



Institute for Fiscal Studies

Briefing Note

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Family background and access to postgraduate degrees



Department
for Education

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Executive summary

This Briefing Note uses linked administrative data to investigate gaps in access to postgraduate degrees. The numbers of students progressing to postgraduate study are increasing rapidly, such qualifications could therefore be an important driver of differences in early career opportunities. Yet while there has been significant attention focussed on access to undergraduate study in the UK, there has been very little equivalent work on postgraduate access. Investigating this topic is especially important given the environment of unregulated fees and – until recently – a lack of availability of student loans. We investigate access to postgraduate study – including masters, PhDs and PGCEs – by age 30 for those who left secondary school in the mid-2000s. We outline our key findings below:

Key findings

There are very large gaps in access to postgraduate degrees. Of those coming from the most advantaged quintile of state-educated students in England, around 18% proceeded onto postgraduate study, while the equivalent share for the privately educated is 27%. For the poorest quintile of state students, just 4% proceed to any postgraduate study.

Almost all of the gaps can be explained by attainment in school. While there are large raw gaps in participation, these differences are roughly halved once controls for Key Stage 2 (age 11) attainment are included. Once controls for Key Stage 4 (GCSE) attainment are included the 14ppts raw gap becomes just 1ppts. Key Stage 5 (A level) controls reduce this yet further.

Taking university attainment into account means poorer students are actually marginally *more* likely to progress onto postgraduate study. Conditional on Key Stage 2, 4 and 5 scores as well as university degree classifications, subject and institution, poorer students are ever so slightly more likely to progress onto postgraduate study. While statistically significant, this negative gap is extremely small.

Conditional on attainment poorer students are *more* likely to do a PGCE. Although the overall gaps in PGCE participation are relatively small, poorer students are significantly *more likely* to progress to PGCE qualifications conditional on age 18 attainment, with this gap growing once we include all attainment up to the end of university.

The results are remarkably robust to different specifications. We explore gaps between private and state students, the gaps between the richest students and middle-income students and also gaps in access to the highest-returning masters courses, drawing on estimates from our new paper on the returns to different postgraduate degrees (Britton et al, 2020). We furthermore explore gaps in participation at age 25 for a cohort born 5 years later. In all cases we find that the gaps in participation are extremely small, zero, or even marginally negative, once prior attainment is taken into account.

Future work should consider more recent cohorts and the impact of postgraduate loans. This work is – as far as we are aware – the first to document access gaps for postgraduate study and the role of prior attainment in explaining these gaps. We show this for cohorts who mostly have taken postgraduate degrees in the late 2000s and early 2010s. Important changes to postgraduate education which have taken place since then – notably the introduction of postgraduate loans – may have affected participation for more recent cohorts.

1. Introduction

Over the past 20 years, the number of students starting postgraduate degrees each year has more than doubled to around 350,000 in 2017/18.¹ It is therefore likely that such degrees are becoming more important for securing well-paid jobs.

Unlike for undergraduate degrees, fees for postgraduate degrees are unregulated, but more importantly, until very recently students have not had access to government-backed income contingent loans to cover the costs of these qualifications. This has meant students have had to rely on their own or their parents' resources, grants and fee waivers (such as from the Research Councils), or private loans, which often come with very high interest rates.

It is therefore possible that postgraduate degrees are creating barriers that limit job opportunities and earnings prospects of students coming from poorer households. In a new paper (Britton et al., 2020)², we show that there are many postgraduate degree options that can significantly increase earnings, with masters degrees in law, economics and business appearing to have particularly large positive effects. However, these degrees can be extremely expensive: for example, a masters in economics at the London School of Economics starting in August 2020 will cost just over £29,000.

The aim of this Briefing Note is to investigate the gaps in access to postgraduate degrees between students coming from richer and poorer backgrounds, and to look at the extent to which those gaps can be explained by the prior attainment of the students. This is important because unexplained gaps in access might point to financial rather than academic barriers to entry, which would have important implications for policy.

While differences in access to undergraduate degrees by parental background have been extensively documented (see, for example, Crawford et al., 2016)³, there is very limited equivalent evidence for postgraduate degrees. We mirror the approach of some of the undergraduate access work and use linked administrative school and university records to fill this gap in the evidence. We investigate rates of postgraduate study by age 30 and how this varies by socio-economic status (SES), dividing up postgraduate degrees into PGCEs, masters and PhDs. We then look at how these gaps change once we account for SES differences in attainment in school and in undergraduate degrees. In order to observe rates of postgraduate study by age 30 we have to rely on quite an old cohort of students (namely those who turned 21 in around 2007). The main drawback of this approach is that these individuals mostly went to university before income contingent loans for postgraduate student were introduced by the government in 2016. We discuss avenues for future research in the final section.

¹ Numbers from HESA student numbers statistics for 2017/18 and 1997/98.

² Britton, J., Buscha, F., Dickson, M., van der Erve, L., Vignoles, A., Walker, I. and Zhu, Y. (2020), The earnings returns to postgraduate degrees in the UK, Department for Education Report

³ Crawford, C., Dearden, L., Micklewright, J., Vignoles, A. (2016) Family background and university success: Differences in higher education access and outcomes in England, Oxford University Press

The rest of the report is laid out as follows: in Section 2 we describe the data and methodology. In Section 3 we document the composition of postgraduate students by socio-economic background and in Section 4 we investigate the extent to which the gaps in participation are explained by prior attainment. Section 5 concludes.

2. Data and methodology

We are interested in the relationship between parental background and access to postgraduate degrees, and the extent to which differences in prior attainment can explain these relationships. To investigate this, we make use of National Pupil Database (NPD) data linked to Higher Education Statistics Agency (HESA) data. The NPD includes all individuals who went to secondary school in England, while the HESA record includes all undergraduate and postgraduate degrees done in the UK.

From the NPD, we make use of information on free school meal eligibility, local area deprivation, school type and Key Stage 2 (age 11), GCSE (age 16) and A level (age 18) subjects and grades. From the HESA data we make use of information on undergraduate institution attended, subject studied and degree classification. We also use the HESA data for information on postgraduate study.

As our data do not have any direct information on parental income, we instead follow several previous papers (e.g. Chowdry et al, 2013)⁴ and construct a proxy for socio-economic background based on the local area in which people live. We combine individual-level information on free school meal (FSM) eligibility with various measures of socio-economic circumstances based on the local area of residence of each individual at age 16, including: Output Area-level measures of the proportion of individuals with at least Level 4 qualifications; the proportion with no formal qualifications and the proportions working in higher and lower managerial and professional occupations⁵ from the 2001 census; and a Lower Super Output Area-level measure of the proportion of children under the age of 16 who live in low-income households.⁶ We combine these measures into a single continuous index of socio-economic status (SES) using principal component analysis. We then divide individuals into quintiles based on their rank in this SES index. As we do not have information on the home residence of privately educated individuals, we can only create this index for state-school pupils.

We focus on the earliest possible NPD cohort, which sat GCSE examinations in 2002 (i.e. most of the individuals in this cohort were born between 1st September 1986 and 31st August 1987). The key advantage of using this cohort is that it allows for the fact that people start postgraduate degrees throughout their twenties. Our last year of HESA data is 2016/17, which means we can capture anybody from this cohort starting a postgraduate degree by age 30. A clear drawback of using this cohort is that it does not tell us about more recent trends in access.

In our main specification, our aim is to investigate the gap in access to postgraduate courses between individuals from the top and bottom 20% of parental SES, and then to explore how much of this gap can be explained by prior attainment. We do this through a

⁴ Chowdry, H., Crawford, C., Dearden, L., Goodman, A. and Vignoles, A. (2013), Widening participation in higher education: analysis using linked administrative data. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 176: 431-457

⁵ NS-SEC level 1 and level 2 respectively.

⁶ Output Areas (OAs) contain approximately 125 households each, while Lower Super Output Areas (LSOAs) contain around 650 households each. We measure the proportion of children in low-income households comes using the Income Deprivation Affecting Children Index (IDACI).

simple a linear probability model (LPM) that includes only those in the bottom and top SES quintiles as follows:

$$PG_i = \alpha + \beta \text{TopSESquintile}_i + X_i' \gamma + \epsilon_i \quad (1)$$

Here PG_i is an indicator for whether individual i has been enrolled in a postgraduate course by the end of our sample period and the coefficient β gives us the percentage points difference in postgraduate attendance between children with parents in the highest SES quintile and those with parents in the lowest quintile (the omitted category).

In our first specification, X_i does not contain anything, meaning that β will give the raw participation gap between those from the highest and lowest quintiles. To investigate how much of this difference can be explained by children from higher socio-economic backgrounds having better prior attainment from school and university, we then sequentially add measures of prior academic attainment of the individuals to X_i . We add measures of performance at age 11 (KS2 grades in maths, English and science), age 16 (total KS4 points, grades in English and maths, and indicators for the total number of GCSEs at each grade), age 18 (A-level points score, dummies for science, maths and social science A levels) and university level (degree class, subject and institution of undergraduate degree). At each stage, the remaining differences in access between high- and low-SES individuals can be interpreted as the difference in access that cannot be explained by differences in academic attainment *up to that point*. Our final specification will therefore show the gap in postgraduate access that cannot be explained by differences in prior academic attainment from either school or university.

We divide postgraduate courses up to look separately at Postgraduate Certificates in Education (PGCEs) and masters/PhDs combined. In our additional work we also investigate access to courses that have high private returns, as estimated in Britton et al (2020).

3. How big are participation gaps?

Before turning to the estimates from our regression model, however, we first document some of the descriptive facts from our data. Previous work in the UK⁷ has shown that students from the most advantaged backgrounds are much more likely to attend university than those from the least advantaged backgrounds.

We start in Table 1 by documenting equivalent numbers for the 2002 GCSE cohort, before showing access to postgraduate degrees, broken down by the degree type. As described in the previous section, we divide all of the state-educated students into five quintiles based on a continuous social economic index generated from local area statistics based on where they lived when they were aged 16. Here we also pull out those who went to a private secondary school in England as a separate group as we cannot create the SES index for them.

Consistent with previous studies, the first column of Table 1 shows a strong SES gradient in participation rates at *undergraduate* first-degree level. Fewer than one in five of the least advantaged students start an undergraduate degree by the age of 30, while nearly three in five of the most advantaged state school students and more than four in every five private school pupils do an undergraduate degree.

Table 1. Participation rates by quintile of socio-economic background

	UG	Russell Group UG	Any PG	PGCE	Masters	PhD	Masters or PhD
SES Q1 (bottom)	18.1%	1.9%	3.8%	1.2%	2.9%	0.2%	2.9%
SES Q2	27.0%	3.6%	6.3%	1.9%	4.9%	0.5%	5.0%
SES Q3	35.4%	6.0%	9.2%	2.7%	7.2%	0.9%	7.4%
SES Q4	44.4%	9.8%	12.8%	3.5%	10.1%	1.4%	10.4%
SES Q5 (top)	58.4%	17.7%	18.1%	4.4%	14.7%	2.1%	15.2%
Private school	81.5%	43.9%	27.4%	4.6%	24.0%	3.1%	24.5%
Population	39.7%	10.2%	11.2%	2.9%	9.1%	1.2%	9.3%

Notes: Undergraduate and postgraduate participation rates for the 2002 GCSE cohort. Undergraduate access is based on first degree level. SES is based on several measures of deprivation combined into one continuous index, and is based on state educated students only. Each column shows the percentage of each SES quintile and privately educated students who have started the degree listed in the column title by age 30. These participation rates also include individuals who start, but do not graduate from, a degree. The Masters or PhD column shows individuals who have started a masters degree and/or a PhD (most, but not all of those who start a PhD have previously done a masters).

The next column in Table 1 looks at the proportion of students who attend a Russell Group university for their undergraduate degree. Differences in participation are now even starker: among the poorest students 2% - or one in ten of those that attend university - go to a Russell group institution. Among the wealthiest state educated students, 18% go to a Russell Group university, which is around a third of those in that group who attend

⁷ Crawford, C., Dearden, L., Micklewright, J., Vignoles, A. (2016) Family background and university success: Differences in higher education access and outcomes in England, Oxford University Press

university. Differences with private school students are even larger, with around 44% attending a Russell Group university, more than twice as many as attend *any* university at all among the poorest group.

The next columns of Table 1 then show rates of participation in postgraduate study. As might be expected given the large SES gaps in undergraduate participation, we also see large gaps in participation in postgraduate degrees. Just under one in every 25 state school students from the poorest 20% of families starts a postgraduate degree by the age of 30, compared to almost one in five of the richest 20% of state school students and more than one in four privately educated students. This suggests a slower rate of progression amongst the poorest students from undergraduate to postgraduate study: assuming all those who do a postgraduate degree have done an undergraduate degree, these numbers suggest that around 20% of the poorest students are progressing from an undergraduate to a postgraduate degree, while around 30% of the richest students do so.

The next three columns of Table 1 then look in more detail at the types of postgraduate degrees individuals take, separating out PGCEs, masters and PhDs (we also show masters and PhDs combined in the final column – noting that this does not equal the sum of the two previous columns because most people who do a PhD also hold a masters degree). We see important differences. Conditional on taking a postgraduate qualification, students from disadvantaged backgrounds are more likely than their wealthier counterparts to study for PGCEs, and less likely to study for a masters or PhD. As a result, participation gaps for PGCEs are much smaller than those we observe for masters or PhDs. It is also interesting to note that while private school students are much more likely to do a postgraduate course than even the richest quintile of state school students (27% vs 18%), they study for PGCEs at approximately the same rate, meaning they are quite a lot more likely to do masters and PhD courses.

4. Can the access gaps be explained by prior attainment?

We saw in Table 1 that students from more privileged background are much more likely to progress onto postgraduate study. The table suggests that prior attainment *might* be an important part of this story, as it shows that low SES individuals are also much less likely than high SES and privately educated students to do an undergraduate degree, and are even less likely attend one of the highly selective Russell Group universities.

In this section, we look at this channel more formally by estimating how much of the SES gap in postgraduate participation is due to differences in prior attainment arising earlier in the education system. We look at attainment from age 11 through GCSEs, A levels and undergraduate degree level. However before turning to these questions, we start by considering the gaps in access to undergraduate degrees in more detail.

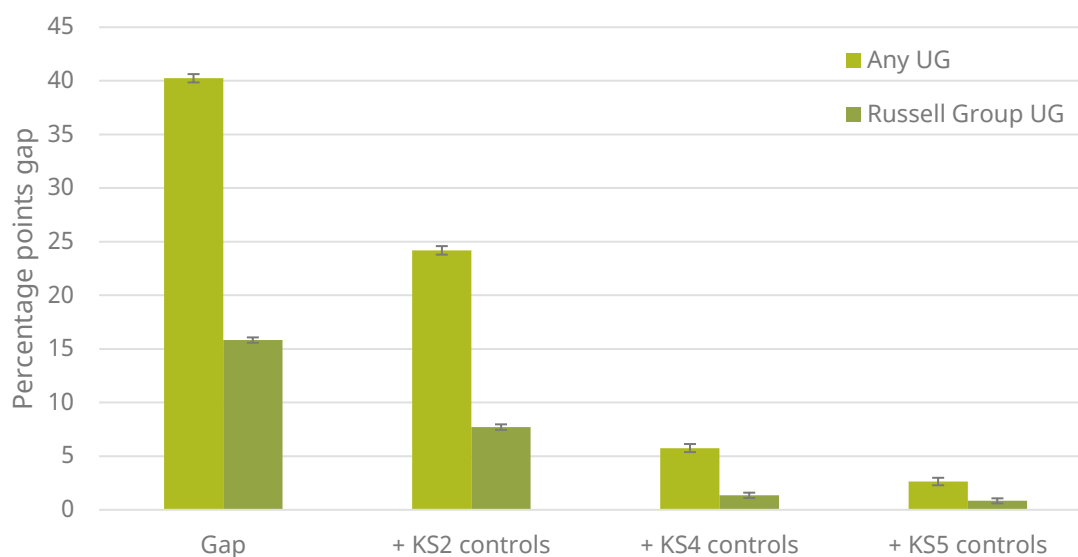
4.1 Access to undergraduate degrees

Figure 1 considers gaps in access to any first-degree undergraduate course (lighter green bars) and to first-degree undergraduate courses at Russell Group universities (darker green bars), which we use as a proxy for high-status, more selective universities. Due to the data limitations with the privately educated, we focus here on the difference in participation between the bottom and top 20% of state educated students.

The first bars shows the raw gaps in participation for the 2002 GCSE cohort between the richest 20% and the poorest 20% (state educated) students, and subsequent bars show the size of the gaps once prior attainment controls are included. This approach follows the method outlined in equation (1) but for undergraduate rather than postgraduate degrees, closely following Crawford et al. (2016). We show that there is a raw participation gap of 40 percentage points (ppts). This declines to 24ppts once we account for socio-economic gaps in KS2 (age 11) test scores, 6ppts once we control for differences in KS4 (GCSE) scores, and 3ppts once we control for KS5 (A level) scores. This suggests that the vast majority of socio-economic gaps in undergraduate participation are explained by prior attainment gaps which arise in school, although there is still a small but statistically significant gap at age 18.⁸

⁸ The findings here are slightly different from those in Crawford et al. (2016) which suggest slightly smaller initial gaps that reduce to zero with the inclusion of KS4 scores. We note, however, that they use a slightly different measure of socio-economic status. In addition, they use the 2008 GCSE cohort rather than the 2002 GCSE cohort and include additional controls for age 7 test scores in the controls (we also look at access to UG up to age 30 here, although that likely affects the results in the opposite direction).

Figure 1. Gap in access to undergraduate degrees, bottom vs top 20% of SES



Notes: Results for the 2002 GCSE cohort, using English state-school students only. SES is based on several measures combined into one continuous index, as described in more detail in Section 2. The first bar shows the raw percentage points gap in undergraduate attendance between those from the top and bottom 20% of parental SES. The KS2, KS4 and KS5 bars add controls for age 11, 16 and 18 test scores respectively. Undergraduate access is based on starting any first degree undergraduate degree course by age 30.

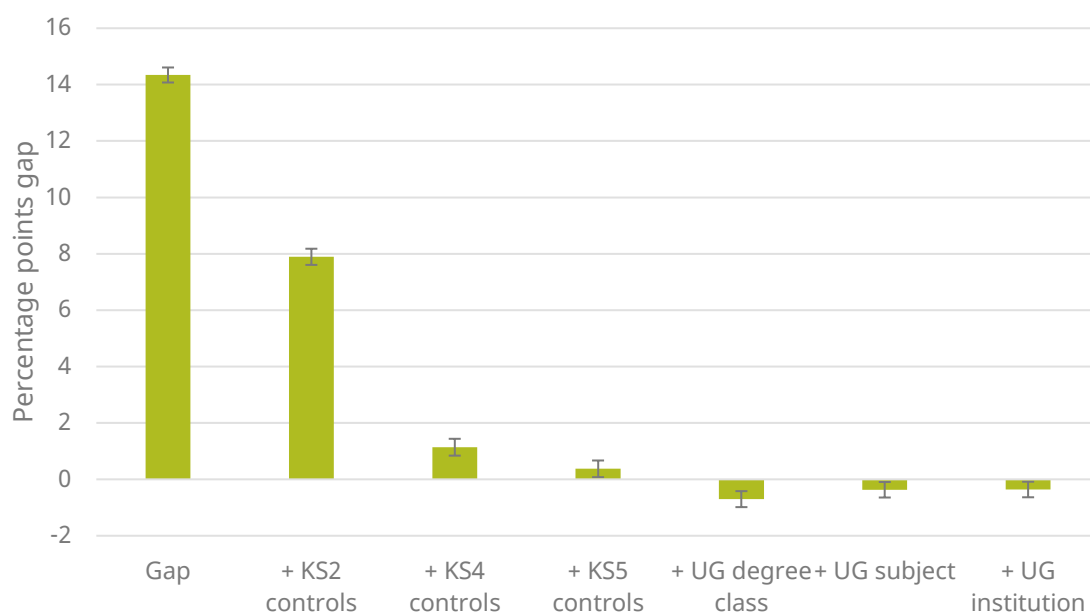
The darker green bars in Figure 1 show the equivalent estimates for access to Russell Group universities. We see a similar story, where the raw participation gap reduces by about half with the inclusion of controls for age 11 test scores, and they nearly disappear entirely once GCSE and A level controls are included. The interpretation of this that the gaps in undergraduate participation at Russell Group universities appear to be driven almost entirely by factors occurring earlier in the education system rather than the application process or financial barriers.

4.2 Access to postgraduate degrees

We now turn to investigating access to postgraduate degrees. Figure 2 shows the results from a similar decomposition of participation gaps to the one given above but for postgraduate participation. Estimation follows that outlined in equation (1).

The leftmost bar repeats the result from the Section 3, showing that participation is almost 15ppts higher for those coming from the wealthiest quintile of households (excluding the privately educated) than for those from the poorest quintile. The next bar shows that accounting for the differences in test scores at age 11 nearly halves this gap. Further accounting for differences in test scores at age 16, and again at 18, reduces the remaining gap considerably. Once we account for differences in undergraduate subject, university and degree class, the gap even reverses and students from the poorest families are marginally more likely to do postgraduate degrees.

This suggests that differences in prior attainment in school and undergraduate degrees can explain virtually all of the gap between the richest and poorest households in doing a postgraduate degree.

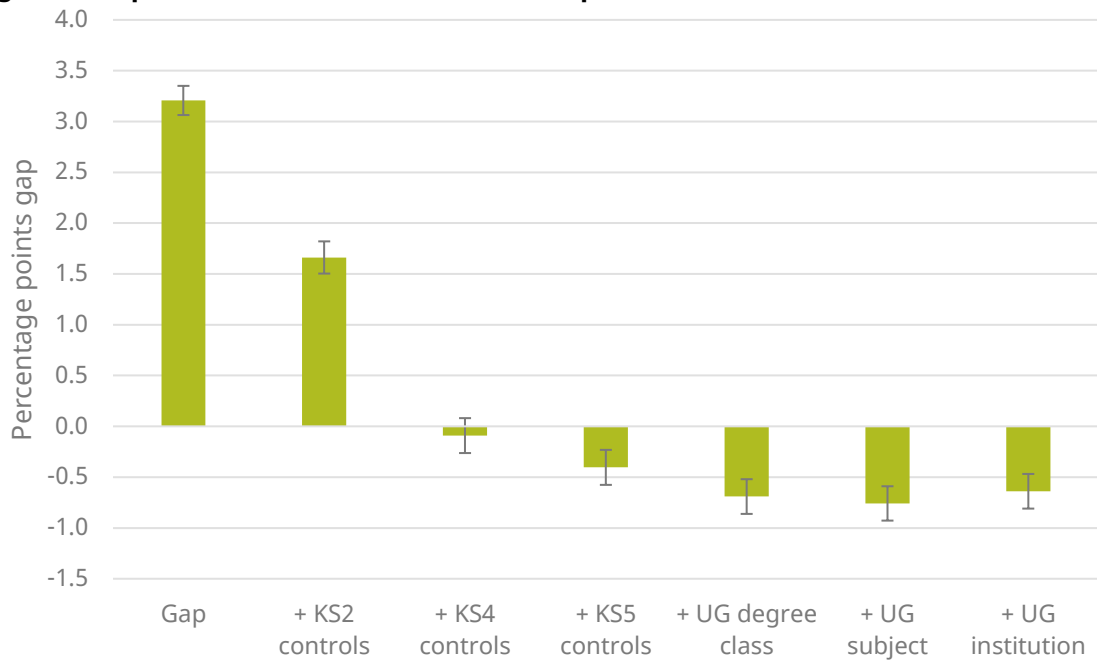
Figure 2. Gap in access to postgraduate degrees, bottom vs top 20% of SES

Notes: Results for the 2002 GCSE cohort, using English state-school students only. SES is based on several measures combined into one continuous index, as described in more detail in Section 2. The first bar shows the raw percentage points gap in undergraduate attendance between those from the top and bottom 20% of parental SES. The KS2, KS4 and KS5 bars add controls for age 11, 16 and 18 test scores respectively. Subsequent bars add controls for the degree class obtained at undergraduate level, controls for the subject studied at undergraduate level, and controls for the undergraduate institution attended respectively. Postgraduate access is based on starting any postgraduate course by age 30.

However, Figure 2 obscures potentially important differences in the *types* of postgraduate courses individuals are doing. Figures 3 and 4 therefore consider participation gaps for PGCE (Figure 3) and masters/PhD courses (Figure 4) separately (we do not have a sufficiently large sample to break out PhD students separately for this analysis).

Figure 3 shows that in raw terms, those from the poorest families are around 3 ppts less likely to do a PGCE qualification than those from the wealthiest families. That is, if you were to randomly select someone from the poorest 20% of households and randomly select someone from the richest 20% of households, the person from the richest 20% would be more likely to have obtained a PGCE. However, once we account for attainment up to age 18, this gap *reverses*. This means that those from less well-off families are *more* likely to do a PGCE course, conditional on having the same set of test scores up to age 18. Taking into account differences in undergraduate attainment further increases this gap, to more than half a percentage point. While this gap seems small, this is relative to a baseline of fewer than 3% of individuals from this cohort doing a PGCE.

Figure 3. Gap in access to PGCEs, bottom vs top 20% of SES

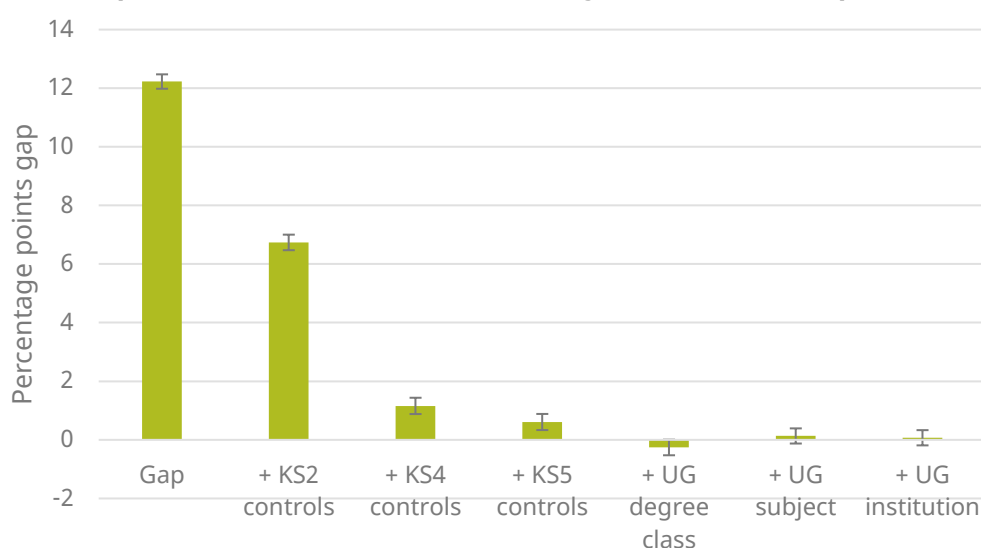


Notes: Results for the 2002 GCSE cohort, using English state-school students only. SES is based on several measures combined into one continuous index, as described in more detail in Section 2. The first bar shows the raw percentage points gap in undergraduate attendance between those from the top and bottom 20% of parental SES. The KS2, KS4 and KS5 bars add controls for age 11, 16 and 18 test scores respectively. Subsequent bars add controls for the degree class obtained at undergraduate level, controls for the subject studied at undergraduate level, and controls for the undergraduate institution attended respectively. Postgraduate access is based on starting any postgraduate course by age 30.

Figure 4 then considers the gap in participation for masters and PhD degrees combined. The raw gap is much larger in magnitude (12ppts vs 3ppts) than for PGCEs but is again reduced dramatically by our controls for prior attainment. Including differences in undergraduate attainment reduces this gap to exactly zero.

This shows that the gaps in masters and PhD participation are *entirely* explained by prior attainment. This result is perhaps surprising given the headline fees charged for these courses and the lack of financial support available from government during this period. It could be that many of the students who want to access postgraduate study are able to access financial support through grants from research councils or direct from the university, or that they are borrowing privately to attend.

Of course, this analysis does not inform us about more recent gaps in access, which may have been affected by changes to postgraduate education since then, notably the introduction of the government's new loans for postgraduate students in 2015/16.

Figure 4. Gap in access to PhDs and masters degrees, bottom vs top 20% of SES

Notes: Results for the 2002 GCSE cohort, using English state-school students only. SES is based on several measures combined into one continuous index, as described in more detail in Section 2. The first bar shows the raw percentage points gap in undergraduate attendance between those from the top and bottom 20% of parental SES. The KS2, KS4 and KS5 bars add controls for age 11, 16 and 18 test scores respectively. Subsequent bars add controls for the degree class obtained at undergraduate level, controls for the subject studied at undergraduate level, and controls for the undergraduate institution attended respectively. Postgraduate access is based on starting any postgraduate course by age 30.

4.3 Other access gaps we have investigated

We find that our results are robust to several additional specifications. That is, once we control for the full set of information on prior attainment, the gaps that remain are economically very small and usually statistically insignificantly different to zero. We outline a few examples below:

i. Gaps in access between private and state educated pupils

The above focus is on state-educated pupils, but it is possible that the important participation gaps are between the privately educated and the state educated. A key drawback for the privately educated students is that we do not have any age 11 attainment data for many of them. However, even with this limitation, we find that the story is extremely similar when we look at the gaps in (any) postgraduate study between the privately educated and the poorest 20% of state educated students. While the raw gaps in participation are larger, they also virtually disappear once GCSEs and A levels are controlled for and even somewhat reverse once university attainment is taken into account.

ii. Gaps in access between mid-SES and high SES students

We also considered the possibility that there are significant gaps in (any) postgraduate study between the richest students and the slightly less deprived. For example, it is possible that the poorest students find it easier to access financial support from universities, while middle-income students struggle to access grants but still cannot afford

to pay the postgraduate fees. However, we again find that once attainment up to university is controlled for, mid-SES students are equally or even more likely to study for a postgraduate degree than the richest 20% of state school students.

iii. Gaps in access to high returning subjects

Finally, although there are no gaps in overall participation once we allow for prior attainment, it is possible that there are important gaps once you focus in on a subset of courses. We consider access gaps to high-returning masters subjects, drawing on the estimated returns to different subject areas reported in Britton et al (2020).⁹ Once again, however, we find that the remaining gaps once we control for prior attainment entirely disappear.

iv. Gaps in access among more recent cohorts

The above analysis focussed on access to postgraduate qualifications up to age 30 as it is not uncommon for individuals to take postgraduate qualifications in their mid to late twenties. The drawback of this is that it restricts us to looking at a cohort who took their GCSEs in 2002, and access trends may have changed among more recent cohorts. We have therefore also estimated access gaps at age 25, and how much of these can be explained by SES gaps in prior attainment, for the cohort who took their GCSEs in 2007. Results are shown in the Appendix. In line with increases to postgraduate participation over time, overall rates of postgraduate participation at age 25 are higher than among the 2002 GCSE cohort at the same age. Patterns of participation across SES groups are however very similar. As for the 2002 GCSE cohort, nearly all of the gaps in access can be traced back to SES gaps in prior attainment earlier in individual's educational careers.

⁹ We define a "high-returning" subject as the ten Master's subjects with the highest returns (defined for men and women separately). For both genders this includes business, chemistry, economics, engineering, law, maths, physics and technology, and additionally includes physical sciences and veterinary sciences for men, and computing and politics for women. The average earnings return at age 35 across this set of subjects is around 6% for men and 12% for women.

5. Conclusion

This Briefing Note considers gaps in access to postgraduate study. It focusses on the cohort of students who took their GCSE exams in 2002, which means those who obtained an undergraduate degree typically graduated between 2007 and 2009. The majority of our data therefore looks at postgraduate entry in around 2007-2010, although we look at postgraduate entry right up to age 30 to capture the fact that the transition from undergraduate study is often not immediate.

We show that while there are large gaps in postgraduate participation between those who grew up in poorer and richer households, these gaps are almost entirely explained by attainment up to the point of making the decision about whether to go to postgraduate study.

This suggests that the gaps in participation are not driven by lack of access to funds, but rather by things that happen earlier in the education system. The vast majority of the gaps can be explained by attainment at age 16, and almost all by attainment at 18. In fact we even see evidence that the signs flip once attainment at university is included, suggesting that poorer students are marginally *more* likely to go on to postgraduate study, conditional on attainment by the end of undergraduate study.

The result is remarkably robust to different specifications and subpopulations. The story is the same when we focus on gaps between the poorest students and the privately educated, and between middle-income and the richest students. It also holds when we look specifically at access to high returning masters such as economics, law and business.

This creates something of a puzzle. Why are the sometimes extremely large fees not generating barriers to access? One potential explanation is that there are enough grants available to cover the very few pupils from poor families who currently achieve adequate attainment. If more of these students were to achieve the requisite attainment and desire to take a postgraduate degree, funding might become more of a barrier. Another potential explanation is that we may not be focussing in specifically enough on the really expensive courses. Future work should investigate these issues.

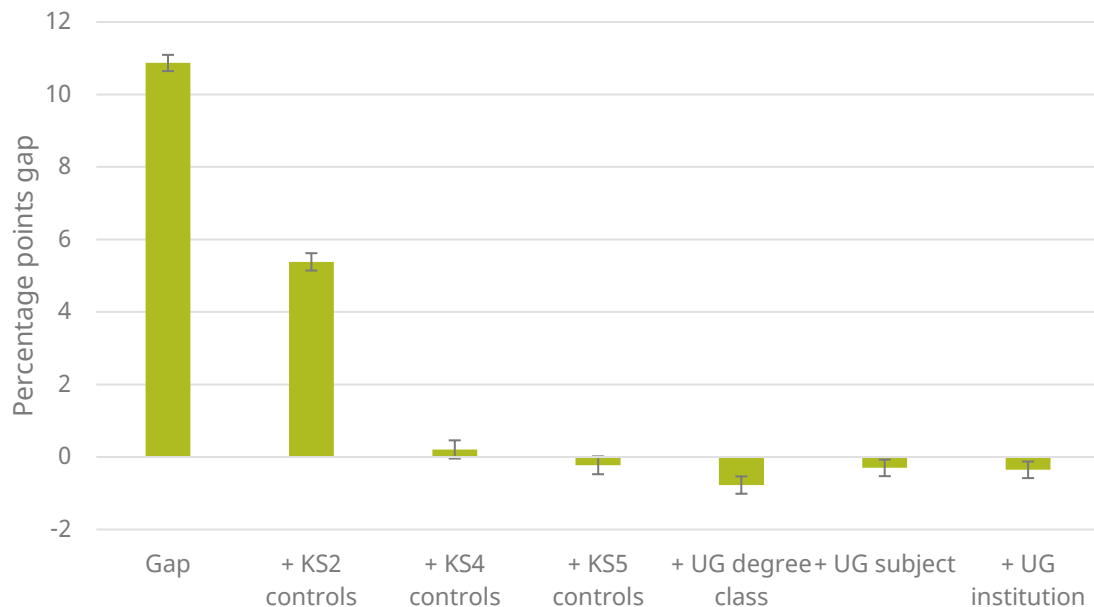
6. Appendix

Table 2. Participation rates by SES – age 25, 2007 GCSE cohort

	UG	Russell Group UG	Any PG	PGCE	Masters	PhD	Masters or PhD
SES Q1 (bottom)	20.6%	1.8%	3.1%	0.8%	2.4%	0.2%	2.4%
SES Q2	29.3%	3.5%	4.9%	1.3%	3.7%	0.3%	3.8%
SES Q3	36.9%	5.6%	7.0%	1.8%	5.3%	0.6%	5.4%
SES Q4	45.1%	9.3%	9.7%	2.2%	7.6%	0.9%	7.8%
SES Q5 (top)	58.2%	17.1%	14.0%	2.7%	11.5%	1.3%	11.8%
Private school	79.4%	41.5%	21.3%	2.7%	18.9%	1.8%	19.2%
Population	40.9%	9.8%	8.7%	1.8%	7.0%	0.7%	7.1%

Notes: Undergraduate and postgraduate participation rates for the 2007 GCSE cohort. Undergraduate access is based on first degree level. SES is based on several measures of deprivation combined into one continuous index, and is based on state educated students only. Each column shows the percentage of each SES quintile and privately educated students who have started the degree listed in the column title by age 25. These participation rates also include individuals who start, but do not graduate from, a degree. The Masters or PhD column shows individuals who have started a masters degree and/or a PhD (most, but not all of those who start a PhD have previously done a masters).

Figure 5. Gap in access to postgraduate degrees, bottom vs top 20% of SES



Notes: Results for the 2007 GCSE cohort, using English state-school students only. SES is based on several measures combined into one continuous index, as described in more detail in Section 2. The first bar shows the raw percentage points gap in undergraduate attendance between those from the top and bottom 20% of parental SES. The KS2, KS4 and KS5 bars add controls for age 11, 16 and 18 test scores respectively. Subsequent bars add controls for the degree class obtained at undergraduate level, controls for the subject studied at undergraduate level, and controls for the undergraduate institution attended respectively. Postgraduate access is based on starting any postgraduate course by age 25.