas those that have stayed in their hometown, or only moved a short distance away, are more likely to retain the networks they formed previously.

Past research through the *What Works?* initiative concluded that 'an integration of the social and academic elements of university life is key'.⁷² The report also demonstrated the effectiveness of a 'welcome week', in the place of 'fresher's week'. It maintains the social element of fresher's week but aims to make it more inclusive, with a focus on extra-curricular activities rather than the tradition of nightclubbing. This allows a wider variety of activities to be offered to students, especially improving access for mature students and those living at home (who may not be able to participate in late-night activities) and to students from other cultures (which may discourage or prohibit drinking).

5. Learning practices

Looking ahead, transformations to educational practices are likely to present both opportunities as well as challenges. Accessing learning content remotely and participating remotely is likely to enable some people to continue their studies when they would otherwise struggle to engage in their academic studies. However, it may also contribute to greater detachment and a reduced 'sense of belonging'.

We can envisage 'edtech' driving a further wave of innovations and challenges by blending the virtual and the physical. Academic material can be published online, with online discussion groups increasingly prevalent. This may help to increase students' academic life, especially in cases where students are unable to participate fully in the physical university experience (for example, those living at home, or with job demands). Digital engagement where possible should be an extension of, rather than a replacement of, conventional engagement activities.

What influences mature students?

Whilst the bulk of this analysis has focused on the young population, mature students have much higher non-continuation rates (11.6%).

Further and deeper analysis of this issue is required. Based on our discussions and our analysis we propose some areas for further work:

- Mature students may be less likely to identify with their university and possess a sense of belonging. Predominantly their networks and connections may be outside of the university (e.g. in family, other networks or work).
- Older students are likely to have more complex lives, including work commitments and dependents.
- The cost of living measures used for the young population are unlikely to be relevant for the mature population as their income and expenditure patterns are likely to be different. Anecdotal evidence has suggested that mature students who finance their own studies are highly likely to drop out, although the population of this group is small.
- The opportunity cost associated with studying is likely to be more apparent to mature students who are forgoing earnings and may value this highly due to previously having been in work.
- Some factors are likely to be less important for mature students including the campus setting. Campus universities still have lower drop-out rates compared to non-campus universities, however, the difference between the two is noticeably smaller: 11.4% for campus universities compared to 11.9% to non-campus universities. This is a difference of 0.5% compared to 0.9% for young students.

Reskilling is essential to the UK economy and mature students are an essential part of this agenda. More needs to be done to understand why mature students leave HE and this research should help promote change that ensures mature students succeed in HE.

Conclusions and summary

This report has demonstrated the range of factors that affect retention rates across English universities and across regions. Those individuals who have typically been the focus of university access policies (namely ethnic minority groups and those from poorer backgrounds) remain more likely to drop out of university.

Our research into the retention challenge reveals significant variation between regions. This is partly explained by the demographics of the students that attend university in different regions. But other factors may also play a part including the performance of universities (e.g. how the university is rated by students). While our analysis does not provide conclusive evidence that being a campus or non-campus university contributes to higher drop-out rates, this is worthy of further analysis as are other lived experiences such as commuting distances and living arrangements.

There are positive signs that the Government and universities are placing greater weight on retention now than they did in the past. The report argues that this shift should continue so that retention is viewed as of equal importance to access.





Appendix A

Correlation matrix

	Dropout	POLAR3	NSSEC47	Black	Asian	Gender	Moved	London	PatHome	Regional	Pop	UCAS	Campus
Dropout	1												
POLAR3	0.5065	1											
NSSEC47	0.7498	0.5086	1										
Black	0.5448	-0.1169	0.6092	1									
Asian	0.2255	-0.1013	0.5064	0.5751	1								
Gender	0.1987	0.2239	0.2753	0.0814	-0.057	1							
Moved	-0.1365	0.1961	-0.1847	-0.3927	-0.4313	-0.0892	1						
London	0.0863	-0.4858	-0.0405	0.3548	0.2221	0.0888	-0.5021	1					
PatHome	0.1955	-0.2178	0.1436	0.4027	0.3497	0.0723	-0.8163	0.6759	1				
Regional	-0.0001	-0.452	-0.0997	0.2027	0.13	0.0703	-0.1848	0.867	0.267	1			
Pop	-0.1071	-0.0208	-0.0084	0.0706	0.2168	-0.2693	0.099	-0.2551	-0.1285	-0.2234	1		
UCAS	-0.6242	-0.4047	-0.5454	-0.3452	-0.0608	-0.3059	0.1702	-0.0564	-0.1323	-0.0106	0.3236	1	
Campus	-0.1117	0.1356	-0.0281	-0.0603	-0.0191	-0.0351	0.2058	-0.472	-0.3846	-0.3913	0.2238	0.1442	1

The table above shows the correlation matrix created prior to running the regression analysis, because of the findings the percentage living at home and the regional cost of living have been excluded, as showed

by the highlighted values. Whilst the regional cost of living was removed due to the correlation results, the variable has a number of limitations that suggest this is best.

Regression variables:

Student characteristics:

- Socio-economic background; captured through both the National Statistics Socio-economic Classification (NS-SEC) and the percentage of students from low-participation areas.
- Ethnicity; here we have separate variables for the percentage of Black and Asian students – this is restricted to those who are domiciled in the UK.
- Gender; the proportion of female students at each institution.

Institutional factors:

- Campus dummy.
- UCAS tariff; this captures the quality of the university and the prior attainment of students.
- Student satisfaction; here we use the National Student Survey.
- Size of university; represented by total student population.

Regional aspects:

- Distance moved to university; this shows in miles the distance students have moved from their home town to university (regional average).
- London effect; captured through a London dummy variable.

Factors investigated but not reported:

- Students' employment prospects at different institutions has only a weak correlation with their drop-out rates. This reinforces existing evidence that day-to-day elements (i.e. a sense of belonging) are more important than economic factors.
- The population size of an institution has little to no correlation with drop-out rates. Hence, large institutions are not systematically worse at taking care of their students.
- We have looked at the extent to which the university is specialised. This looks at how the student population is split across the subject disciplines. There appears to be no relationship between the level of specialisation and the university's drop-out rate.

Footnotes

1. BIS, *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* (2016)
2. Based on an estimate of the likelihood of a young person participating in Higher Education by age 30
3. House of Commons Library, *Participation in higher education in England and the UK* (2016); https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/552886/HEIPR_PUBLICATION_2014-15.pdf
4. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/569410/Social_Mobility_Commission_2016_REPORT_WEB__1___.pdf
5. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/543126/SFR37-2016_-_WPHE2016_01.08.2016.pdf
6. <https://www.hesa.ac.uk/data-and-analysis/performance-indicators/widening-participation-summary>
7. <https://www.hesa.ac.uk/data-and-analysis/performance-indicators/widening-participation-summary>
8. <http://www.timeshighereducation.com/news/uk-has-lowest-drop-out-rate-in-europe/2012400.article>
9. Rhys Davies and Peter Elias, *Dropping Out: A Study of Early Leavers From Higher Education* (2003)
10. <https://academic.oup.com/esr/article/2863970/Is-Education-a-Risky-Investment-The-Scarring>
11. SMF, *Staying the course: Student retention at English universities* (2016)
12. BIS, *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* (2016)
13. BIS, *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* (2016)
14. Universities per region: East Midlands 9, Eastern 9, Greater London 33, North East 5, North West 14, South East 17, South West 13, West Midlands 12, Yorkshire and Humberside 11
15. This figure refers to full-time first degree entrants in 2014/15 (HESA)
16. The data exceptions were: ethnicity and gender (all UK-domiciled students); university population (all students); National Student Survey (Final Year Undergraduate Students); employment prospects (UK Domiciled students obtaining First Degree); and UCAS tariff (all Undergraduate Entrants).
17. Liz Thomas, *Building student engagement and belonging in Higher Education at a time of change: final report from the What Works? Student Retention & Success programme*, (2012). Although the emphasis and interpretation of a sense of belonging and its relevance to different student groups has been challenged through Kate Thomas, 'Dimensions of belonging : rethinking retention for mature part-time undergraduates in English higher education' (Birkbeck PhD, 2016)
18. G.D. Kuh, *What Student Affairs Professionals Need to Know about Student Engagement*. *Journal of College Student Development*, (2009)
19. Liz Thomas, *Building student engagement and belonging in Higher Education at a time of change: final report from the What Works? Student Retention & Success programme*, (2012)
20. Department for Business Innovation & Skills, *Socio-economic, ethnic and gender differences in HE participation*, BIS RESEARCH PAPER NO.186, (2015)
21. Department for Business Innovation & Skills, *Learning from Futuretrack: Dropout from higher education*, BIS Research Paper No.168, (2014)
22. Claire Crawford, *Socio-economic differences in university outcomes in the UK: drop-out, degree completion and degree class*, IFS Working Paper W14/31, (2014)
23. OFFA, *Outcomes of access agreement monitoring for 2015-16*, (2017)
24. <http://www.hefce.ac.uk/analysis/yp/POLAR/Map,of,young,participation,areas/>
25. Claire Crawford, *Socio-economic differences in university outcomes in the UK: drop-out, degree completion and degree class*, IFS Working Paper W14/31, (2014)
26. Higher Education Funding Council England, *Non-continuation rates at English HEIs: Trends for entrants 2005-06 to 2010-11*, (2013)
27. OFFA, *Outcomes of access agreement monitoring for 2015-16*, (2017)
28. <http://www.hefce.ac.uk/lt/tef/data/>
29. Jacqueline Stevenson, *Black and minority ethnic student degree retention and attainment*, The Higher Education Academy, (2012)

-
30. Jonathan Neves and Nick Hillman, Student Academic Experience Survey 2017, (Higher Education Academy and Higher Education Policy Institute), (2017)
31. Liz Thomas and Robert Jones, Student engagement in the context of commuter students, (The Student Engagement Partnership), (2017)
32. <https://www.theguardian.com/news/datablog/2014/aug/18/students-travel-average-91-miles-home-university>
33. <https://www.hesa.ac.uk/data-and-analysis/students>
34. Regional cost of living includes rent, the cost of a bus pass, nightclub entry and the price of student drink. <http://www.bedfordshire-news.co.uk/east-england-named-cheapest-student-region-uk/story-27793547-detail/story.html#r68Rq5iSyZ1UiCQZ.99>
35. This data was obtained by The Money Charity in 2014 and 2015 through a series of Freedom of Information requests.
36. OFFA, Do bursaries have an effect on retention rates? (2014)
37. Nursaw Associates, What do we know about the impact of financial support on access and student success? (2015)
38. Hoare, T & Lightfoot, J, Student funding, student retention and student experiences: perspectives from Bristol, (2015)
39. National Union of Students, NUS Student Experience Report, (2008)
40. Pokorny, H, et.al., Commuting, transitions and belonging: the experiences of students living at home in their first year at university, (2016)
41. HEFCE, Causes of differences in student outcomes (2015)
42. <http://news.bbc.co.uk/1/hi/education/1789500.stm>
43. <http://www.hefce.ac.uk/news/newsarchive/2016/Name,107737,en.html>
44. <https://thebridgegroup.org.uk/wp-content/uploads/2017/05/Social-Mobility-and-University-Careers-Services-report-Digital.pdf-1.pdf>
45. <https://www.offa.org.uk/press-releases/faster-progress-needed-on-fair-access-at-highly-selective-universities-offa/>
46. <https://thebridgegroup.org.uk/wp-content/uploads/2017/05/Social-Mobility-and-University-Careers-Services-report-Digital.pdf-1.pdf>
47. <https://fullfact.org/education/how-many-apprenticeships-are-successfully-completed/>
48. <http://www.hefce.ac.uk/lt/tef/data/>
49. http://www.sadiq.london/skills_for_londoners
50. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/527757/bis-16-292-ofs-case-for-creation.pdf
51. <https://www.offa.org.uk/universities-and-colleges/guidance/offa-countable-access-agreement-expenditure/>
52. <https://www.offa.org.uk/wp-content/uploads/2013/12/Uses-and-impact-of-access-agreements-and-associated-spend.pdf>
53. <https://www.offa.org.uk/wp-content/uploads/2015/07/Access-agreements-for-2016-17-key-statistics-and-analysis.pdf>
54. <https://www.hesa.ac.uk/data-and-analysis/performance-indicators/non-continuation>
55. http://dera.ioe.ac.uk/28446/1/Credit_transfer_in_Higher_Education.pdf
56. http://dera.ioe.ac.uk/28446/1/Credit_transfer_in_Higher_Education.pdf
57. <http://www.hefce.ac.uk/sas/ncop/>
58. Factors Affecting the Graduation Rates of University Students from Underrepresented Populations <http://files.eric.ed.gov/fulltext/EJ987305.pdf>;
59. Vicki Trowler, Student engagement literature review (Lancaster University, 2010)
60. http://www.unialliance.ac.uk/wp-content/uploads/2014/05/Closing_the_gap_web.pdf
61. <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2016/working-in-partnership-final.pdf>
62. <http://www.ecu.ac.uk/wp-content/uploads/external/ethnicity-gender-and-degree-attainment-project-final-report.pdf>
63. See for instance, Professor Liz Thomas, Michael Hill, Dr Joan O' Mahony and Professor Mantz Yorke, Supporting student success: strategies for institutional change What Works? Student Retention & Success programme: Final Report (HE Academy, 2017); Oliver Webb, Lynne Wyness
-

and Debby Cotton, Enhancing access, retention, attainment and progression in higher education: A review of the literature showing demonstrable impact (2017); Joanne Moore, John Sanders and Louise Higham, Literature review of research into widening participation to higher education: Report to HEFCE and OFFA by ARC Network (HEFCE, 2013)

64. It remains hard to assess the effect of student employment on campus on student retention in part because it is vulnerable to selection bias (opting to work for the university may be a proxy for readiness to engage in university life more generally).
65. <http://www.princeton.edu/pr/aid/pdf/1415/PU-student-employment-2014-15.pdf>
66. https://www.ruffalonl.com/upload/Student_Retention/REA_Compndium_2016_new.pdf
67. <https://nscresearchcenter.org/snapshotreport-persistenceretention22/>
68. <http://blogs.cardiff.ac.uk/learning-technology/2014/07/15/using-digital-footprints-to-improve-student-retention/>
69. http://he-analytics.com/wp-content/uploads/SP13-3249_-Master17Aug2015-web.pdf
70. <http://www.behaviouralinsights.co.uk/wp-content/uploads/2017/04/ALERT-working-paper-2017.pdf>
71. <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/education-attainment-interventions-full.pdf>
72. https://www.heacademy.ac.uk/system/files/sunderland_what_works_final_report_0.pdf

