



Data analysis
July 2016/14

Transitions into postgraduate study

Trends for one, three and five-year transition periods for 2002-03 to 2013-14 qualifiers

This report looks at transitions from first degree qualification from English HEIs to postgraduate study. It considers students' first instance of postgraduate enrolment and looks at trends across one-year, three-year and five-year transition periods. Multiple instances of postgraduate study are also considered, focusing on the route taken to reach graduates' highest level of postgraduate study.

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Transitions into postgraduate study

Trends for one, three and five-year transition periods for 2002-03 to 2013-14 qualifiers

To	Heads of HEFCE-funded higher education institutions
Of interest to those responsible for	Student opportunity, Planning, Widening participation, Postgraduate taught and research courses, Admissions tutors, Postgraduate education practitioners
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Executive summary

Purpose

1. This report looks at transitions from first degree qualification to postgraduate study. It considers students' first instance of postgraduate (PG) enrolment and looks at trends across one-year, three-year and five-year transition periods. Multiple instances of PG study are also considered, focusing on the route taken to reach graduates' highest level of PG study. Trends are examined for qualifiers from 2002-03 to 2013-14, and split by various characteristics and subject areas.
2. This analysis updates and extends the work presented in 'Trends in transition from first degree to postgraduate study' (HEFCE 2013/13). It is published alongside a set of interactive data and graphs which allow the reader to explore in more detail some of the trends discussed here. These can be found on the HEFCE website at www.hefce.ac.uk/analysis/pgstransition.
3. The report analyses entry into three levels of postgraduate study: postgraduate research (PGR); postgraduate taught (PGT) and other postgraduate (OPG). Broadly, PGR includes PhDs and research based masters degrees; PGT includes taught masters degrees; and OPG includes postgraduate certificates and diplomas (including Postgraduate Certificates of Education (PGCEs¹)) and institutional credit.

Key findings

Overall transition rates to postgraduate study have fallen over the last decade, although transition to PGT courses has seen a slight increase

4. The rate of one-year transition into any PG course fell between 2002-03 qualifiers and 2013-14 qualifiers, from 13.0 per cent to 11.5 per cent. This was, in part, due to a fall in the rates of transitions to OPG. The rate of transitions into PGT was 6.5 per cent for 2013-14 qualifiers, which is a small increase on the 6.1 per cent rate for 2002-03 qualifiers, but a decline from the peak of 8.3 per cent for 2008-09 qualifiers. The rate of transition into PGR has remained broadly constant and was 1.5 per cent in for 2013-14 qualifiers.

¹ This does not include Professional Graduate Certificates in Education.

Disadvantaged students are less likely to undertake postgraduate study

5. First degree qualifiers from the highest participation areas according to the Participation of Local Areas (POLAR) measure (POLAR quintile 5) were more likely to go into PGT and PGR study than those from the lowest participation areas (POLAR quintile 1). For 2013-14 qualifiers, the one-year transition rate to PGT was 7.5 per cent for quintile 5 students compared with 5.3 per cent for quintile 1 students. The rates into PGR were 1.6 per cent compared with 1.3 per cent. The difference between these groups has grown since 2002-03, as quintile 1 graduates have become less likely to transition into either PGT or PGR. This remains the case when looking at the proportions in PG study three or five years after graduation. It means that those least likely to go into higher education in the first place were also least likely to transition to PGR or PGT study, even after a break in study.

Black and minority ethnic students have higher transition rates to postgraduate taught courses

6. Black and minority ethnic (BME) graduates were more likely than White graduates to go into PGT study immediately after graduating, and also more likely to return to PGT study after a break. However, the difference between these groups has narrowed over time. One-year transition for 2002-03 qualifiers was 9.0 per cent for BME qualifiers and 5.6 per cent for White graduates, but by 2013-14 it was 7.1 per cent and 6.3 per cent respectively.

7. Conversely, White graduates were more likely to immediately enter PGR study than BME students, with 1.7 per cent versus 1.0 per cent for 2013-14 qualifiers. This continues to be true when allowing for a break in study and also when looking at different routes to PGR study. Despite BME qualifiers being more likely to transition to PGT study, they were less likely to transition to PGR via PGT. White qualifiers had higher transition rates to PGR both directly and via PGT routes, with transition to PGR via PGT at 0.8 per cent for BME students and 1.3 per cent for White students among 2009-10 qualifiers.

A gender gap persists in postgraduate study

8. Male graduates were more likely to progress into PGR study than female graduates. There were 2.1 per cent of male graduates studying at PGR level in the year after graduation, compared with only 1.0 per cent of female graduates in 2013-14. In part this is due to the proportion of male students studying science, technology, engineering and mathematics (STEM) subjects at undergraduate level, as it is more likely that STEM graduates will proceed to PGR study. However, male graduates are also more likely both to return to do PGR after a break in study and to enter PGR after studying at PGT level.

9. Male graduates were also more likely to enter PGT study than their female counterparts. 7.1 per cent of male graduates in 2013-14 entered PGT study in the year after graduation, compared with 6.1 per cent. However, unlike for PGR transition rates, the difference between male and female transition rates is smaller once breaks in study are allowed for, as female graduates are more likely to return later to study PGT.

10. Female graduates were typically twice more likely to go onto OPG study (which includes PGCEs) than male graduates, and continued to be more likely to transition to OPG even after a break in study.

Uptake of postgraduate study differs greatly by subject

11. The highest transition rates to PGR are in STEM subjects, regardless of the transition period: specifically in chemistry and material sciences, and physics and astronomy, which have five-year transition rates of 24.5 per cent and 24.1 per cent respectively among 2009-10 graduates.

12. The highest rates of transition to PGR via PGT are also in STEM subjects. However, relative to the direct PGR transition rates, subjects in arts, humanities and social sciences rely much more on PGT as a stepping stone to PGR study.

13. Graduates across all subject areas undertake OPG study, partly because some subjects require professional qualifications for practice, but mostly because of the number of graduates undertaking OPG in education. Rates of transition to OPG in education were particularly high for sports science at 13.5 per cent, mathematical science at 12.5 per cent and European modern languages at 13.4 per cent.

Action required

14. This document is for information only.

Introduction

15. This report analyses the transition of first degree qualifiers into postgraduate (PG) study in England. Understanding the entry of students into postgraduate study has become of increasing interest in recent years following the introduction of higher undergraduate tuition fees and the subsequent development of a postgraduate loans system. However, the transition between undergraduate and postgraduate study is less well understood, and this report seeks to address this.

16. This is the second HEFCE report on postgraduate transitions. The first was 'Trends in transition from first degree to postgraduate study' (HEFCE 2013/13), which looked at the first instance of transition into PG study across various student and course characteristics². This report updates previous analysis to include the latest student data, and then extends it by considering transitions after three and five years, to analyse the behaviour of graduates returning to higher education after a break. It also analyses multiple transitions through different levels of PG study.

17. The analysis uses Higher Education Statistics Agency (HESA) data for students qualifying between 2002-03 and 2013-14. It does not present findings relating to the transitions of students under the 2012-13 undergraduate funding regime, as data for the majority of these graduates will not be available until 2017. However, the initial intentions of these students are examined by HEFCE as part of the analysis of the Intentions After Graduation Survey³.

18. Interactive tables and graphs accompany this report, which allow the reader to explore in more detail some of the trends discussed here. These can be found on the HEFCE website at www.hefce.ac.uk/analysis/pgstransition.

Methodology

19. Using HESA student datasets for the academic years 2002-03 to 2014-15, the full-time first degree qualifying population was linked to the entering postgraduate population for each of the five years following graduation (or as many years as possible up to five years) – see Annex B for more discussion on the linking methodology. Transition rates were calculated by dividing the number of qualifiers found in postgraduate study by the number of full-time first degree qualifiers at English higher education institutions (HEIs).

20. The one-year transition time series includes graduating cohorts from 2002-03 to 2013-14, since postgraduate entering data is not yet available for those graduating in 2014-15. Hence the five-year transition time series (which considers the effect of a break in study before the first instance of PG) and routes to the highest level of PG study, runs from 2002-03 to 2009-10. Comparisons between the one-year, three-year and five-year transition periods are made for 2009-10 qualifiers for this reason.

² Available online at www.hefce.ac.uk/pubs/year/2013/201313/.

³ See www.hefce.ac.uk/analysis/Overview/ for details of the most recent HEFCE analyses of the Intentions After Graduation Survey.

Postgraduate levels

21. Definitions of postgraduate levels used in this report differ slightly from those definitions used in HEFCE 2013/13 (see Annex A for more information on the differences between the two definitions). This analysis brings the groupings in line with the HESA six-way grouping of levels of study to simplify the methodology⁴. The PG groupings remain labelled as: postgraduate research (PGR), postgraduate taught (PGT) and other postgraduate (OPG).

22. When considering multiple instances of PG over a five-year period, the groupings are based on the route the student takes to their highest level of postgraduate study. The groupings are as follows:

- transition directly into postgraduate research (PGR direct)
- transition to postgraduate research via postgraduate taught (PGR via PGT)
- transition to postgraduate research via postgraduate other (PGR via OPG)
- transition directly into postgraduate taught (PGT direct)
- transition to postgraduate taught via other postgraduate (PGT via OPG)
- transition directly into other postgraduate (OPG direct).

Population

23. This analysis has been carried out for full-time qualifiers at English HEIs graduating at first degree level only. Different domiciles and age groups have been considered and the graphs and tables relating to these can all be found in the interactive pages published alongside this report. However, throughout this report, the population being considered will be young UK-domiciled qualifiers and, unless otherwise stated, the data in all figures and tables is for this standard population.

24. For the purposes of this report, students graduating from an integrated masters programme are classed as graduating with a first degree and included in the undergraduate (UG) population.

Population overview

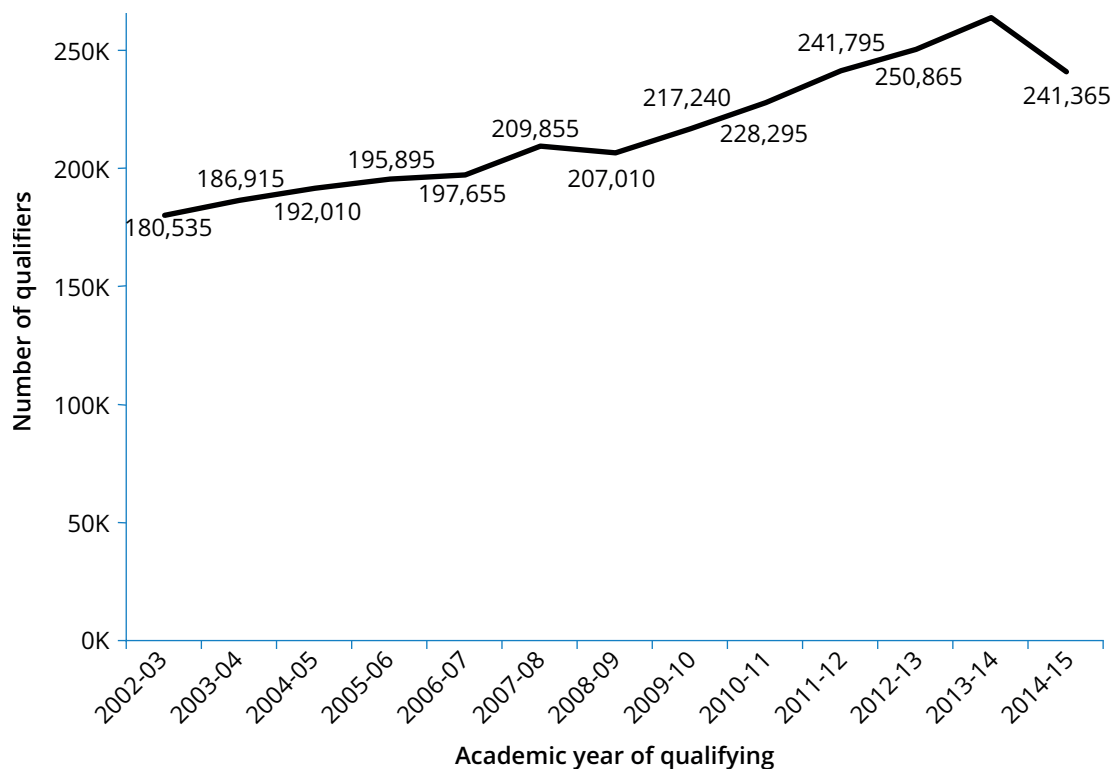
25. This section of the report first considers the overall trends for full-time first degree UK qualifiers and entering postgraduates between 2002-03 and 2014-15 among students at English HEIs. Then it presents transition rates for one-year, three-year and five-year transition periods for different PG levels using the students' first instances of PG enrolment. Finally, multiple transitions to PG within a five-year period are considered and grouped into routes using their highest level of PG.

26. Figure 1 shows the number of first degree qualifiers between 2002-03 and 2014-15. The number of students qualifying has broadly increased across the time series until 2013-14, with an increase of 28 per cent between 2008-09 and 2013-14.

⁴The derived field XLEV601 was used to identify levels of postgraduate study. Further details of the derived field can be found in the zip file 'C14051.zip', available for download at https://www.hesa.ac.uk/C14051/Derived_field_specifications.

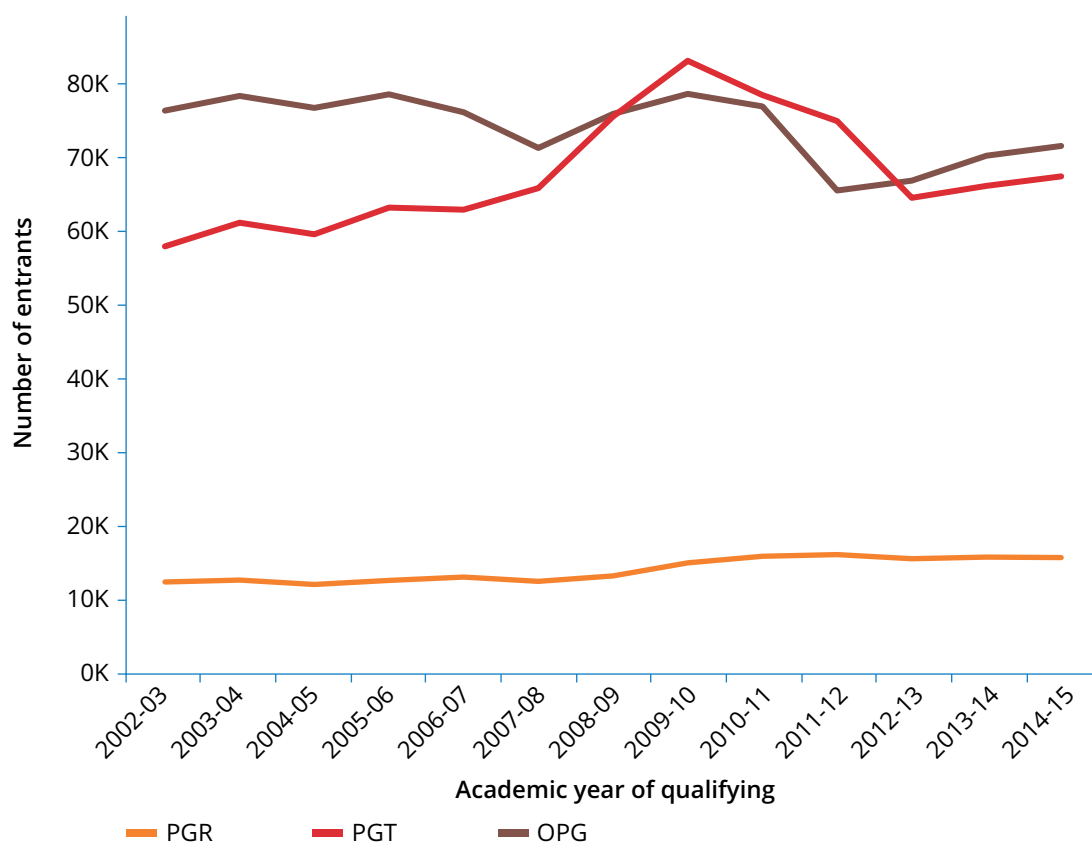
The following year (2014-15) saw a decrease in qualifiers. This is a transient effect and relates to the first cohort affected by the undergraduate fee increases introduced in 2012-13. The decrease in student numbers is because a number of students who might otherwise have chosen to defer their entry, therefore entering in 2014-15 rather than 2013-14, chose not to do so to avoid paying the higher tuition fees.

Figure 1 Number of first degree qualifiers between 2002-03 and 2013-14 (all ages)



27. Figure 2 shows the number of PG entrants to courses between 2002-03 and 2014-15. This shows that the number of PGR students has continued to increase steadily across the time series. Enrolment on PGT courses has seen a rise across the time series (16 per cent between 2002-03 and 2014-15), with a particular increase between 2007-08 and 2009-10. This is likely to be partly due to the economic climate, as the UK was in recession during this period. A similar pattern of increase around 2008-09 can be seen in the number of students entering OPG, although it is not as marked as for those entering PGT. However, OPG has seen an overall decline over the time series, with a percentage drop of 6 per cent between 2002-03 and 2014-15.

Figure 2 Number of UK domiciled entrants to PG courses at English HEIs between 2002-03 and 2014-15 split by PG level (all ages)



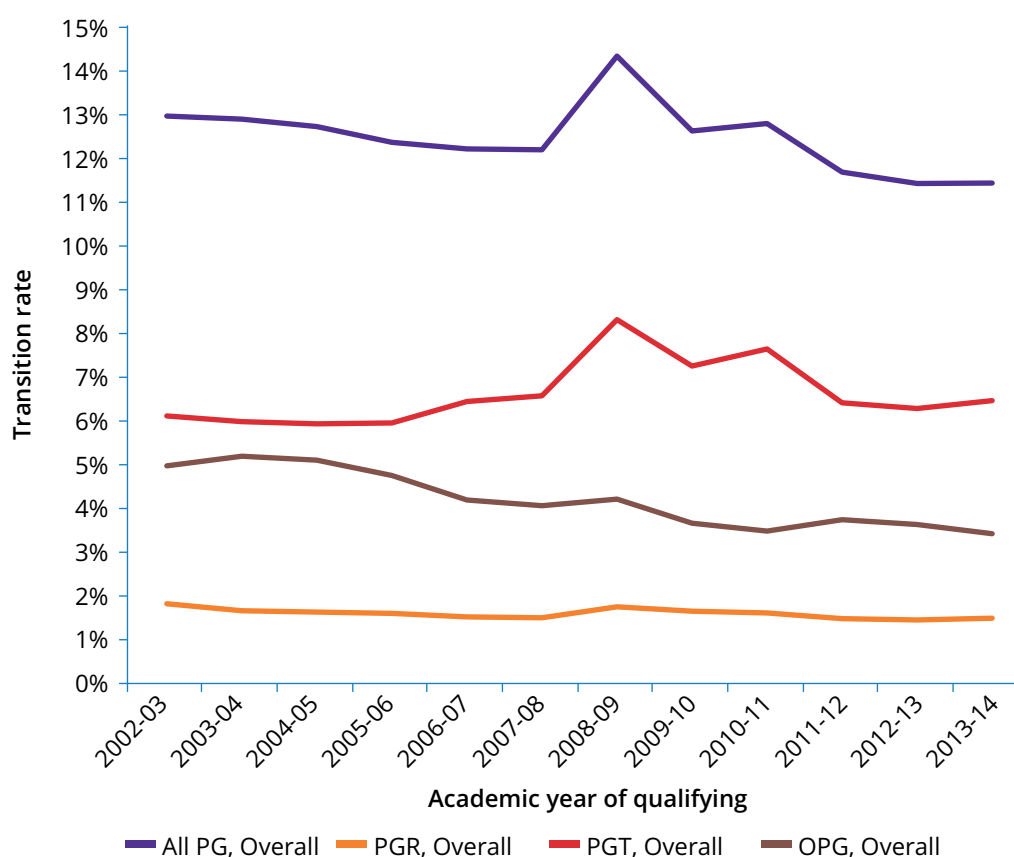
First transitions

28. Figure 3 shows the one-year transition rates of qualifiers, split by level of postgraduate study. It also shows the overall transition rate to any level of PG study. From this it can be seen that, overall, one-year transition rates have decreased from 12.7 per cent of qualifiers in 2002-03 to 11.1 per cent in 2013-14. This same trend was seen in OPG study, with a decrease of 1.5 percentage points across the time series. PGR has also seen a slight decline in one-year transition rates. The exception to this was PGT, where transition rates have increased by 0.3 percentage points across the time series.

Overall transition rates to postgraduate study have fallen over the last decade, although transition to postgraduate taught courses has seen a slight increase.

29. All levels of PG study saw an increase in transition rates between 2007-08 and 2008-09 qualifiers. This is likely to be because the UK was in recession at this time, encouraging more students to continue straight onto PG study after graduation, rather than due to difficulty in finding work. This increase was seen most clearly in the one-year transition rates to PGT, and seems to affect transition until the 2011-12 qualifier cohort.

Figure 3 One-year first transition rates of qualifiers to PG courses between 2002-03 and 2013-14 split by level and PG study



30. Transition rates have been calculated for one, three and five-year transition periods. The latest year of qualifiers available for all three time series is 2009-10, and Table 1 presents the rates for young full-time UK students at English HEIs. This shows that the highest transition rates were seen in those entering PGT study, with this remaining the case across the transition periods. It also shows that for PGR and PGT study, the highest proportion of students transitioned in the year after graduation, while for OPG study a higher proportion of students took a break in study than entered directly.

The difference between one-year and five-year transition rates is highest for transitions to other postgraduate study.

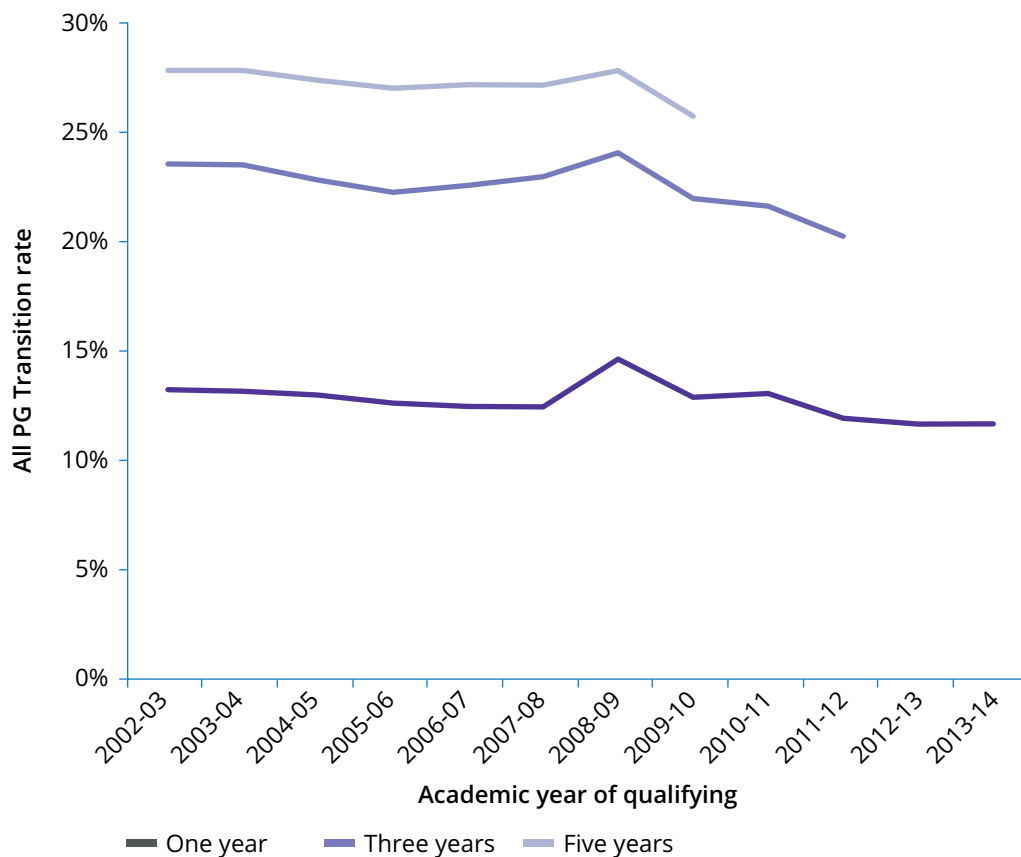
Table 1 One, three and five-year first transition rates by PG level for qualifiers in 2009-10

Transition period	Total qualifiers	PGR rate	PGT rate	OPG rate
One year	175,380	1.7%	7.3%	3.7%
Three years	175,380	2.1%	11.5%	7.9%
Five years	175,380	2.2%	13.1%	9.9%

31. Figure 4 shows the overall transition rates for one, three and five-year transition periods. Each line is the total proportion of students who have transitioned by that number of years after graduation. Since the lines for three years and five years after graduation include the students transitioning immediately after graduation, trends from the one-year transition rates can also be seen in the three and five-year transition rates. The main example of this is the increase in transitions in 2008-09, likely due to the economic recession. While this trend is seen in all three of the lines, the sharpness of this increase drops as the time periods increase, indicating that the large impact of the recession on immediate transitions did not equate to a large impact on the total number of qualifiers transitioning when allowing for a break in study. In other words, this implies that graduates brought forward their PG study intentions because of the financial crisis.

32. For every year, the percentage difference between transition one year and three years after graduation is smaller than the transition rate for those going on to PG study immediately. This means that students are most likely to transition in the year immediately after graduation. The difference in transition rates was higher when comparing one-year transition rates with three-year transition rates than when comparing three-year transition rates with five-year transition rates. This means that students taking a break from study were more likely to take a one or two-year break than a three or four-year break.

Figure 4 First transition rates of qualifiers to PG courses between 2002-03 and 2013-14 by number of years given to transition



Multiple transitions

33. Considering first transitions only may mask the proportion of undergraduates who intended to study at a higher level of PG, and required multiple PG instances to reach this goal. For this reason we have extended the analysis to consider multiple transitions and routes to highest levels of PG study across a five-year period. Hence the latest available data is for 2009-10 qualifiers.

34. Table 2 presents transition rates by type of transition. This groups the transition route to the highest level of PG (with a hierarchy of PGR, PGT, then OPG). This shows that direct transition routes into all levels of study (PGR, PGT and OPG) remain the most popular. However, around a third of PGR transition (five years after graduation) comes from those initially entering PGT and then transitioning to PGR.

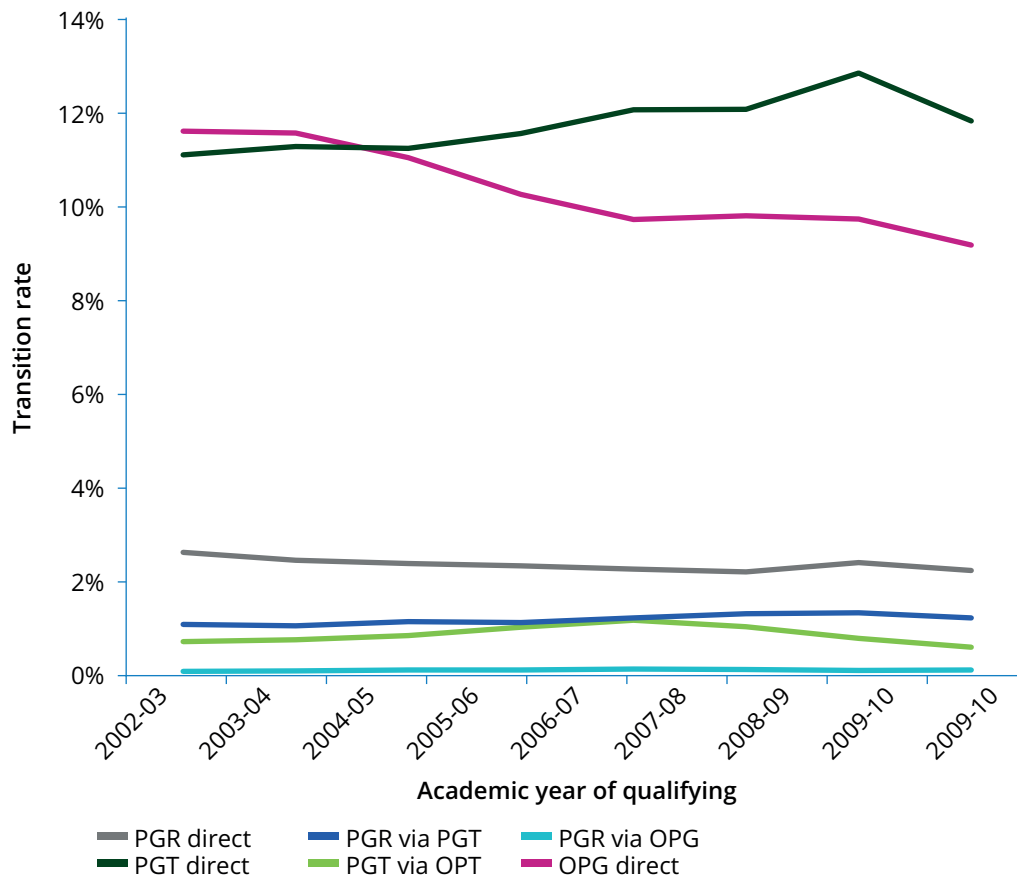
Table 2 **Five-year multiple transition rates by transition type for 2009-10 qualifiers**

Multiple transition type	Transition rate
PGR direct	2.2%
PGR via PGT	1.2%
PGR via OPG	0.1%
PGT direct	11.9%
PGT via OPG	0.6%
OPG direct	9.2%
Total transition rate	25.2%

35. Figure 5 shows the time series (for different graduating cohorts) for the multiple transition rates by transition type. The direct transition trends broadly replicate those seen previously for first transitions (see Figure 3) with PGT transition increasing over time, and PGR and OPG transition decreasing. Furthermore, since PGR transition via PGT increased over the time series, the importance of the PGT to PGR route has increased from 29 per cent to 34 per cent as a proportion of the flow into PGR study.

The proportion of graduates using postgraduate taught study as a stepping stone to postgraduate research has increased.

Figure 5 Five-year multiple transition rates of qualifiers to PG courses between 2002-03 and 2009-10 by route to highest level of PG



Equality and diversity characteristics

36. This section presents other key findings, including any key differences between the different transition periods for student characteristics and any additional findings when multiple transitions are considered.

37. The interactive graphs and tables that have been published alongside this report allow the reader to explore the underlying data in more depth.

38. In this report transition rates to postgraduate study are considered by the following student characteristics:

- age on UG entry
- disability
- ethnicity
- Participation of Local Areas (POLAR) quintile
- sex.

39. In addition to the characteristics described here, the following are available as primary or secondary characteristics in the interactive graphs and tables: enhanced degree, fee state, institution type, and UG degree classification.

40. For the following graphs and tables (with the exception of the 'Age' section), the population has been reduced to young, UK-domiciled students at English HEIs. However, the interactive graphs and tables allow the reader to also consider these same graphs and tables for mature learners, and for students who are domiciled elsewhere in and outside the European Union (EU).

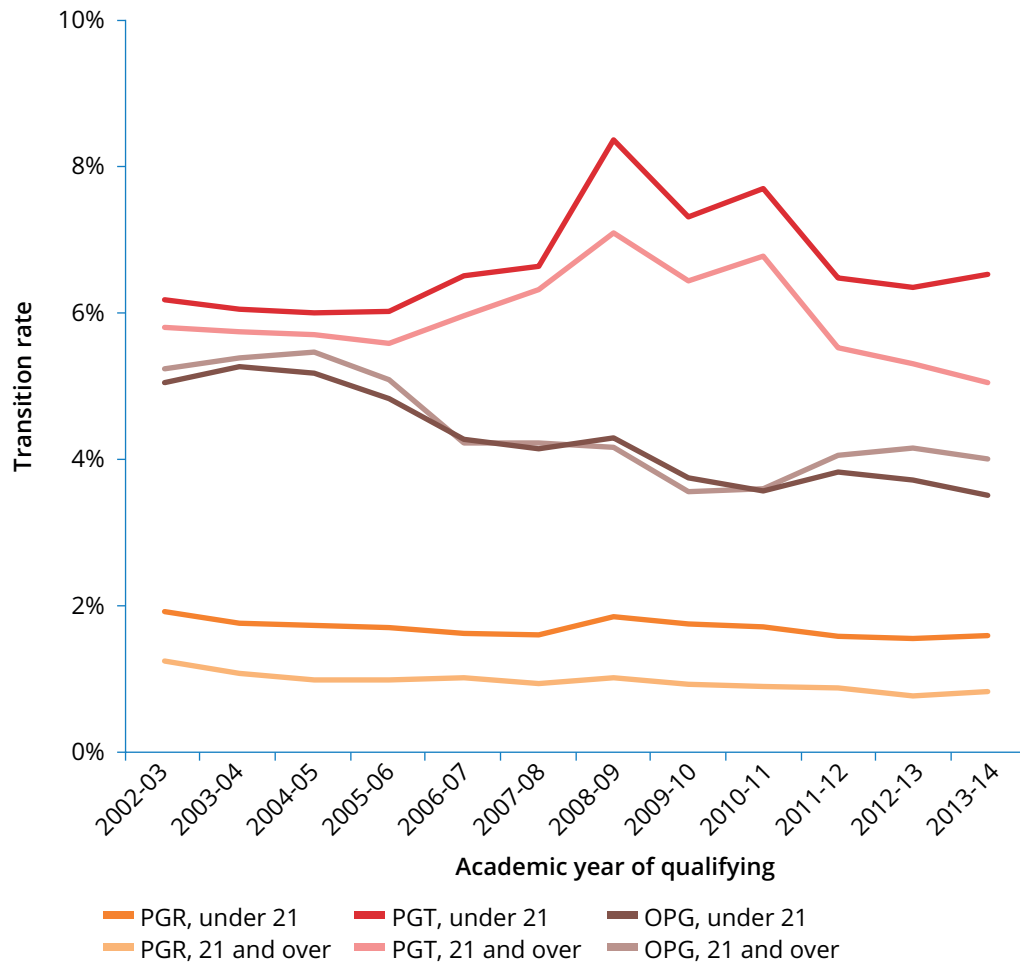
Age

41. Figure 6 shows that young qualifiers continued to have higher transition rates than mature qualifiers to PGR and PGT study between 2002-03 and 2013-14⁵. The difference in transition rates to PGT has widened significantly, with mature learners becoming less likely to transition to this level of PG study. The difference increased during the recession and in more recent years, with a difference of only 0.3 percentage points for 2007-08 qualifiers widening to 1.5 percentage points for 2013-14 qualifiers. In the most recent years mature learners have become more likely to transition to OPG study than young learners; this difference first occurred in 2010-11 and continued to widen up to the end of the time series.

One-year transition rates of mature qualifiers to postgraduate taught courses have declined across the time series.

⁵ Young qualifiers are defined in this report as those under 21 at the start of their undergraduate course. Those 21 and over are mature qualifiers.

Figure 6 One-year transition rates of qualifiers to PG courses between 2002-03 and 2013-14 split by level of PG study and age



42. Table 3 shows the three-year and five-year transition rates and that younger learners were more likely to go into PGT study even after a break. For 2009-10 qualifiers, the difference between young and mature learners was 0.9 percentage points for one-year transition, but increased to 1.6 percentage points for three-year and five-year transition.

Table 3 Transition rates of qualifiers to PG courses in 2009-10, split by transition period, level of PG study and age group

Transition period	Age on UG entry	Qualifiers in group	PGR rate	PGT rate	OPG rate
One year	Under 21 (young)	175,380	1.7%	7.3%	3.7%
	21 and over (mature)	41,855	0.9%	6.4%	3.5%
Percentage difference			0.8%	0.9%	0.2%
Three years	Under 21 (young)	175,380	2.1%	11.5%	7.9%
	21 and over (mature)	41,855	1.2%	9.9%	7.5%
Percentage difference			0.9%	1.6%	0.4%
Five years	Under 21 (young)	175,380	2.2%	13.1%	9.9%
	21 and over (mature)	41,855	1.3%	11.5%	9.9%
Percentage difference			0.9%	1.6%	0.0%
Total qualifiers		217,240			

Note: Students whose age is unknown have been excluded from the table but included in the total.

43. Table 3 also shows that young learners were more likely to transition to PGR study than mature learners across all the transition periods (by just under one percentage point for each transition period). One reason for this difference was the number of young learners undertaking enhanced degrees.

Mature qualifiers are less likely to go into postgraduate research after a break in study than young qualifiers.

Enhanced degrees

44. Taking an enhanced degree (also known as an 'integrated masters degree') means a student qualifies with a masters level qualification, putting them in a much better position to enter PGR study directly. Table 4 shows that 5.5 per cent of all the young students qualifying in 2013-14 studied enhanced degrees, compared with only 2.1 per cent of mature learners. In terms of student numbers, this was over 10 times as many young students as mature students. Enhanced degree transition rates were significantly higher than those for traditional degrees across both age groups, but mature transition remained lower than young transition for both types of degree.

Table 4 **One-year transition rates of 2013-14 qualifiers, split by age on UG entry and degree type**

Age on UG entry	Degree type	Qualifiers in group	PGR rate	PGT rate	OPG rate
Under 21 (young)	Enhanced	11,780	13.4%	1.9%	2.6%
	Traditional	204,060	0.8%	6.8%	3.5%
21 and over (mature)	Enhanced	1,035	6.1%	-	2.7%
	Traditional	47,425	0.6%	5.1%	4.0%
Total qualifiers		264,300			

Note: Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Degree classification

45. Table 5 shows the one-year transition rates of full-time first degree qualifiers at English HEIs, split by age on UG entry and first degree classification. This shows that attainment at UG level did not fully explain the higher PG transition rates for younger learners. Despite a higher proportion of mature learners attaining a first (21.5 per cent compared with 20.1 per cent for young students), they were still less likely than younger learners to progress to either PGR or PGT study.

Table 5 **One-year transition rates of 2013-14 qualifiers, split by age on UG entry and classification of first degree**

Age on UG entry	UG degree classification	Qualifiers in group	PGR rate	PGT rate	OPG rate
Under 21	First	43,425	4.7%	9.9%	3.9%
	2:1	115,050	1.0%	6.8%	3.9%
	2:2 or below	50,800	0.1%	3.6%	2.3%
	Unclassified	6,550	1.1%	0.7%	1.5%
21 and over	First	10,400	2.5%	7.5%	6.0%
	2:1	20,350	0.4%	5.3%	4.5%
	2:2 or below	15,175	-	3.6%	2.3%
	Unclassified	2,525	-	-	1.2%
Total qualifiers		264,300			

Note: The 'unclassified' category includes students on courses with non-standard classifications (such as pass or fail) – for example many medical degrees and enhanced degrees – as well as those on honours degrees not achieving a recognised classification. Students whose age or UG degree classification are unknown have been excluded from the table but included in the total. Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Changing institution between undergraduate and postgraduate study

46. When considering whether graduates remained at the same institution for their PG study as their UG study, it is seen that mature learners were more likely to remain at the same institution than young learners (55 per cent compared with 43 per cent for 2013-14 graduates). This reflects the reduced geographical mobility often observed in mature student populations. Furthermore, among both age groups, those who stayed at the same institution were more likely to transition to PGR and PGT study than those who changed institution.

Undergraduate subject area

47. The majority of students in the mature population studied courses in the arts, humanities and social sciences at undergraduate level (79.4 per cent of 2013-14 mature qualifiers), in particular courses in nursing and subjects allied to medicine (20.7 per cent) and social studies 14.5 per cent). Similarly, 73.7 per cent of young qualifiers in 2013-14 qualified in courses in arts, humanities and social sciences, with 13.6 per cent from social studies and 12.9 per cent from creative arts and design.

48. When considering multiple PG transitions across the five-year transition period, mature students' transition to PGR study was more reliant on PGR via PGT routes than young students', with 41 per cent of mature PGR entrants progressing via PGT, compared with 34 per cent of young entrants for 2009-10 qualifiers.

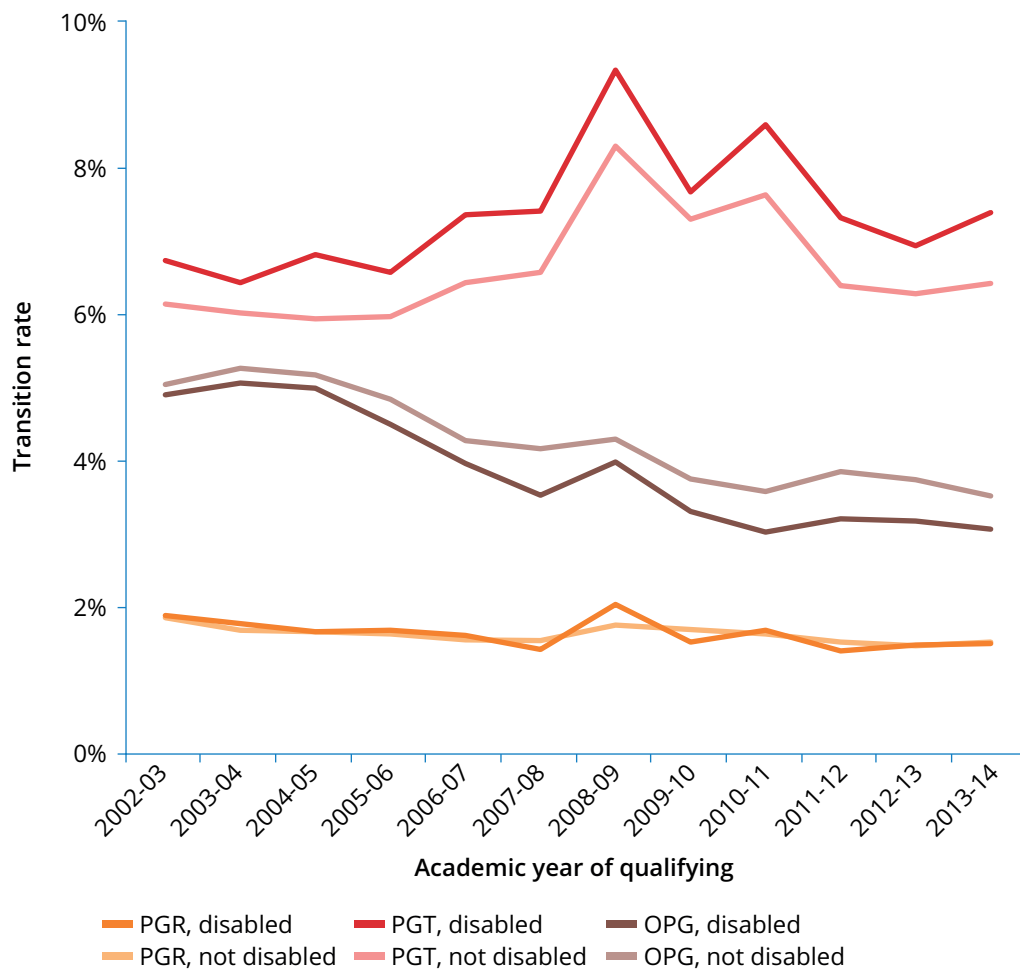
Mature qualifiers are more reliant on PGT as a stepping-stone to PGR than young learners.

Disability

49. Figure 7 shows one-year transition rates for qualifiers, split by PG type and disability status. It can be seen from the graph that disabled students continued to have a higher transition rate to PGT than non-disabled students. When considering three and five years after graduation, this difference in transition rates saw a slight broadening, with disabled students maintaining a higher transition rate to PGT after a break in study than non-disabled students. The rate of transition for disabled students to OPG has seen more of a decline over the one-year time series than for non-disabled students (a difference of 1.8 percentage points compared with 1.5 between 2002-03 and 2013-14), causing a widening of the gap in transition rates between disabled and non-disabled students. This finding persisted for the three-year and five-year time series.

Throughout the time series disabled students have higher transition rates to postgraduate taught study, even after a break in study.

Figure 7 One-year transition rates for qualifiers to PG courses between 2002-03 and 2013-14 split by level of PG study and disability



Undergraduate institution type

50. Table 6 shows transition rates by disability status and institution type. There were differences in PGT transition by institution type: disabled students at specialist HEIs had lower rates of transition to PGT study than non-disabled students, but higher rates at all other types of institution.

Table 6 One-year transition rates of qualifiers to PG courses for qualifiers in 2013-14, split by disability status and institution type

Disability	Institution type	Qualifiers in group	PGR rate	PGT rate	OPG rate
Disabled	Specialist HEIs	2,775	-	3.9%	2.7%
	HEIs with high average tariff scores	8,660	3.5%	11.0%	3.3%
	HEIs with medium average tariff scores	7,950	0.7%	6.4%	3.1%
	HEIs with low average tariff scores	5,645	-	4.8%	2.6%
Not disabled	Specialist HEIs	8,865	-	4.7%	3.4%
	HEIs with high average tariff scores	71,270	3.3%	8.5%	3.4%
	HEIs with medium average tariff scores	62,905	0.6%	5.7%	3.7%
	HEIs with low average tariff scores	47,610	0.3%	4.4%	3.4%
Total qualifiers		215,840			

Note: Students studying at unclassified HEIs have been excluded from the table but are included in the total. Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Undergraduate subject area

51. The higher transition rates to PGT for disabled students were concentrated among those qualifying in the arts, humanities and social sciences (7.7 per cent for disabled qualifiers and 7.2 per cent for non-disabled qualifiers in 2009-10). Furthermore, the multiple transitions analysis shows that a reliance on PGR entry via PGT routes has become increasingly important for disabled students, with 40 per cent of 2009-10 qualifiers studying PGT before PGR compared with just 31 per cent for 2002-03 qualifiers.

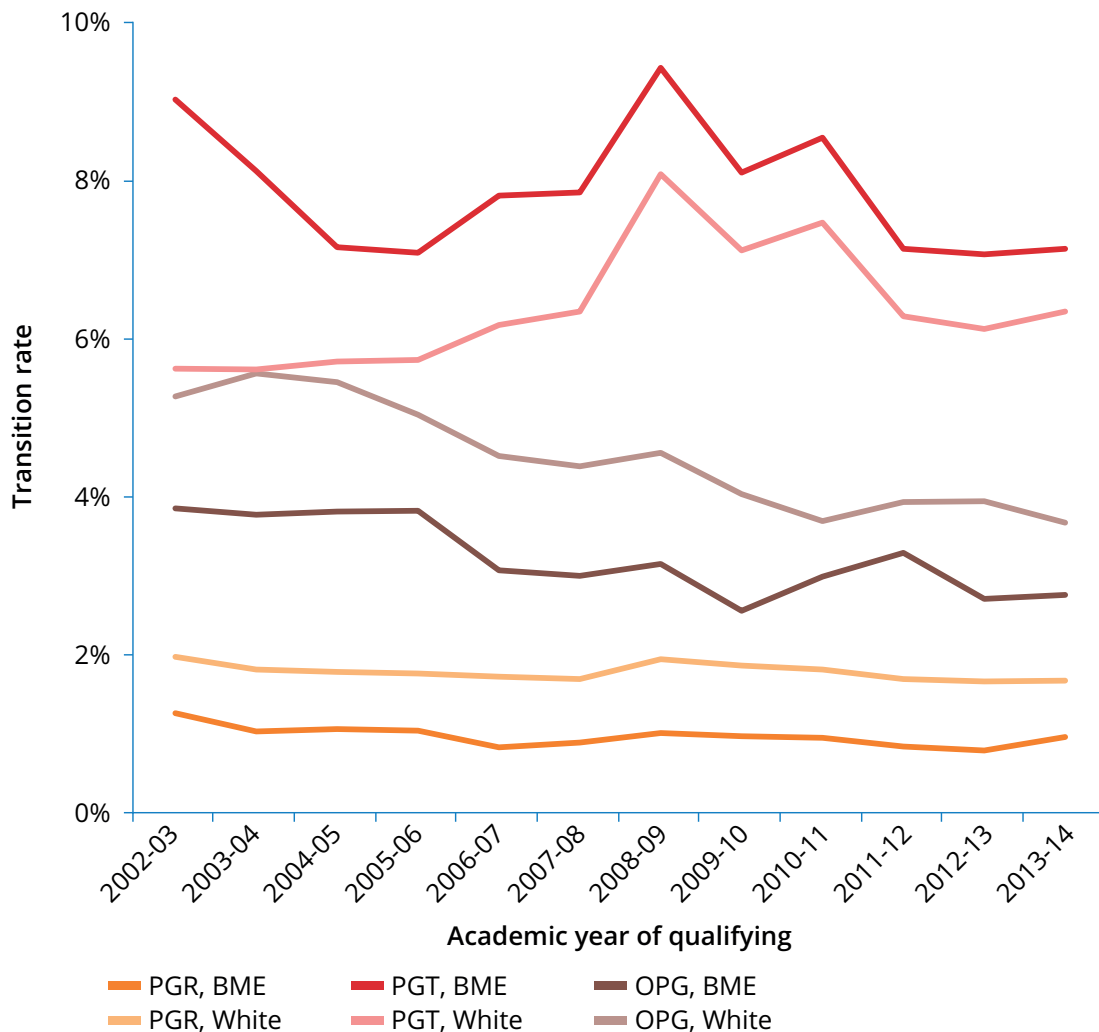
Postgraduate taught study has become an increasingly important stepping stone to postgraduate research study for disabled students.

Ethnicity

52. Figure 8 displays the one-year transition rates for young full-time first degree qualifiers at English HEIs, split by ethnicity. This graph shows that, while BME students continued to have a higher rate of transition to PGT, the difference in transition rates between White and BME students transitioning to PGT study significantly decreased across the time series. The difference in transition rates for 2002-03 graduates was 3.4 percentage points whereas the difference for the most recent qualifiers (2013-14) was only 0.8 percentage points. This is due to an increase in the number of White students transitioning to this level of PG study. However, White students have a higher transition rate to OPG study, although again the difference is narrowing over time. This is mostly due to a larger decrease in transition rates for White students to OPG study than for BME students.

Black and minority ethnic students have continued to have higher rates of transition to postgraduate taught study than White students, although this difference is decreasing.

Figure 8 One-year transition rates to PG courses between 2002-03 and 2013-14 split by level of PG study and ethnicity



53. Table 7 shows the percentage difference in transition rates for White and BME students across the three transition periods. At every transition period, BME students had higher rates of transition into PGT study than White students. However, White students were more likely to transition into PGR and OPG than BME students. In all cases the difference in transition rates widens over longer transition periods.

Table 7 Transition rates of qualifiers to PG courses in 2009-10, split by transition period, level of PG and ethnicity

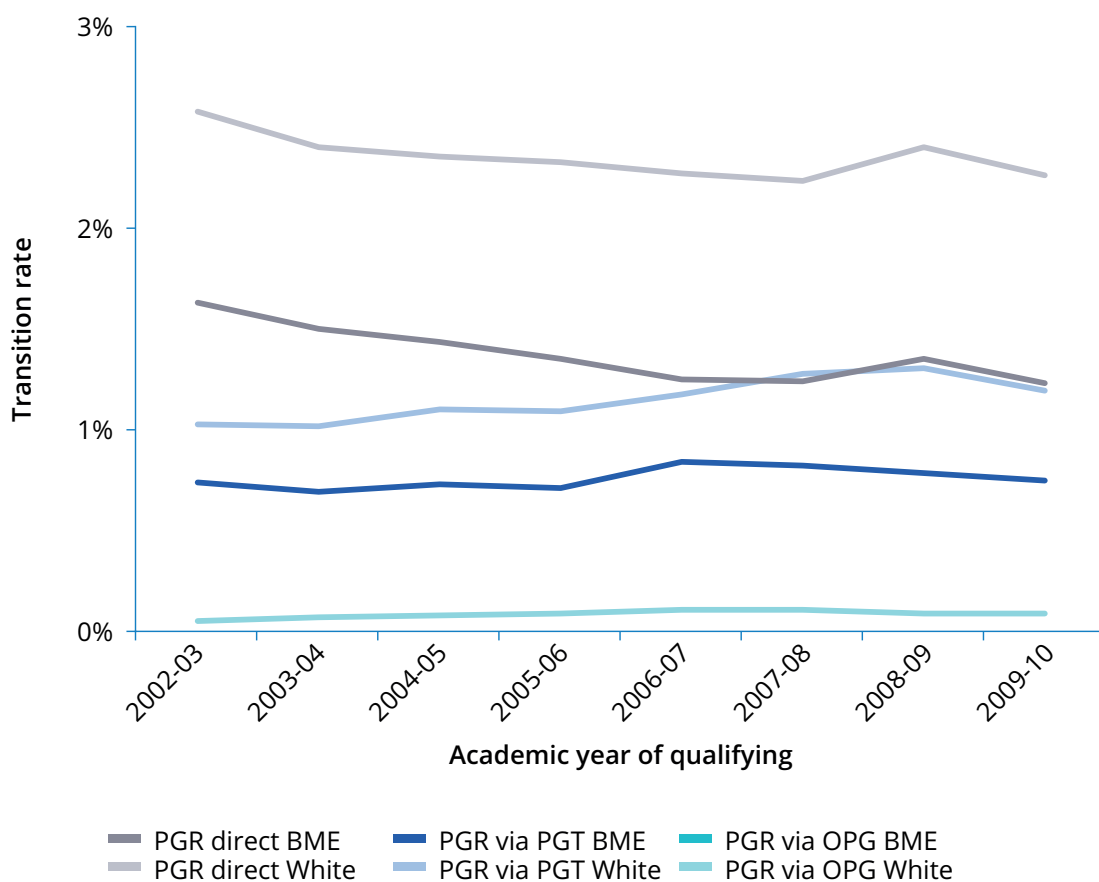
Transition period	Ethnicity	Qualifiers in group	PGR rate	PGT rate	OPG rate
One year	BME	34,700	1.0%	8.1%	2.6%
	White	136,560	1.9%	7.1%	4.0%
Percentage difference			-0.9%	1.0%	-1.4%
Three years	BME	34,700	1.2%	12.5%	6.5%
	White	136,560	2.3%	11.3%	8.3%
Percentage difference			-1.1%	1.2%	-1.8%
Five years	BME	34,700	1.3%	14.2%	8.1%
	White	136,560	2.4%	12.8%	10.4%
Percentage difference			-1.1%	1.4%	-2.3%
Total qualifiers		175,380			

Note: Students of unknown ethnicity have been excluded from the table but are included in the total.

54. The higher transition rates to PGT for BME students when considering multiple transitions might suggest that they were more likely to then go on to further PGR study. However, this was not the case. Figure 9 looks at various routes to PGR study, split by ethnicity, and clearly shows that White students had higher rates of transition to PGR both directly and via PGT.

White students continue to have higher rates of transition to postgraduate research, including via postgraduate taught study, despite the higher rate of transition to postgraduate taught of BME students.

Figure 9 Five-year multiple transition rates of qualifiers to PG courses between 2002-03 and 2009-10 split by route to PGR study and ethnicity



Degree classification

55. Table 8 shows that even when accounting for first degree attainment the overall transition trends remained: BME students were more likely to transition to PGT study, and White students to PGR and OPG study. However, more BME students with unclassified degrees went into OPG study than those from a White background. This could reflect the higher proportion of BME students who study clinical subjects at undergraduate level (4.1 per cent of BME qualifiers compared with 2.1 per cent of White qualifiers in 2013-14), as clinical students are more likely to be awarded an unclassified award and more likely to proceed to OPG study.

Table 8 **One-year transition rates of qualifiers to PG courses in 2013-14, split by ethnicity and first degree classification**

Ethnicity	UG degree classification	Qualifiers in group	PGR rate	PGT rate	OPG rate
BME	First	6,465	3.5%	10.5%	3.1%
	2:1	21,825	0.8%	7.9%	3.3%
	2:2 or below	14,445	-	5.3%	1.9%
	Unclassified	2,200	-	-	2.2%
White	First	36,515	4.9%	9.7%	4.0%
	2:1	91,985	1.0%	6.5%	4.1%
	2:2 or below	35,035	0.1%	2.9%	2.5%
	Unclassified	4,140	1.4%	0.6%	1.2%
Total qualifiers		215,840			

Note: The 'unclassified' category includes students on courses with non-standard classifications (such as pass or fail) – for example many medical degrees and enhanced degrees – as well as those on honours degrees not achieving a recognised classification. Students of unknown ethnicity or whose degree classification is unknown have been excluded from the table but are included in the total. Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Enhanced degrees

56. Table 9 presents transition rates of qualifiers, split by ethnicity and degree type. It reveals that, for 2013-14 qualifiers, a higher proportion of BME students (6.3 per cent) studied an enhanced UG degree than White students (5.2 per cent). Among both BME students and White students, transition rates from enhanced degree to PGR study are substantially higher than for those studying traditional degrees. However, the transition rate to PGR for White students is over twice that for BME students. Furthermore, among those on enhanced degrees BME students were less likely to transition to PGT and more likely to transition to OPG than White students, in contrast to the overall findings.

Table 9 **Transition rates of qualifiers to PG courses in 2013-14, split by ethnicity and degree type**

Ethnicity	Enhanced Degree	Qualifiers in group	PGR rate	PGT rate	OPG rate
BME	Enhanced	2,845	6.6%	1.3%	3.2%
	Traditional	42,095	0.6%	7.5%	2.7%
White	Enhanced	8,680	15.6%	2.1%	2.5%
	Traditional	159,000	0.9%	6.6%	3.7%
Total qualifiers		215,840			

Note: Students of unknown ethnicity have been excluded from the table but are included in the total.

Undergraduate subject area

57. A higher proportion of BME students studied science, technology, engineering and mathematics (STEM) subjects at UG level than White students (25.5 per cent for BME 2013-14 qualifiers, compared with 19.2 per cent of White students). This may help explain why BME students had a higher percentage undertaking enhanced degrees, since for 2013-14 qualifiers around 91 per cent of all enhanced degrees were in STEM subjects. Of those progressing from STEM subjects, the transition rate for BME students to PGR study was 3.5 percentage points lower than for White students,

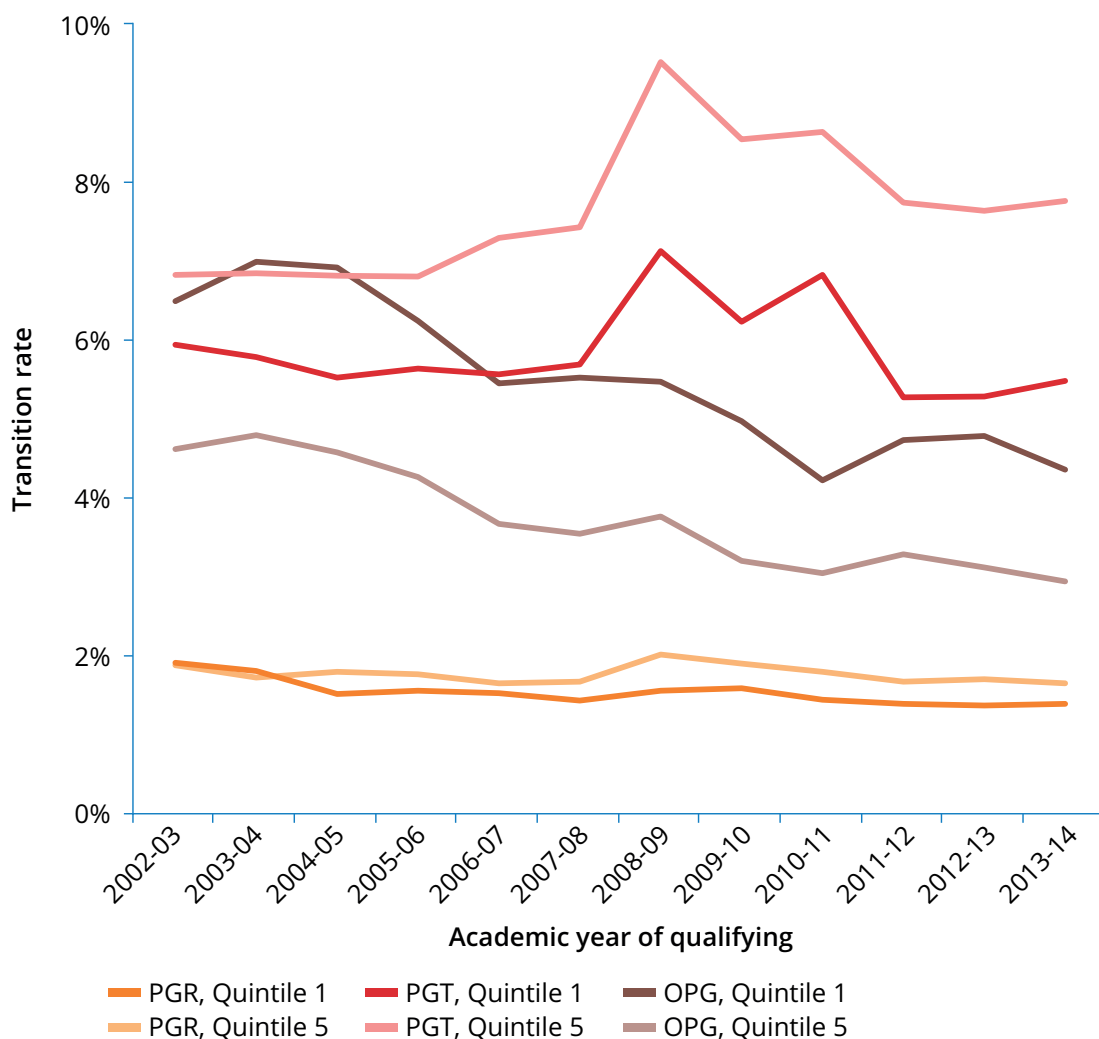
and among those progressing to PGT study BME transition rates were 2.5 percentage points higher than for White students.

POLAR

58. Figure 10 shows the transition rates split by PG type and POLAR quintile. Participation of Local Areas is a classification of geographical areas based on rates of participation in higher education by young people: its latest iteration is POLAR3. Figure 10 shows that students from POLAR quintile 5 (the highest participation quintile) had higher rates of transition to both PGT and PGR study. This difference is especially marked for PGT, for which the difference has been increasing since 2002-03 when it was 0.5 percentage points to 2.2 percentage points in 2013-14. Conversely, Quintile 1 students (those from the lowest participation areas) continued to have consistently higher rates of transition to OPG study (4.2 per cent compared with 2.8 per cent for quintile 5 qualifiers in 2013-14). This difference has decreased slightly over time.

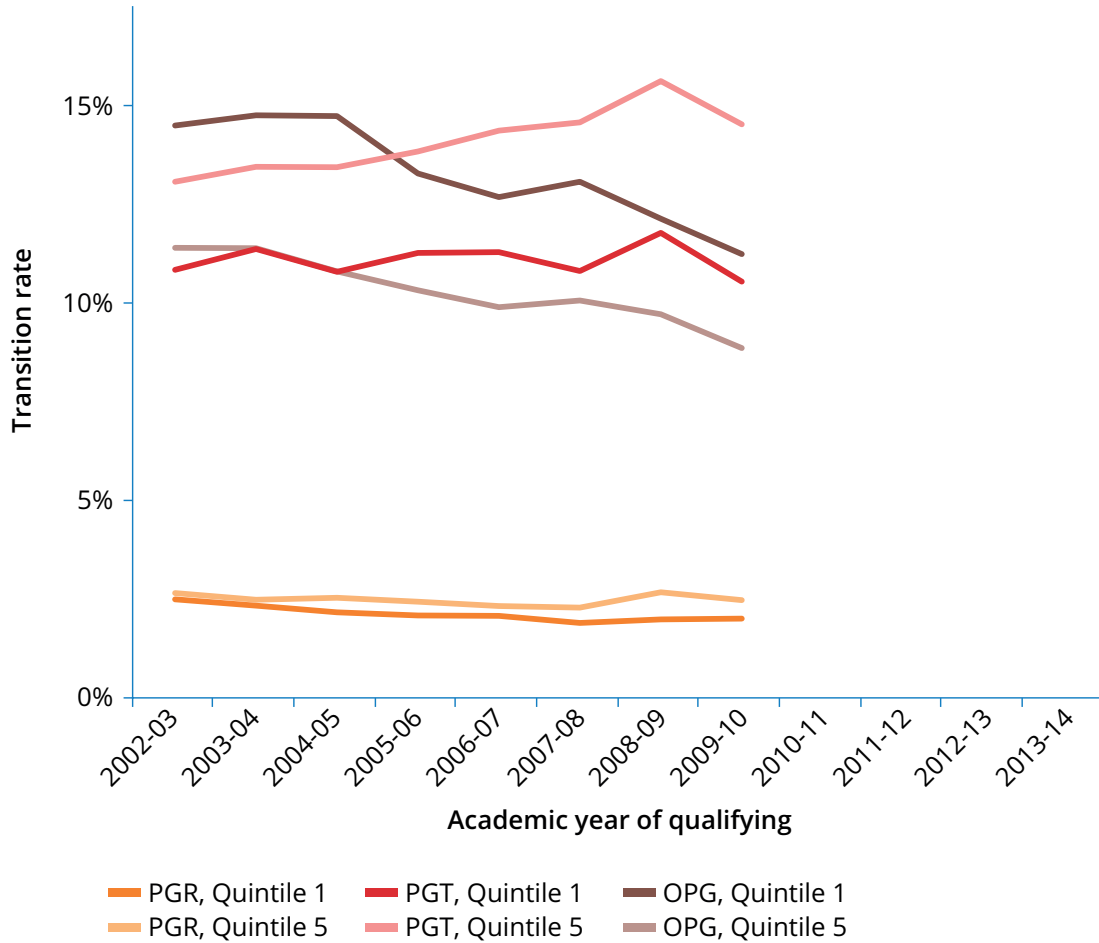
Students from low-participation backgrounds continue to have lower rates of transition to postgraduate taught and postgraduate research study than those from high-participation backgrounds, with transition rates decreasing across the time series.

Figure 10 One-year transition rates of qualifiers to PG courses between 2002-03 and 2013-14 split by level of PG study and POLAR



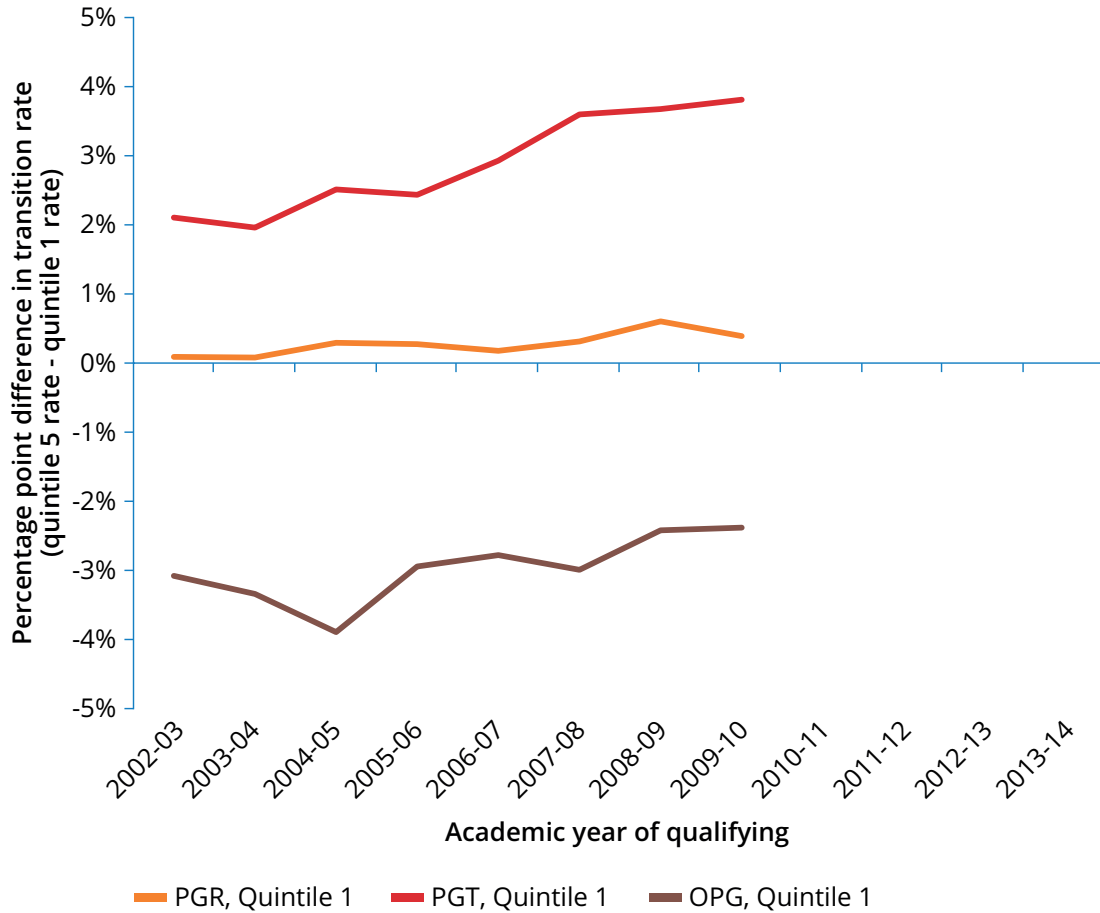
59. Figure 11 considers the five-year transition rates split by PG type and POLAR quintile. This shows that even when given more time to transition to PG, quintile 5 students continue to have higher rates of transition to both PGT and PGR study.

Figure 11 Five-year transition rates of qualifiers to PG courses between 2002-03 and 2013-14 split by level of PG study and POLAR



60. Figure 12 focuses on the percentage point differences between POLAR quintile 1 and quintile 5 students presented in Figure 11. The lines above the axis indicate where quintile 5 students had higher rates of transition than quintile 1 students and the lines below the axis show where quintile 1 students had higher rates than quintile 5 students.

Figure 12 Difference in transition rate between POLAR quintile 1 and quintile 5 graduates five years after graduation



61. From this it can be seen that not only do POLAR quintile 5 students continue to have higher rates of transition to PGT and PGR five years after graduation, but that this difference has increased over time. The percentage point difference among students transitioning to PGT study widened from 2.2 percentage points for 2002-03 qualifiers to 4.0 percentage points for 2009-10 qualifiers. POLAR quintile 1 students are both less likely to enter higher education initially and less likely to transition to PGT and PGR, even when allowing for a break in study, and that difference is increasing over time.

POLAR quintile 1 students are less likely to return to PGT or PGR study after a break in study, meaning the difference in transition rates between POLAR quintile 1 and quintile 5 students does not decrease when allowing for a break in study.

62. When considering multiple transitions, POLAR quintile 5 students were more likely to enter PGR study via a prior PGT route: for 2009-10 qualifiers the proportion taking the PGT route was 36 per cent compared with 33 per cent for quintile 1 students. However, over the time series quintile 1 students saw a seven percentage point increase in this proportion compared with five percentage points for quintile 5 students, suggesting that reliance on this route into PGR is increasing for both groups.

Degree classification

63. Table 10 shows degree classifications for POLAR quintile 1 and 5 students graduating in 2013-14. This shows that quintile 1 students achieving a first class degree had higher rates of transition to PGR and OPG study than quintile 5 students (4.8 per cent and 5.1 per cent respectively). This differs from the overall trend for PGR, showing that good UG attainment is a key driver when indicating PGR transitions. However, transition to PGT and OPG was not affected in the same way.

POLAR quintile 1 students achieving a first class degree had higher rates of transition to PGR and OPG study than quintile 5 students.

Table 10 Transition rates of qualifiers to PG courses in 2013-14, split by POLAR quintile and first degree classification

UG degree classification	POLAR	Qualifiers in group	PGR rate	PGT rate	OPG rate
First	Quintile 1	3,675	4.8%	8.7%	5.1%
	Quintile 5	15,100	4.6%	10.8%	3.0%
2:1	Quintile 1	10,505	0.9%	5.6%	4.9%
	Quintile 5	39,295	1.0%	7.7%	3.2%
2:2 or below	Quintile 1	6,085	-	3.0%	2.6%
	Quintile 5	13,870	-	4.4%	1.9%
Unclassified	Quintile 1	390	-	-	-
	Quintile 5	2,810	1.1%	-	1.1%
Total qualifiers		215,840			

Notes: The 'unclassified' category includes students on courses with non-standard classifications (such as pass or fail) – for example many medical degrees and enhanced degrees – as well as those on honours degrees not achieving a recognised classification. Students whose UG degree classification is unknown have been excluded from the table but included in the total. The total includes students from all POLAR quintiles. Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Undergraduate institution type

64. Table 11 goes on to consider transition by type of institution. This shows that POLAR quintile 1 qualifiers were more likely to transition to PGR study across all types of institution than quintile 5 qualifiers. However, since transition rates to PGR are greatest from high-tariff institutions and quintile 1 students are disproportionately under-represented at these institutions (just 22 per cent of quintile 1 qualifiers attending them compared with 49 per cent of quintile 5 qualifiers), the overall transition rate to PGR for quintile 1 graduates is lower than for quintile 5.

65. Overall, POLAR quintile 1 students at high-tariff institutions were more likely to transition to some form of PG (total transition was 17 per cent) than those from quintile 5 backgrounds (14.9 per cent). This suggests that once students from low-participation backgrounds enter UG study at a high-tariff HEI, their participation levels at PG are much improved.

Table 11 Transition rates of qualifiers to PG courses in 2013-14, split by POLAR quintile and institution type

POLAR	Institution type	Qualifiers in group	PGR rate	PGT rate	OPG rate
Quintile 1	Specialist HEIs	1,000	0.0%	3.7%	4.9%
	HEIs with high average tariff scores	4,525	4.1%	7.7%	5.2%
	HEIs with medium average tariff scores	8,335	0.7%	5.2%	4.0%
	HEIs with low average tariff scores	6,785	0.4%	3.9%	3.6%
Quintile 5	Specialist HEIs	3,850	-	5.1%	2.1%
	HEIs with high average tariff scores	34,930	2.9%	9.3%	2.7%
	HEIs with medium average tariff scores	19,630	0.5%	6.2%	3.1%
	HEIs with low average tariff scores	12,605	0.2%	5.1%	2.9%
Total qualifiers		215,840			

Notes: Students at unclassified HEIs have been excluded from the table but are included in the total. Students from all POLAR quintiles are included in the total. Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Undergraduate subject area

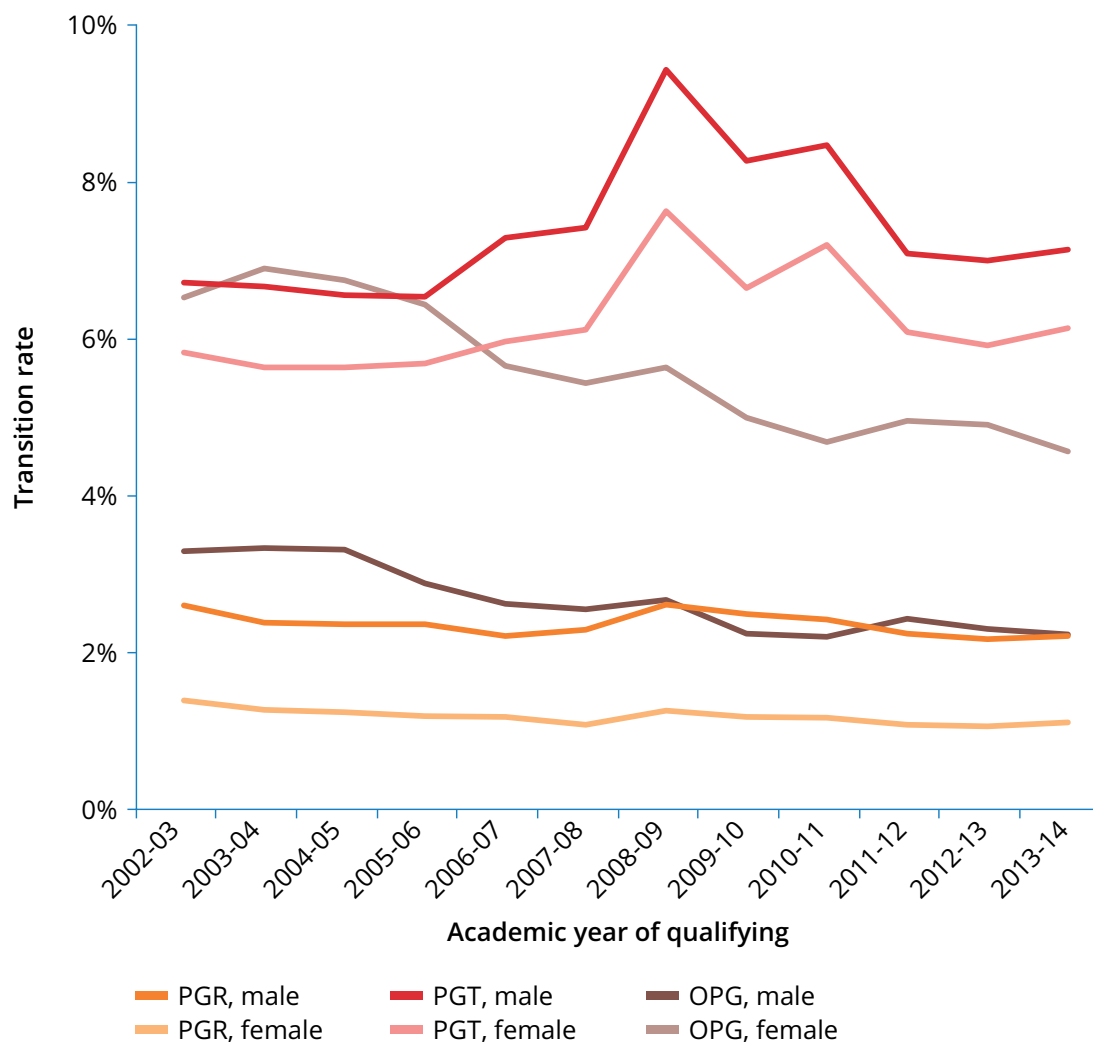
66. The overall trends between POLAR quintiles 1 and 5, presented in Figure 10, were maintained across broad subject groupings. The biggest difference in subject choices and transition rates by POLAR quintiles was found by the PG subject area rather than the UG qualifying subject. This indicated that the higher transition of quintile 1 students to OPG study was strongly related to students entering teaching careers and studying PGCE courses.

Sex

67. Figure 13 shows transition rates to the various levels of PG study split by sex. The graph shows that, over time, male students have consistently had higher rates of transition to PGR and PGT study than female students. This is the greatest difference in transition to PGR study across all the characteristics that have been examined (1.1 percentage points' difference for 2013-14 qualifiers). Female students have continued to have a much higher rate of transition to OPG study than male students, although the decline in transition to OPG study has been larger for female qualifiers than male (declines of 1.9 and one percentage point respectively).

Male graduates continue to have higher rates of transition to postgraduate taught and research study throughout the time series.

Figure 13 One-year transition rates of qualifiers to PG courses between 2002-03 and 2013-14 split by level of PG study and sex



68. Table 12 displays the transition rates of male and female students qualifying in 2009-10 to the various levels of PG study, and for the three transition periods. This shows that female students were more likely than male students to enter PGT courses after a break in study, as the percentage difference decreases in size. Nonetheless, male students continued to have a higher overall transition rate to PGT study for all transition periods. Furthermore, female students were more likely to transition to OPG study over all transition periods, and more likely than male students to transition to OPG after a break in study.

Female graduates were more likely to return to PGT after a break in study, meaning the difference in transition rates between male and female graduates decreases when allowing for a break.

Table 12 Transition rates of qualifiers to PG courses in 2009-10, split by transition period, level of PG and sex

Transition period	Sex	Qualifiers in group	PGR rate	PGT rate	OPG rate
One year	Male	77,585	2.4%	8.2%	2.2%
	Female	97,795	1.1%	6.6%	4.9%
Percentage difference			1.3%	1.6%	-2.7%
Three years	Male	77,585	2.9%	12.3%	5.0%
	Female	97,795	1.4%	11.0%	10.2%
Percentage difference			1.5%	1.3%	-5.2%
Five years	Male	77,585	3.1%	13.7%	6.5%
	Female	97,795	1.6%	12.6%	12.6%
Percentage difference			1.5%	1.1%	-6.1%
Total qualifiers		175,380			

Undergraduate subject area

69. Table 13 displays transition rates by sex and qualifying subject area. As expected, the proportion of male qualifiers in STEM subjects was significantly higher than the female proportion (30 per cent compared with 13 per cent for 2013-14 qualifiers). However, female students were more likely to transition to PG (overall) than their male counterparts in all subjects except clinical subjects.

70. Variations in transition by type of PG broadly reflected the overall trends, with men more likely to choose PGR study and women more likely to choose OPG study for all qualifying subjects, as in Figure 12. However, transition to PGT study did exhibit a subject variation, with men more likely to transition to PGT when qualifying in arts, humanities and social sciences, and women more likely to transition to PGT when qualifying in STEM courses.

Table 13 One-year transition rates of qualifiers to PG courses in 2013-14, split by sex and qualifying subject area

Sex	Qualifying subject	Qualifiers in group	PGR rate	PGT rate	OPG rate
Male	Agriculture and forestry	490	-	-	-
	Arts, humanities and social sciences	62,045	0.6%	7.3%	2.1%
	Clinical subjects	2,390	-	1.0%	1.4%
	Modern foreign languages	1,365	-	7.4%	2.2%
	STEM	28,875	5.6%	7.0%	2.4%

Sex	Qualifying subject	Qualifiers in group	PGR rate	PGT rate	OPG rate
Female	Agriculture and forestry	1,170	-	4.3%	-
	Arts, humanities and social sciences	96,940	0.4%	5.8%	4.5%
	Clinical subjects	3,180	-	-	1.0%
	Modern foreign languages	3,020	0.8%	7.8%	5.7%
	STEM	15,630	5.2%	8.2%	4.9%
Total qualifiers		215,840			

Note: Students studying unknown or combined subjects have been excluded from the table but are included in the total. Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Subject area differences

71. When considering other characteristics, subjects have been introduced using HEFCE's standard broad subject grouping (see Annex C for more details). In this section, differences in transition rates by subject are considered independently of other characteristics. They are broken down into both HEFCE's standard broad subject grouping and a set of 26 narrower subject groupings. The broad subject groupings are:

- agriculture and forestry
- arts, humanities and social sciences
- clinical subjects
- modern foreign languages
- STEM.

72. Table 14 shows overall PG transition rates for all graduates, by broad qualifying subject area and the subject area into which they transition. It can be seen that, for almost all subject areas, graduates were most likely to remain in their UG subject area for their PG study. The exception to this is modern foreign languages, where higher proportions of qualifiers moved into humanities and social sciences (12.7 per cent) or education (11.3 per cent) than remained in languages (3.8 per cent). A comparable table showing the same findings for the narrower subject grouping can be found in Annex C.

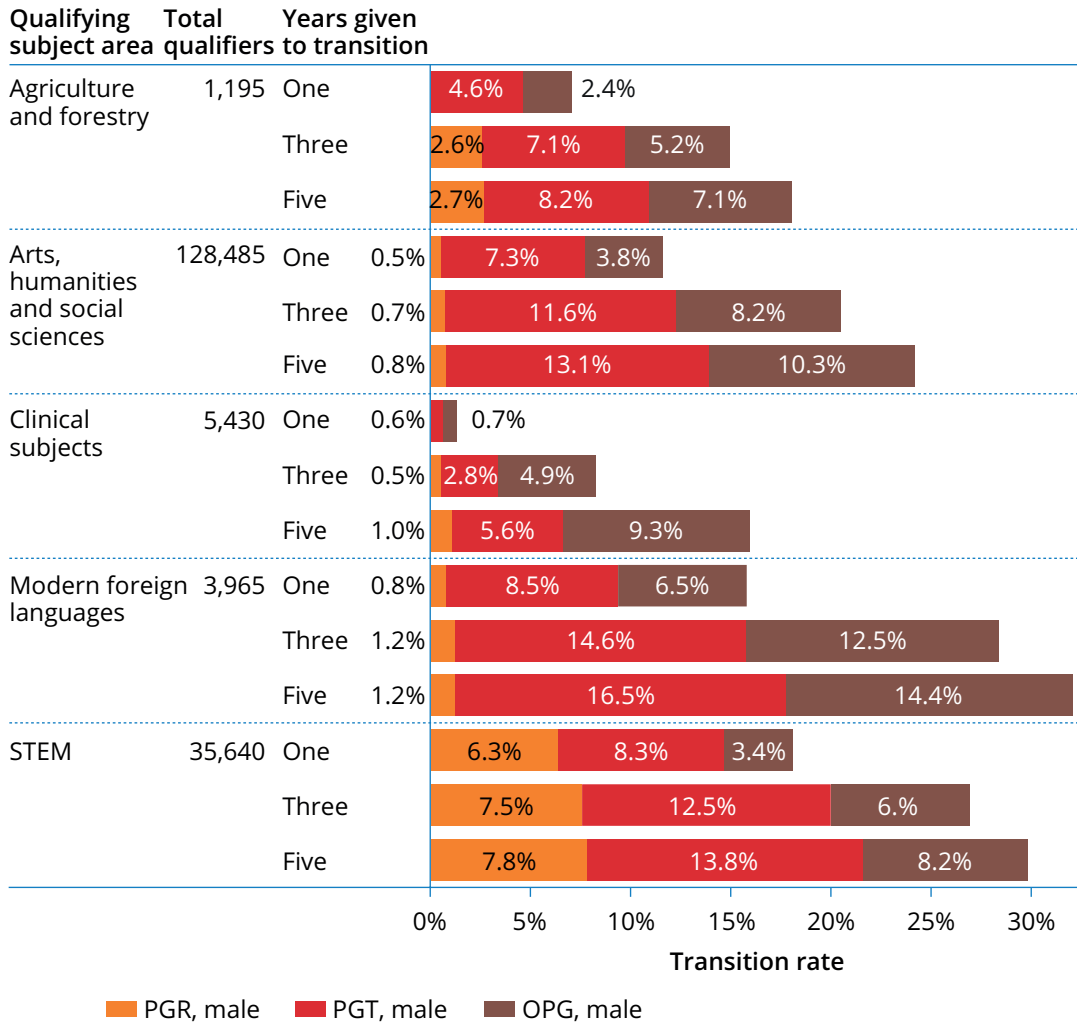
Table 14 Five-year transition rates to all levels of PG, by qualifying subject area and postgraduate subject area

Qualifying subject area	Total qualifiers	Postgraduate subject area					
		Agriculture and forestry	Arts, humanities and social sciences	Clinical subjects	Modern foreign languages	STEM	Education
Agriculture and forestry	1,195	5.1%	3.6%	2.1%		3.3%	3.9%
Arts, humanities and social sciences	128,485	0.1%	15.2%	0.3%	0.1%	0.9%	7.6%
Clinical subjects	5,430	0.6%	3.9%	7.8%		1.2%	2.4%
Modern foreign languages	3,965		14.2%		4.1%	0.5%	13.1%
STEM	35,640	0.3%	5.1%	1.5%		17.2%	5.7%

Note: Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

73. Figure 14 shows transition rates for all the transition periods for the broad subject groupings. It can be seen that transition rates to PGR are considerably higher for STEM graduates than any other subject area. Relative to PGT and OPG study, those progressing into PGR are disproportionately more likely to do so without a break in study.

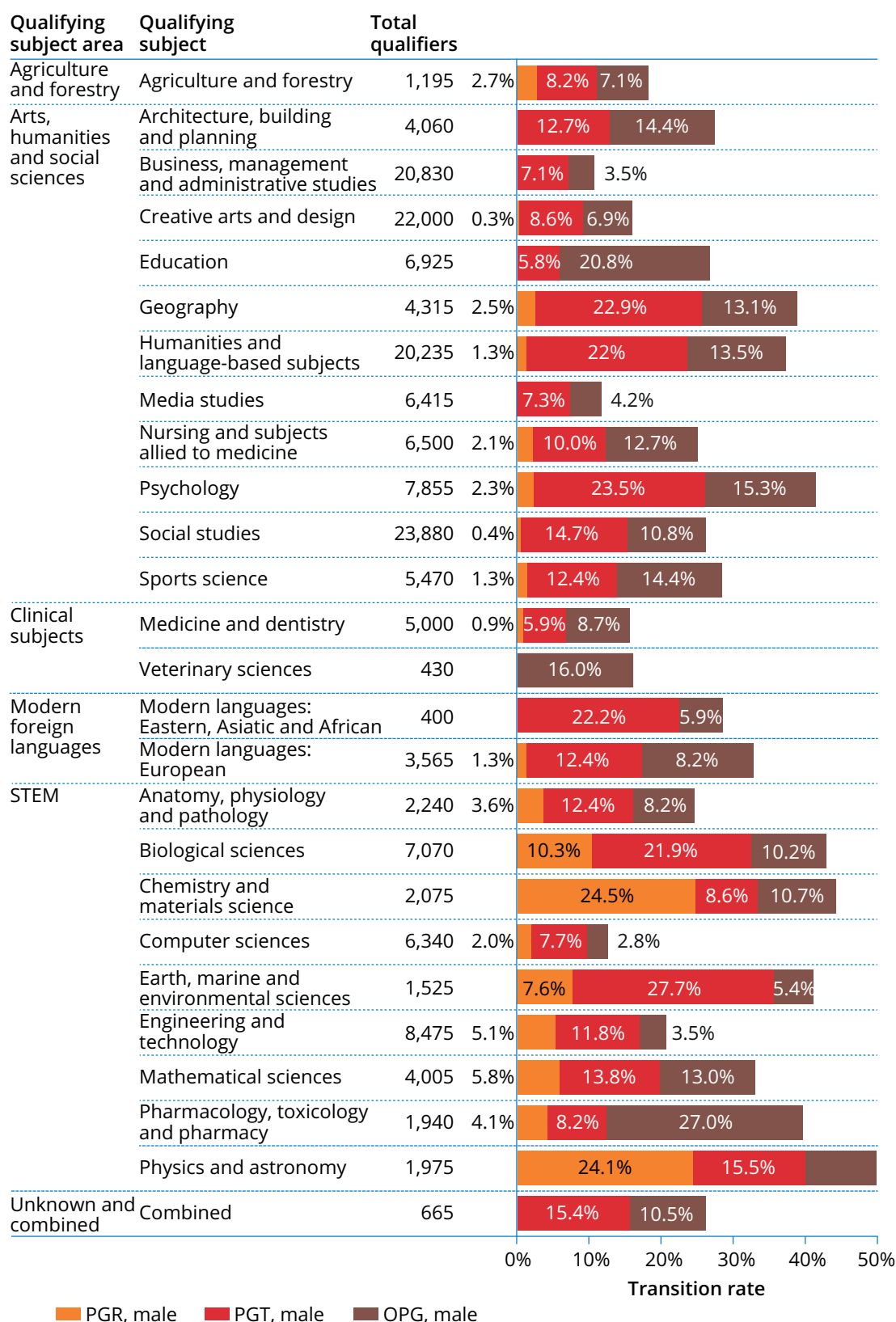
Figure 14 Transition rates for qualifiers in 2009-10 split by transition period, qualifying subject area



74. Figure 15 breaks the subjects down into narrower groupings and shows transition rates five years after graduation. Again, this shows that the highest transition rates to PGR are in STEM subjects, specifically chemistry and materials sciences (24.5 per cent) and physics and astronomy (24.1 per cent). While this chart only shows data for 2009-10 graduates, these two subjects have had the highest rate of transition to PGR since the start of the time series (2002-03 graduates).

Graduates in STEM subjects have the highest transition rates into postgraduate research.

Figure 15 Five-year transition rates for qualifiers in 2009-10 split by transition period, qualifying subject and level of PG

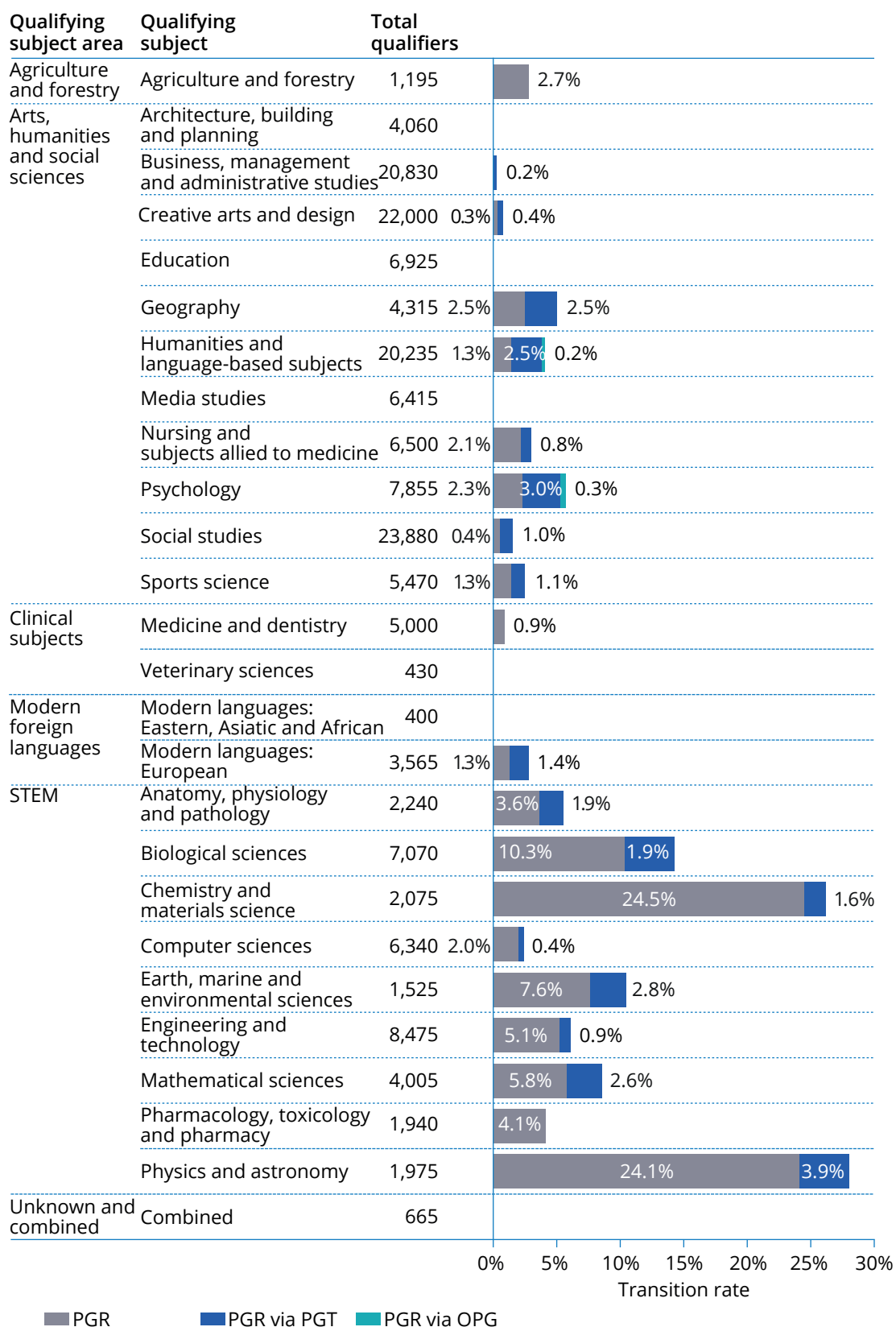


Routes into postgraduate research

75. Figure 16 shows the routes taken by students whose highest level of study is PGR. The highest transition rates to PGR via PGT are for students studying biological sciences, physics and astronomy, but it is relatively more common in some subjects to study PGT before PGR. For creative arts and design, geography, humanities and language-based subjects, psychology, and both categories of modern foreign languages, the transition rates for students undertaking PGT study before entering PGR are the same as or higher than those for students entering PGR directly. This reflects the fact that students in these subject areas are often expected to undertake taught study at PG level before progressing to research-based study. Since historically there has been limited funding for PGT courses, it has been argued that there is a 'broken bridge' in these subjects, as graduates have been unable to transition to PGR via PGT. It is hoped that the introduction of PGT loans will address this.

Relative to the total proportion of students entering postgraduate research, graduates in arts, humanities and social sciences rely most on postgraduate taught study as a stepping-stone to postgraduate research.

Figure 16 Transition rates five years after graduation split by qualifying subject area and route to PGR



76. The rates of transition into PGT are comparable across the broad subject areas, but Figure 15 shows that there were large differences in five-year transition rates to PGT across the narrower subject groupings. The rates of PGT transition were lowest for clinical subjects (medicine, dentistry and veterinary science) as well as being low for graduates in:

- business, management and administrative studies (7.1 per cent for 2009-10 graduates)
- education (5.8 per cent for 2009-10 graduates)
- media studies (7.3 per cent for 2009-10 graduates).

77. By contrast, the highest PGT single transition rates were in:

- earth, marine and environmental sciences (27.7 per cent for 2009-10 graduates)
- psychology (23.5 per cent for 2009-10 graduates)
- geography (5.8 per cent for 2009-10 graduates)
- Eastern, Asiatic and African modern languages (22.2 per cent for 2009-10 graduates)
- humanities and language-based subjects (22.0 per cent for 2009-10 graduates).

78. The majority of these subjects are in the arts, humanities and social sciences, and the prevalence of this level of transition compared with STEM is due in part to far fewer enhanced degrees being offered in those subject areas than in STEM. This may also reflect the requirement to hold a PGT level qualification before entering PGR, as discussed in paragraph 71.

79. OPG courses are undertaken with varying transition rates by students graduating in all subject areas. The take-up is particularly high from students graduating in pharmacy, toxicology and pharmacology. This is due to high demand for continuing professional development study among those choosing to work as a pharmacist after graduation. These kinds of qualifications are also found in other subject areas, but not to such an extent at OPG levels.

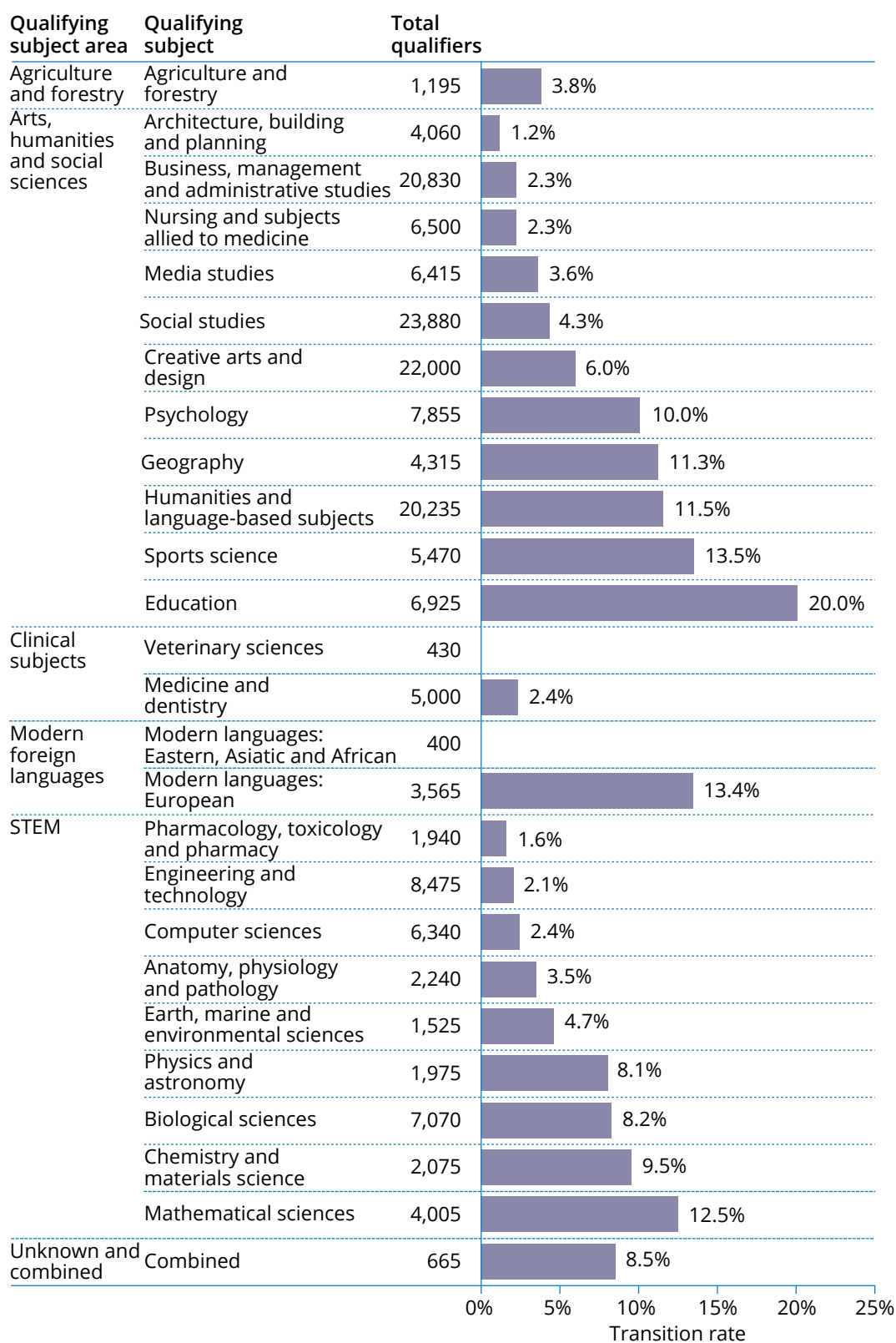
80. Across other subjects, a large proportion of the OPG transitions are to PGCEs, as shown in Figure 17. In the arts, humanities and social science subjects the highest rates of transition into OPG education were for graduates from education. Following that, the highest transition rates to OPG in education for 2009-10 graduates were in:

- sports science (13.5 per cent)
- humanities and language-based subjects (11.5 per cent)
- geography (11.3 per cent)
- psychology (10.1 per cent).

81. Transition rates to OPG in education were typically lower in STEM subjects, although 12.5 per cent of graduates in mathematics made this transition. Graduates in European languages had much higher five-year transition rates to OPG education than those studying Eastern, Asiatic and African languages, probably due to there being a higher demand for teachers in European language in English schools. Comparing one and five-year transition rates shows that graduates in arts, humanities and social sciences and modern foreign languages were more likely than those in STEM to take a break in study before returning to do OPG in education. For example, for 2009-10 graduates in psychology the one-year transition rate to OPG in education was only 2.8 per cent, but five years after graduation this was considerably higher, at 10 per cent. Similarly, the transition rate for graduates in European modern foreign languages more than doubled between one year and five years after graduation.

Graduates across all subject areas see transitions to other postgraduate study, mostly influenced by other postgraduate study in education.

Figure 17 Five-year transition rates for 2009-10 qualifiers whose first transition is to OPG in education



Further work

82. This work marks the first consideration by HEFCE of longer transition routes into postgraduate study for first degree graduates. We hope to run this analysis again once data has been returned for those qualifiers in the 2012-13 cohort of undergraduates entering under the higher fee regime. It is also expected that this work will help to formulate and develop future plans for postgraduate policy and funding.

Annex A: Details of postgraduate groupings

1. This report uses a different grouping of postgraduate (PG) levels from the previous PG transitions report (HEFCE2013/13). This report brings the PG groupings in line with those used by the Higher Education Statistics Agency in the derived field 'XLEV601'.
2. Table A1 shows some details of the types of qualification included in each of the PG groupings used in this report, and the proportion of students transitioning in each grouping.

Table A1 **Number of entrants to PG courses in 2014-15, split by detailed PG level as used in this report**

PG level	Detail of course aims	All PG entrants in 2014-15	
		Entrants	Percentage
Postgraduate research (PGR)	Research-based doctorates of philosophy (PhDs), new-route PhDs and research-based masters level courses	34,715	11%
Postgraduate taught (PGT)	Taught doctorates, taught masters and professionals taught masters (such as MBAs)	190,795	60%
Other postgraduate (OPG)	Other research-based study including doctorate level professional studies and study for institutional credit at doctorate and masters levels	1,600	1%
	Other taught study including doctorate level professional qualifications, masters level diplomas and certificates, and masters level study for institutional credit	55,365	17%
	PGCEs	25,480	8%
	Professional qualification at masters level	9,800	3%
Total		317,760	100%

3. Table A2 shows the number of students in each PG grouping, based on the methodologies from this and the previous report. It can be seen from this that the change in methodology has not had an impact on the percentage of students in each PG level. Analysis has been carried out to ensure that the change does not have an impact on the findings of the report.

Table A2 Number of students in each PG level, using methodologies from this and the previous report

PG level	Groupings used in this report	Percentage of total transitioning	Groupings used in previous report	Percentage of total transitioning
PGR	34,715	11%	36,530	11%
PGT	190,795	60%	188,740	59%
OPG	92,245	29%	92,490	29%
Total	317,760	100%	317,760	100%

4. The methodology has changed in the following ways:
- a. Doctorate degrees that do not meet the criteria for research-based higher degrees were previously categorised as PGR and are now categorised as PGT.
 - b. Research-based higher degrees where the student may ultimately study at Levels D or L were previously categorised as PGR and are now categorised as OPG⁶.
 - c. Pre-registration masters degrees leading towards eligibility to register to practice with a health or social care or veterinary statutory regulatory body were previously categorised as OPG and are now categorised as PGT.
 - d. The previous report also included students who were studying undergraduate level qualifications after completing an undergraduate first degree – study that was ‘post-graduate’ in time, not level. Since these qualifications are not included anywhere in the groups used in this report, numbers for this grouping have not been supplied.

⁶ Level D includes doctoral degrees and level L includes masters degrees. Further explanation can be found at https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=15051&href=a^_^COURSEAIM.html.

Annex B: Linking processes and statistical significance

Outline of overall linking process

1. To link all available Higher Education Statistics Agency (HESA) records, a unique longitudinal identifier is created for each individual who appears at any point in the HESA record. This identifier is created as follows:

- a. All students in a HESA individualised student record (in year X) are matched to the following year's record (year X+1) using a number of processes:
 - i. Records with matching HESA fields UKPRN, HUSID and NUMHUS (UHN linked).
 - ii. Records matched on sex, birth date, first name and surname, with restriction for common names and an allowance for maiden name changes and spelling errors.
 - iii. Records matched on HUSID and either postcode, birth date, surname or first name.
 - iv. Records matched on HESAINST, HUSID, sex and surname with potential spelling errors or maiden name changes.
 - v. Records matched on birth date, sex and first part of postcode. A combination of first name, HUSID and second part of postcode is further used to eliminate or select potential matches.
- b. These five matching processes are also used internally to match up records belonging to the same student within a single academic year's HESA record. This internal matching is done for both year X and year X+1.
- c. The identified matches are then resolved so that a single person identifier exists for year X and year X+1.
- d. The process is repeated for matching between all pairs of years (X+1 and X+2, X and X+2, and so on).
- e. The final step is to resolve all links found across all the years to produce a single HESA longitudinal identifier.

UHN linking

2. The UHN is a combination of three fields from the HESA individualised student records (the UK provider reference number, the HESA unique student identifier and the student instance identifier) which uniquely identify a student on a course (or 'instance of study'). The UHN forms a year-on-year linking mechanism which can be used to track the student's progression on the instance from one year to the next. It follows that the UHN enables a student to be tracked from commencement of the instance through to completion.

3. Further information regarding the composition, usage and linking of the UHN is available at the HESA website under 'Understanding student continuity and the UHN link' (https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=15051&href=UHN.html).

Statistical significance

4. Throughout the report, univariate and bivariate statistics are presented with no additional characteristics accounted for; multivariate relationships have not been explored. The practical and statistical significance of univariate and bivariate differences is left to the reader to understand and interpret.

5. When comparing statistics from two groups in a population, it is important to account for the size of the group from which the statistic is derived, as smaller groups will produce more variable statistics. The following scenarios give the reader a guide to approximate univariate confidence intervals to use in comparisons. It is assumed that the overall transition rate is calculated from the total population, and can be considered robust with little variability.

- a. If the group size is greater than 10,000, then a 1 per cent or greater difference in transition rates between the group and overall rate is statistically significant.
- b. If the group size is between 2,000 and 10,000, then a 2 per cent or greater difference in transition rates between the group and overall rate is statistically significant.
- c. If the group size is between 1,000 and 2,000, then a 3 per cent or greater difference in transition rates between the group and overall rate is statistically significant.
- d. If the group size is between 600 and 1,000, then a 4 per cent or greater difference in transition rates between the group and overall rate is statistically significant.

Annex C: Subject groupings

1. This annex presents a detailed breakdown of the broad subject groupings used throughout this report and shows how they are mapped to the sub-groups used in parts of the subjects analysis. Table C1 shows this mapping, as well as how these subject areas relate to the Joint Academic Coding System. It also provides a completed summary of undergraduate (UG) subject to postgraduate (PG) subject transitions for all PG types.
2. The broad subject categories are based on a standard HEFCE grouping which splits all subjects into five areas:
 - clinical subjects
 - science, technology, engineering and mathematics (STEM)
 - modern foreign languages
 - arts, humanities and social sciences
 - unknown and combined subjects.

Table C1 Detailed breakdown of subject groupings

Broad group	Sub-group	Joint Academic Coding System (JACS) codes
Clinical subjects	Medicine and dentistry	JACS principal subject group A – Medicine and dentistry
	Veterinary sciences	JACS subject lines D1, D2 – Veterinary sciences
STEM	Anatomy, physiology and pathology	JACS subject line B1 – Anatomy, physiology and pathology
	Biological sciences	JACS principal subject group C – Biological sciences, excluding subject lines C6 – Sports science and C8 – Psychology
		JACS subject line D7 – Agricultural sciences
		JACS subject line F4 – Forensic and archaeological sciences
	Chemistry and materials science	JACS subject lines F1 – Chemistry and F2 – Materials science
	Computer sciences	JACS principal subject group I – Computer sciences (2011-12 onwards)
		JACS subject lines G4 to G7, G02, G92
	Earth, marine and environmental sciences	JACS subject lines F6 – Geology, F7 – Ocean sciences and F9 – Others in physical sciences
Engineering and technology	JACS principal subject groups H and J	
Mathematical sciences	JACS principal subject group G (2011-12 onwards)	
	JACS subject lines G1 to G3, G01, G91	

Broad group	Sub-group	Joint Academic Coding System (JACS) codes	
STEM (continued)	Pharmacology, toxicology and pharmacy	JACS subject line B2 – Pharmacy, toxicology and pharmacology	
	Physics and astronomy	JACS subject lines F3 – Physics and F5 – astronomy	
Modern foreign languages	Modern languages: Eastern, Asiatic and African	JACS principal subject group T – Eastern, Asiatic, African, American and Australasian languages, literature and related, excluding subject lines T7 – American studies and T8 – Australasian studies	
	Modern languages: European	JACS principal subject group R – European languages, literature and related subjects	
Arts, humanities and social sciences	Agriculture and forestry	JACS principal subject group D, excluding subject line D1, D2 – Veterinary sciences and D7 – Agricultural sciences	
	Architecture, building and planning	JACS principal subject group K – Architecture, building and planning	
	Business, management and administrative studies	JACS principal subject group N – Business and administrative studies	
	Creative arts and design	JACS principal subject group W – Creative arts and design	
	Education	JACS principal subject group X – Education	
	Geography	JACS subject lines F8 – Physical geographical sciences, L7 – Human and social geography	
	Humanities and language-based subjects		JACS principal subject group Q – Linguistics, classics and related subjects; JACS principal subject group V – Historical and philosophical studies
			JACS subject lines T7 – American studies and T8 – Australasian studies
	Media studies	JACS principal subject group P – Mass communications and documentation	
	Nursing and subjects allied to medicine	JACS principal subject group B, excluding subject lines B1 – Anatomy, physiology and pathology, B2 – Pharmacy, pharmacology and toxicology	
	Psychology	JACS subject line C8 – Psychology	
	Social studies		JACS principal subject group L – Social, economic and political studies, excluding JACS subject line L7 – Human and social geography
			JACS principal subject group M – Law
		Sports science	JACS subject line C6 – Sports science
Unknown and combined subjects	Combined	JACS principal subject group Z	

3. Table C2 shows the proportion of qualifiers in each UG subject area by their PG subject area. The rows do not sum to 100 per cent, as the table does not display the percentage of qualifiers who do not transition. For students not remaining in their UG subject area, the most common PG subject areas were education, social studies and nursing, and subjects allied to medicine.

Table C2 Five-year transition rates (percentage) to all levels of PG by qualifying subject and postgraduate subject

Qualifying subject	Agriculture and forestry	Architecture, building and planning	Business, management and administrative studies	Creative arts and design	Education	Geography	Humanities and language-based subjects	Media studies	Nursing and subjects allied to medicine	Psychology	Social studies	Sports science	Medicine and dentistry	Veterinary sciences	Modern languages: Eastern, Asiatic and African	Modern languages: European	Anatomy, physiology and pathology	Biological sciences	Chemistry and materials science	Computer sciences	Earth, marine and environmental sciences	Engineering and technology	Mathematical sciences	Pharmacology, toxicology and pharmacy	Physics and astronomy	Combined
Agriculture and forestry	5				4				1					1				3								
Architecture, building and planning		23	1	1	1						0											1				
Business, management and administrative studies			6	0	2	0	0	0	0	0	1	0								0		0	0			
Creative arts and design			1	7	6	1	1	1	0	0	0									0		0				
Education					24				0	0	1															
Geography	1	5	3	12	8	0	0	0	0	0	3							1	0		3	1				
Humanities and language-based subjects		0	2	1	12	0	12	3	1	0	4		0		0	0		0		0	0	0				
Media studies			1	2	4		1	3			1															
Nursing and subjects allied to medicine			1		3				15	0	1	2					1	1	0			0			0	
Psychology			2	11			0	0	5	16	3	0	2				0	0		0	0	0				
Social studies		0	3	0	5	0	1	1	1	1	15	0			0	0		0		0	0	0	0			
Sports science			1		15				2	0	0	7					2									
Medicine and dentistry			1		3				3		0		7			1										
Veterinary sciences														11												
Modern languages: Eastern, Asiatic and African					5		5				6				5											
Modern languages: European		0	2	1	14		6	1	1	3					4											
Anatomy, physiology and pathology			1		4				5	1	1	4					5	1						1		
Biological sciences	1	0	1	9	1	0	0	0	4	0	1	0	5			2	13	1	0	1	1	1	1	1	0	
Chemistry and materials science			1		10				1		1					2	20	20	7		1	4	1	1	2	
Computer sciences			1	0	3		0				0								7			1				
Earth, marine and environmental sciences	1		1	1	5	3														20	4					
Engineering and technology		1	1	1	2		0	0	0	0	0									1	13					
Mathematical sciences			3		13				7		1						1	1	1	1	1	1	10		1	
Pharmacology, toxicology and pharmacy					2						1	2					1	1	1					24		
Physics and astronomy			1		8						1	1								2	1	2	5	2	23	
Combined			3		9		3				5									1	2	1	2	5	2	

Note: Proportions with fewer than 23 students in either the numerator or the denominator have been suppressed.

Annex D: Definitions

1. This annex explains some of the groupings and abbreviations used in the report.

Methodology for institutional groupings

2. Higher education institutions (HEIs) are grouped as either specialist institutions, institutions with high average tariff scores, institutions with medium average tariff scores, institutions with low average tariff scores or unclassified institutions. The following method was used to create these groupings:
 - a. Specialist institutions (HEIs where at least 60 per cent of provision is concentrated in one or two subjects) were identified first, and the remaining institutions were ranked by average tariff score then grouped into thirds.
 - b. English HEIs were grouped using the average tariff score of their UK-domiciled, under-21, undergraduate entrants in the 2011-12 academic year.
 - c. Institutions in the top third were grouped as HEIs with high average tariff scores, and those in the bottom third were grouped as HEIs with low average tariff scores.

Methodology for enhanced degree marker

3. Enhanced degrees are undergraduate degrees that include an additional year of study and result in a student graduating with a masters level degree. They are also known as 'integrated masters' courses. Undergraduate degrees with the following 'qualification obtained' codes have been grouped as enhanced degrees (any other 'qualification obtained' codes were classed as traditional degrees):
 - a. H22: First degree with honours on the enhanced or extended pattern but at first degree level⁷.
 - b. M22: Integrated undergraduate and postgraduate taught masters degree on the enhanced or extended pattern.
 - c. M26: Integrated undergraduate and postgraduate taught masters degree on the enhanced or extended pattern, leading towards eligibility to register to practice with a health, social care or veterinary statutory regulatory body.
 - d. M28: Integrated undergraduate and postgraduate taught masters degree on the enhanced or extended pattern, leading towards registration with the Architects Registration Board (Part 1 and Part 2 qualification).
4. While enhanced degrees mean that students qualify with a postgraduate level degree, they are counted in this analysis as undergraduate qualifications.

Details of groupings

5. Groupings have been compiled using various Higher Education Statistics Agency (HESA) fields. For Table D1, detailed ethnic groups come from HESA's 'ETHNIC' field. For Table D2, a detailed disability group has been created using the HESA field 'DISABLE',

⁷ Defined by HESA as Level H. Details can be found at https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=15051&href=a^_COURSEAIM.html.

and for Table D3 details of major sources of funding come from HESA's field 'MSTUFEE'. Further details for all of these groupings can be found at https://www.hesa.ac.uk/index.php?option=com_studrec&task=show_file&mnl=15051&href=a/index.html.

Table D1 Ethnicity grouping

Broad ethnic grouping	Ethnic groups	Detailed ethnic groups	
White	White	White	
		White – Scottish	
		Irish Traveller	
		Gypsy or Traveller	
		Other White background	
Black and minority ethnic	Black	Black or Black British – Caribbean	
		Black or Black British – African	
		Other Black background	
	Asian	Asian or Asian British – Indian	
		Asian or Asian British – Pakistani	
		Asian or Asian British – Bangladeshi	
		Other Asian background	
	Chinese	Chinese	
	Arab	Arab	
	Other (including mixed)		Mixed – White and Black Caribbean
			Mixed – White and Black African
			Mixed – White and Asian
Other mixed background			
Other ethnic background			
Unknown	Unknown	Not known	
		Information refused	

Table D2 Disability grouping

Disability status	In receipt of Disabled Students' Allowance (DSA)	Detailed disability group
Disabled	Yes	N/A
	No	Blind or partially sighted
		Deaf or hearing impaired
		Wheelchair user or mobility difficulties
		Personal care support
		Mental health difficulties
		An unseen disability (such as diabetes, epilepsy or asthma)
		Multiple disabilities
		Autistic Spectrum Disorder
		A specific learning difficulty (such as dyslexia)
A disability not listed above		
Not disabled	No	No known disability

Note: Students with unknown DSA status or disability status are grouped with 'No DSA' and 'No known disability' respectively.

Table D3 Fee state grouping

Fee state	Sub-group	Details of major source of funding
Not funded	No financial backing	No award or financial backing
Funded	Research council	Biotechnology and Biological Sciences Research Council
		Medical Research Council
		Natural Environment Research Council
		Engineering and Physical Sciences Research Council
		Economic and Social Research Council
		Arts and Humanities Research Council
		Science and Technology Facilities Council
		Research council – not specified
		Local government
		Paid in full by Student Awards Agency for Scotland or SLC; includes where fee is paid directly to provider

Fee state	Sub-group	Details of major source of funding
Funded (continued)	Local government (continued)	Paid in full by the Department for Employment and Learning Northern Ireland or the Northern Ireland Education and Library Boards (via the SLC) (includes EU students in Northern Ireland) Provider waiver of support costs
	Institution	Local Government – Channel Islands and Isle of Man, or Scottish Further Education Bursaries Fee waiver under government unemployed students scheme No fees
	Charity or British Academy	British Academy International agency Cancer Research UK Wellcome Trust Other Association of Medical Research Charities charity Other charitable foundation
	Other government	Departments of Health, NHS or Social Care Departments of Social Services Department for Business, Innovation and Skills Other HM government departments and public bodies Scholarship of HM forces Scottish Enterprise Network, Highlands and Islands Enterprise or local enterprise companies Local Education Authority training grants scheme Department of Agriculture and Rural Development for Northern Ireland Scottish Local Authority – discretionary award Overseas Research Students Awards Scheme
	Overseas	European Commission Overseas student award from HM Government or British Council Overseas government Department for International Development Overseas provider Overseas industry or commerce Other overseas funding Other overseas – repayable loan

Fee state	Sub-group	Details of major source of funding
Funded (continued)	UK industry	UK industry or commerce
		Student's employer
		Fees paid under part-time graduate apprentice study programme
	Joint – Student and other	Mix of student and SLC (following assessment by English or Welsh local authority, or SLC for EU students studying in England and Wales)
		Mix of student and Student Awards Agency for Scotland or SLC
		Mix of student and Department for Employment and Learning Northern Ireland or Northern Ireland Education and Library Boards (via SLC)
	Other	Absent for year
		Further education student – New Deal
		Other
		Not known

Annex E: Abbreviations and terminology from the main report

BME	Black and minority ethnic
EU	European Union
HEFCE	Higher Education Funding Council for England
HEI	Higher education institution
HESA	Higher Education Statistics Agency
JACS	Joint Academic Coding System, a system of grouping subject areas
Mature	Students aged 21 and over at the commencement of their undergraduate study
OPG	Other postgraduate courses (not classified as 'postgraduate research' or 'postgraduate taught')
PG	Postgraduate – studying for a course which typically has a first degree or equivalent as a prerequisite
PGCE	Postgraduate Certificate in Education ⁸
PGR	Postgraduate research courses, such as PhDs
PGT	Postgraduate taught courses, such as MScs and MBAs, not including professional certificates and diplomas such as PGCEs and legal practice courses
POLAR	Participation of Local Areas, a classification of geographical areas based on rates of participation in higher education by young people
SLC	Student Loans Company
STEM	Science, technology, engineering and mathematics
UG	Undergraduate – studying for a course at bachelors degree or equivalent level
Young	Students aged under 21 at the commencement of their undergraduate study

⁸ This does not include Professional Graduate Certificates in Education.