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Issues paper

This report is for information

This is the first report in a projected regular series providing information about the postgraduate sector in England and Northern Ireland. It sets out numbers and trends in postgraduate provision over the last 10 years, and summarises the work of HEFCE and others over the past year to enhance the evidence base for this part of the higher education sector.

Postgraduate education in England and Northern Ireland

Overview report 2013

Contents

Foreword from Sir Alan Langlands.....	2
Executive summary	3
Purpose.....	3
Key points	3
Action required.....	5
Introduction.....	6
Section 1: Background – a new approach to postgraduate funding and policy	6
What is postgraduate provision?	7
Why are postgraduate qualifications important?	8
Development of postgraduate policy	8
HEFCE’s approach to postgraduate policy	13
Section 2: The state of the postgraduate sector – current trends	15
Numbers and modes	16
Student characteristics	18
Subjects studied	26
Institution type.....	27
The student experience	29
Quality and standards.....	34
Transition rates into postgraduate study	35
Outcomes from postgraduate study	40
Evidence from institutions.....	44
Section 3: Building up evidence about the postgraduate sector	45
Financial issues	46
Information for postgraduate students.....	48
Fair access and social mobility.....	50
Attitudes to postgraduate education and indicators of demand.....	50
Employability and impact of postgraduates.....	51
International comparisons	52
Section 4: Conclusions and future work.....	52
Conclusions from this report.....	52
HEFCE responsibility and policy development	54
Continuing work on the postgraduate cross-cutting theme.....	56
Annex A: Types of postgraduate provision	57
Taught programmes	59
Professional courses	60
Research programmes	60
Bibliography.....	62
List of abbreviations	65

Postgraduate education in England and Northern Ireland: Overview report 2013

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Foreword from Sir Alan Langlands

This report focuses on current trends in postgraduate education in England. It summarises the first 18 months of work carried out by our new postgraduate team, established to tackle an area that impacts on HEFCE's core interests in education, research, and knowledge exchange, and on the success and sustainability of universities and colleges.

Postgraduate education is receiving an unprecedented amount of attention and comment, not only within the sector itself but in Government and the national media. The vital contribution that postgraduates make to the economy and society – and hence the extent of what would be lost if this provision were threatened – is widely recognised.

As a funder, HEFCE needs to ensure that postgraduate provision is sustainable, but we have a broader interest in promoting the interests of, and opportunities for, postgraduate students, including their progression into research and other careers requiring the highest levels of knowledge and skills. We have, therefore, been proactive in our support of postgraduate provision, deciding in 2012 to maintain funding support for taught postgraduate education, notwithstanding the reductions to our overall teaching funding, and to increase our funding for postgraduate research.

This report responds in part to a request from the Government to improve the evidence base for this part of the sector, and we continue to carry out and commission a considerable amount of work in this area. HEFCE occupies a unique position that enables us to engage with a range of public and private organisations, higher education institutions, Government, the Research Councils and the national academies. This report is intended not only to summarise our own work, but to draw together the contributions that have been made by others during the last year.

The postgraduate sector represents a central, thriving and successful part of higher education. It has enjoyed many years of growth and has an excellent national and international reputation. However, we cannot be complacent and there is considerable work to be done to sustain the progress made. As well as continuing the research and analysis described in this report, the HEFCE Board has agreed to provide additional funding to support projects that will test and disseminate effective practice in the postgraduate sector, which we hope will provide a platform for further success.

Executive summary

Purpose

1. This is the first report in a projected regular series providing information about the postgraduate sector in England and Northern Ireland. It sets out numbers and trends in postgraduate provision over the last 10 years, and summarises the work of HEFCE and others over the past year to enhance the evidence base for this part of the higher education sector.
2. This report has been produced as part of HEFCE's response to requests from the Government, through the 2011 White Paper 'Students at the heart of the system' and the 2012 grant letter to HEFCE, that we should gather evidence to improve our understanding of the postgraduate sector. These requests were made as postgraduate education was coming under intense scrutiny from the higher education sector, Government and parliament, and the wider public. The reforms to the undergraduate funding model – moving to a system in which grants to universities have predominantly been replaced by loans to students, repayable above a threshold level of earnings – raised concerns that postgraduate funding had been forgotten, and that the increased debt incurred in undergraduate study might dissuade students from further study at a higher level. Alongside this, there was a view that while there was a great deal of data held on the postgraduate sector, they had not been routinely analysed, and there were some areas where information was patchy or absent.
3. HEFCE's response was to establish a new postgraduate strand of activity, cutting across our core policy interests in widening participation and research and knowledge exchange. We began systematically to analyse the data we held on postgraduate provision, and commissioned work to address some information gaps. We also began to engage more actively with work being undertaken in and beyond the sector to investigate key concerns in postgraduate provision, and we sought opportunities to discuss the issue with sector representatives.
4. This report gives the results of this first year of work. It should be considered in conjunction with our report on trends in transition from first degree to postgraduate study, 'Trends in transition from first degree to postgraduate study: Qualifiers between 2002-03 and 2010-11' (HEFCE 2013/13), which sets out one key strand of quantitative data in more detail.

Key points

5. The data that we have investigated show that after a period of steady growth, there have been some recent declines in postgraduate student numbers. This is particularly true in postgraduate taught (PGT) programmes, which are mainly masters degree courses, and in 'Other postgraduate' (Other PG) courses, which are mostly regulated vocational courses in areas such as education and healthcare, including postgraduate certificates of education (PGCEs).
6. The majority (71 per cent) of postgraduate research (PGR) students study full-time. Part-time study is more significant for PGT and Other postgraduate, accounting for 43 and 68 per cent of these groups respectively. However, these areas are showing the greatest decline in student numbers. We do not yet know all of the reasons for these declines, although reductions in public sector training and the broader effects of the recession may well be factors.
7. The majority (59 per cent) of all postgraduate students are aged over 25 on entering study. This comprises 62 per cent of PGR students, 53 per cent of PGT and 70 per cent of Other postgraduate students. Recent trends show that people are beginning postgraduate studies at a

younger age than they did 10 years ago, perhaps (in the context of higher levels of undergraduate participation) to gain an advantage in the jobs market. Most students, however, take a break of at least a year between undergraduate and postgraduate study. The likelihood of studying part-time also increases with age: in 2011-12, part-time students aged over 25 accounted for 26 per cent of PGR entrants, 35 per cent of PGT entrants and 57 per cent of Other postgraduate entrants.

8. International students have contributed a great deal to the growth of postgraduate education. They make up over a quarter of all postgraduate numbers, but in certain subject areas they are more than half of the cohort, which carries risks if the international market declines.

9. Concern has been raised in the sector about limited access to finance for postgraduate students, who are not eligible for student loans. Our work shows that most students are self-funded, especially on taught courses. The majority of PGT students (72 per cent) have no financial backing and so must finance their studies themselves or via a bank loan. Not all students are eligible for the loans available, and take up is low even by those students who are, perhaps because of the repayment terms which are harsh compared to the undergraduate student loan.

10. As a masters degree is increasingly an entry requirement for doctoral degrees (though this varies between subjects), this has been identified as a 'broken bridge' between undergraduate and research degrees, and a potential constraint on the future diversity of researchers. PGR and Other postgraduate students have a wider range of funding sources, but around 40 per cent of students in each of these groups have no external source of finance. Only 15 per cent of PGR students receive Research Council funding.

11. We are seeking to ascertain what barriers there might be to participation in postgraduate study. Initial work shows that levels of enrolment in postgraduate study differ according to socio-economic background, school background and the institution of undergraduate study. The issue of affordability is an obvious concern, and there is some evidence that it is increasingly the better off who engage in postgraduate study, especially masters or PhDs. This has potential implications for fair access and social mobility. Work in these areas will be a priority for us in the coming year.

12. Surveys show that postgraduate students are positive about their learning experience, and benefit from it in terms of better skills and employability, as well as from a 'postgraduate premium' on earnings. This premium is one manifestation of the value that employers place on postgraduate education, as a source of professional training and accreditation, a supply of the highest level of scientific knowledge and technical skills, and a means for developing and motivating staff. However, the impact of postgraduates on the economy and on society could be better quantified, and we are working with other organisations to investigate this further.

13. We have initiated several work strands to address gaps in information about postgraduate study, to report during 2013-14. They include:

- a. More systematic gathering, through the Higher Education Statistics Agency record, of the fees charged by institutions for PGT courses. HEFCE is maintaining funding for this provision at its level prior to the undergraduate reforms, on the assumption that the absence of student finance will prevent comparable fee increases. This market is,

however, deregulated and fees are very variable, with obvious implications for access. Fees for PGR courses tend to be held at the fee levels paid by Research Councils.

- b. Investigation of the costs of postgraduate taught courses using the Transparent Approach to Costing (TRAC) methodology.
- c. Investigation of the information needs of taught postgraduate students.
- d. Consideration of different approaches to student finance, taking into account the loan schemes proposed by bodies such as the National Union of Students, and of the contribution HEFCE can make to identifying, supporting and disseminating good practice in facilitating access to postgraduate study.
- e. Working to understand student motivation through the introduction of an 'intentions after graduation' survey linked to the National Student Survey.
- f. Research to compare postgraduate provision in other countries with that in England, to determine examples of good practice.

14. We are also involved in work led by others, including a Research Councils UK project to investigate the long-term impact of doctoral graduates in the workplace, Universities UK's research into employers' views about masters graduates and the Department of Business, Innovation and Skills' research into historical demand for postgraduate provision.

15. While our work has demonstrated the significance and vitality of the postgraduate sector, we cannot be complacent. Action is needed to support students and the sector, and thereby to ensure the continued success and sustainability of postgraduate education. HEFCE has a key role, not only as a public funder and policy maker, but as an organisation with access to the data and relationships necessary to establish an overview of what is happening in the sector and bring interested parties together. This cannot, however, be the responsibility of the Government alone. Others with an interest in postgraduate study – including institutions, industry, the professions and banks, as well as students themselves – must also contribute.

16. During 2013-14, we will make £25 million available in a competitive bidding initiative for proposals that will link HEFCE with institutional and other sources of finance to test different ways of stimulating the domestic taught postgraduate market. Projects will be undertaken during 2013-14 and 2014-15, to inform discussions about policy and funding approaches in 2015-16, when the first undergraduates paying higher fees will enter postgraduate education.

17. During the next year, we will continue to gather and analyse new evidence and involve others in developing our policy and funding approaches, as well as maintaining an oversight of other work. We welcome further comments and engagement from all interested parties as we continue to work on this complex and dynamic area of higher education.

Action required

18. This document is for information only.

Introduction

19. The postgraduate sector in the UK is coming under intense scrutiny. Widespread concern over potential funding cuts, and the possible effects of increased undergraduate fees on postgraduate demand, have brought postgraduate provision to the forefront of academics' and policy-makers' thinking.

20. HEFCE is engaging with this issue, and we have identified postgraduate provision – both taught and research – as a 'cross-cutting theme' of our policy-making. After providing additional funding to support this part of the sector, we have sought out opportunities to discuss its future with institutions, representative bodies and Government. We are now working to gather evidence on trends in supply and demand in postgraduate provision and to identify options for the future.

21. This report brings together the currently available evidence to show that overall postgraduate numbers are being maintained and that students, universities, society and the economy are benefiting from the opportunities this education provides. There are real risks to be addressed, however, and this will require all of the interested parties – institutions, HEFCE, other parts of Government, industry and others – to work together. Our aim is to work with these parties to secure a successful and sustainable postgraduate sector from 2015-16, when the first undergraduates paying higher fees will enter postgraduate education.

22. This report is intended as the first of a series on the position of, and changing patterns in, the postgraduate sector. It sets out an initial analysis of the postgraduate landscape, bringing together key data and a summary of the work that HEFCE and others have undertaken in the last year. It should be considered in tandem with our report on transitions into postgraduate study, which contains more detailed data and analysis on the flow of students from first degree qualification into the postgraduate sector¹. We hope that these reports will help to improve understanding of the very wide range of postgraduate provision in England, and thereby help institutions and Government to plan for the future. We intend to build on the results of this work and use it to inform policy debate during the next 12 months.

Section 1: Background – a new approach to postgraduate funding and policy

Summary

- Postgraduate study involves learning at a higher level than an undergraduate degree. We use three categories to describe postgraduate provision: postgraduate research (PGR), postgraduate taught (PGT) and 'Other postgraduate' (Other PG), which includes regulated provision.
- Postgraduate qualifications benefit the individual, economy and society, and are an important draw for international students.

¹ 'Trends in transition from first degree to postgraduate study: Qualifiers between 2002-03 and 2010-11' (HEFCE 2013/13), available at www.hefce.ac.uk/pubs/year/2013/201313/.

- Postgraduate provision has been largely unregulated in the past and has not been subject to a great deal of public scrutiny. The 2011 White Paper, which announced funding reforms in the undergraduate sector, raised questions about potential knock-on effects in the postgraduate sector, resulting in considerable public debate.
- In the January 2012 grant letter, the Department for Business, Innovation and Skills (BIS) asked HEFCE to take the lead on gathering evidence to improve understanding of postgraduate study. HEFCE has established postgraduate provision as a cross-cutting policy theme linking many areas of work.
- HEFCE has initiated several work strands to research aspects of the postgraduate sector such as fees and costs, information needs, fair access, outcomes and impact, and international comparisons, to inform future policy.
- HEFCE has maintained both PGT and PGR funding for the short term and intends to preserve this in the future, informed by our work strands.

What is postgraduate provision?

23. In discussing ‘postgraduate’ provision, we are referring to study which involves learning at a higher, more challenging level than an undergraduate degree. This provision is classified as at level 7 or 8 in the Quality Assurance Agency for Higher Education (QAA)’s Framework for Higher Education Qualifications (FHEQ), or as second or third cycle in the Framework for Qualifications of the European Higher Education Area². All UK qualifications adhere to European requirements, in particular the Bologna framework, which remains an important consideration for UK postgraduate provision. In framing our policies, we take a broad and inclusive approach to postgraduate provision, and consider all types and levels, including those which HEFCE does not fund directly.

24. Level 7 qualifications include Masters degrees (such as MSc and MA) and postgraduate diplomas and certificates. These are generally taught programmes, although they may have a research element. Level 8 qualifications are doctoral degrees such as PhDs or DPhils. These require a greater amount of independent study, and research and analysis skills.

25. A more detailed explanation of postgraduate qualifications, based on QAA qualifications descriptions, is at Annex A.

26. Throughout this report, we describe and analyse postgraduate data using three categories:

- postgraduate research – PhD and MPhil courses

² Quality Assurance Agency, ‘The framework for higher education qualifications in England, Wales and Northern Ireland’, August 2008, available online at www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/The-framework-for-higher-education-qualifications-in-England-Wales-and-Northern-Ireland.aspx. Other useful information is in QAA’s ‘Masters Degree Characteristics’, March 2010, available at (www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Masters-degree-characteristics.aspx) and ‘Doctoral Degree Characteristics’, September 2011, available at (www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Doctoral_characteristics.aspx).

- postgraduate taught – taught masters, including MBA and MRes³
- Other postgraduate, which can be split into two groups:
 - regulated postgraduate, including Postgraduate Certificates of Education (PGCEs) (these make up about 19 per cent of ‘Other postgraduate’) and professional postgraduate courses such as health, social care or architecture
 - non-regulated postgraduate such as certificates and diplomas.

27. A further category is ‘enhanced undergraduate’, referring to integrated masters courses. Students on these courses are usually reported as undergraduates, and they are funded through student loans and teaching grants on that basis. Nonetheless, we are monitoring numbers on these courses to understand any changing patterns.

Why are postgraduate qualifications important?

28. A postgraduate qualification benefits the individual student, intellectually, through personal stimulation, and instrumentally, through enhanced skills and employment prospects. However, the benefits are much wider than this.

29. Postgraduates are vital to the higher education (HE) sector, through their contribution to current research and as researchers of the future. The UK has a strong research base and is recognised as a world leader in research, with a robust international reputation. In 2010, the UK produced 13.8 per cent of the world’s top centile of most highly cited papers, a share second only to the US’s 55 per cent⁴.

30. Outside academia, postgraduates provide employers with the highest levels of knowledge, innovation and technical skills, and are increasingly entrepreneurial. Society also benefits from highly educated citizens who value open debate and bring innovative approaches to problems, and more specifically from the skills of health and social care workers, lawyers, architects and other professions for which a postgraduate qualification is required.

31. As well as helping to maintain the UK’s standing in research, postgraduate courses attract thousands of EU and international students every year. These students benefit the UK’s economy and culture during their stay, and play a vital role as ambassadors and advocates for UK education when they return home.

Development of postgraduate policy

32. While undergraduate provision has been the subject of a great deal of political debate in the past decade, resulting in successive changes to the funding settlement, postgraduate education has largely been left alone. Postgraduate provision has been subject to increasing expectations regarding research training and career development, but it has not been subject to fee, access or student number regulation in the manner of undergraduate provision. This has enabled institutions to operate dynamically and flexibly to grow their markets, but has also

³ The MRes qualification contains taught and research elements. HEFCE encourages institutions to record MRes students as ‘taught’ for funding purposes, but some institutions may return them as research students.

⁴ ‘International comparative performance of the UK research base – 2011: A report prepared for the Department of Business, Innovation and Skills’, Elsevier, October 2011, available at <https://www.gov.uk/government/publications/uk-research-base-international-comparative-performance-2011>

yielded some questions of public interest about the character and future of postgraduate education.

33. Before the recent attention to postgraduate provision there were two particularly significant policy statements. In 2002 Sir Gareth Roberts published his review report 'SET for Success: The supply of people with science, technology, engineering and mathematics skills'⁵. The review found that there was strong demand for graduates and postgraduates in these subjects, but that there was a mismatch between their skills and the skills needs of employers. Roberts recommended that postgraduate students, in particular PhD students, needed to acquire more transferable skills to prepare them for employment. He also made recommendations about stipends and the length and nature of PhD programmes. As a result of the review, Research Councils UK (RCUK) made £120 million of funding available (often referred to as 'Roberts money') to develop training for researchers in transferable skills. This funding was originally ring-fenced, but was embedded into normal research council funding after March 2011.

34. In March 2010, at the request of the previous Government, Sir Adrian Smith chaired a formal investigation into the benefits of postgraduate education, resulting in the report 'One step beyond: Making the most of postgraduate education'⁶. This provided an overview of the sector and considered the benefits of postgraduate study to individuals and society, as well as funding and access issues. Recommendations from the report included reviewing funding, providing more comprehensive information to students, and learning more about widening access, which have been key themes in the activities that have followed.

35. In October 2010 Lord Browne's report, 'Securing a sustainable future for higher education' was published, also at the request of the previous government⁷. This made recommendations for undergraduate funding which set the scene for the undergraduate fees and finance reforms from 2012-13. Postgraduate provision, however, was not prominent in the recommendations. The report stated that 'Postgraduate education is a successful part of the higher education system and there is no evidence that changes to funding or student finance are needed to support student demand or access.' Its rationale for this was that a taught postgraduate qualification was considered to provide greater private than public benefit and generated private investment. The report did observe that increased undergraduate fees might make students less likely to participate in postgraduate study, however, and advised that trends should be monitored. The current Government's response to the Browne report informed part of the funding reforms set out in the White Paper 'Students at the heart of the system'⁸.

⁵ 'SET for success: The supply of people with science, technology, engineering and mathematics skills', April 2002, available at www.hm-treasury.gov.uk/ent_res_roberts.htm

⁶ 'One step beyond: Making the most of postgraduate education', March 2010, available at www.bis.gov.uk/postgraduate-review

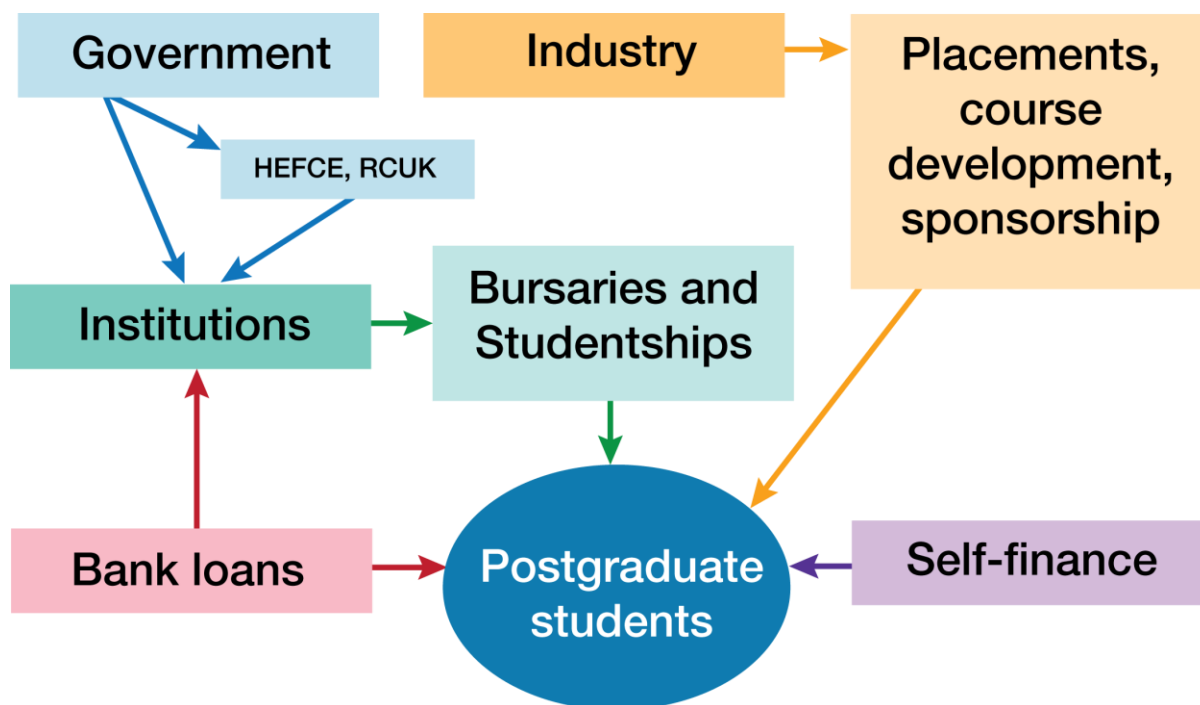
⁷ 'Securing a sustainable future for higher education: An independent review of higher education funding and student finance', October 2010, available at <https://www.gov.uk/government/publications/the-browne-report-higher-education-funding-and-student-finance>

⁸ 'The Government's response to Lord Browne's Review', June 2011, available at <https://www.gov.uk/government/publications/higher-education-government-response-to-lord-brownes-review>

Funding reform: the 2011 White Paper and concerns for postgraduate funding

36. Both PGT and PGR provision are funded from a mixture of sources, of which HEFCE funding is only one element. Figure 1 shows the funding sources for these areas. As will be seen in Section 2, funding from students in the form of fees is an important element which we are not yet able to quantify (although we are now gathering this information for PGT students). This individual element is much more significant for PGT than for PGR. There is also an important contribution from Government, business and charitable sponsors, which again we cannot yet quantify in full.

Figure 1. Funding flows into postgraduate education



37. Prior to 2012-13, funding for PGT provision was allocated using a similar method as for undergraduate provision: a formula based on student numbers and their mix between different subject areas. For non-regulated PGT we adopted a higher fee assumption than for undergraduate provision (£3,670) and provided funding for the higher price bands A to C⁹.

38. The June 2011 White Paper, 'Students at the heart of the system', announced significant changes to the funding method for the undergraduate sector for 2012-13¹⁰. Specifically, the majority of teaching funding is no longer provided through HEFCE but directly to the student in the form of a loan, repayable once the student begins earning over £21,000 per annum.

39. When this new system was announced, the expectation was that PGT funding would be reduced in the same manner as undergraduate funding, but without the equivalent availability of student loans. This prompted immediate and widespread concerns that this provision could

⁹ 'Recurrent grants for 2011-12' (HEFCE 2011/07), available at www.hefce.ac.uk/pubs/year/2011/201107/

¹⁰ 'Students at the heart of the system', June 2011, available at

<https://www.gov.uk/government/publications/higher-education-students-at-the-heart-of-the-system--2>

become financially unsustainable, or that institutions might have to substantially increase fees to compensate for the reduction in HEFCE funding, with potential consequences for accessibility. There were also concerns about knock-on effects for PGR, if students were unable to access the masters courses providing an entry route for many research programmes.

40. PGR is funded via the 'dual support' system, with some funding coming from HEFCE and some from the Research Councils. HEFCE funding for PGR is part of the overall research funding, based on the quality, volume and relative cost of research in different areas. The HEFCE stream of funding for research degree programmes is to help universities and colleges meet the costs of supervising these programmes and is allocated to departments that will receive mainstream quality-related research funding. The calculation of the HEFCE stream takes into account quality profiles from the 2008 Research Assessment Exercise, and eligible PGR student numbers. Research Councils provide grants for postgraduate research training that include contributions to fees, project costs and maintenance grants (stipends). Research Council training grants may provide funding for multiple research students across a broad range of subjects or a focused research area, often defined strategically by the Research Council from the outset.

41. Notwithstanding this, there have also been some concerns for PGR funding. Although funding for science and research was protected within the spending review settlement, this represented a cut in real terms, and the level of PGR studentship support allocated by the Research Councils could be expected to suffer. In this tougher climate, HEFCE and Research Council funding for research postgraduates is being awarded more selectively, and there is a degree of concentration through such approaches as doctoral training centres, which may have implications for accessibility by some students.

Other risks and concerns for postgraduate provision

42. Alongside funding issues, a number of other risks to postgraduate provision and participation have been identified during this period, through reports, the media and our own work with institutions. These include:

- a. The risk that increased student debt from undergraduate study could deter students from postgraduate study, in the absence of comparable finance for postgraduate students.
- b. Increasing competition from other countries as they expand their provision, including courses delivered in English. This is a particular concern as international students form a high proportion of postgraduates (see Section 2) and many programmes would not be viable without them.
- c. Changes made to visa and immigration arrangements by the UK Border Agency, coupled with recent high-profile coverage of institutions' immigration sponsorship status, may mean that the UK may be perceived by international students as an unwelcoming country that is difficult to gain access to.
- d. Issues of fair access and social mobility. Historically, most work on fair access has concentrated on undergraduate admissions. Postgraduate study is now receiving increasing scrutiny from this angle, in part due to the perception that the poorest students may be deterred by increased undergraduate fees and debt.

43. If fewer people decide to undertake postgraduate study, this could have serious consequences for the UK economy and society, which benefit from a highly-educated section of

the workforce. Postgraduates contribute to the economy through the research, innovation, professional and entrepreneurial skills they provide in the workplace. Certain public-service jobs, such as teaching and social work, require postgraduate training, but provide a low rate of private return to the student. In the face of increased debt, graduates may prefer courses that are more likely to result in higher earnings, or enter the job market directly without undertaking further studies.

Government response

44. The Government has accepted the need for greater focus on postgraduate education. The 2011 White Paper included recommendations for responding to the 'One Step Beyond' report and the January 2012 grant letter to HEFCE from BIS made further specific requests with regard to postgraduate provision, as follows:

'We are pleased that the Council is taking the lead on gathering evidence to improve our understanding of the purpose and characteristics of, and outcomes from, postgraduate study, with the intention of reviewing postgraduate participation following the changes to undergraduate funding. We also note the progress the Council is making, with its HE Public Information Steering Group, towards identifying what further information might usefully be provided to prospective postgraduate students to help them make informed choices about what and where to study. Until the findings from this work become clear [...] the Council should in any case take steps as far as possible to support postgraduate provision.'¹¹

45. The January 2013 grant letter reiterated that Government wished HEFCE 'to continue to support postgraduate provision and review how it is impacted over the long term'¹².

Increased attention to postgraduate provision in 2012

46. Following the 2011 White Paper and the Government's January 2012 grant letter, the public debate around postgraduate provision increased significantly, both through the general media and independent reports, including the following¹³:

- a. The Higher Education Commission (HEC), an independent body made up of parliamentary, industry and sector representatives, carried out an extensive inquiry into the issues facing the postgraduate sector, publishing the resulting report in October 2012.
- b. The issue of how to fund postgraduate provision, including models of student loans for postgraduates, was the subject of publications from Centre Forum and the National Union of Students (NUS), as well as forming a section of the HEC report.

¹¹ 'Funding for higher education in England for 2012-13: HEFCE grant letter from BIS', 25 January 2012, available at www.hefce.ac.uk/news/newsarchive/2012/name.69495.en.html

¹² 'Funding for higher education in England for 2013-14: HEFCE grant letter from BIS', 14 January 2013, available at www.hefce.ac.uk/news/newsarchive/2013/name.76313.en.html

¹³ Media articles have included 'How about the Australian system for postgraduate funding?' (Don Nutbeam, *Guardian* 27 February 2012), 'Postgrads – at last you're on the agenda' (Harriet Swain, *Guardian* 28 February 2012) and 'University leaders protest at "disastrous neglect" of postgraduates' (Daniel Boffey, *Guardian/Observer* 5 January 2013).

- c. The House of Lords' inquiry into Science, Technology, Engineering and Mathematics (STEM) subjects reported in July 2012, reflecting specifically on the quality, employability and financing of postgraduate students¹⁴.
- d. The British Academy produced a position statement in July 2012 on 'Postgraduate funding: the neglected dimension' and has announced research into how student debt will affect postgraduate demand¹⁵.
- e. The Sutton Trust published a report in February 2013 by researchers from the London School of Economics, on how postgraduate qualifications affect social mobility¹⁶.
- f. The Higher Education Academy published a report in April 2013 by Paul Wakeling and Gillian Hampden-Thompson on factors affecting transition to higher degrees in the UK¹⁷.

47. All of this work has built a picture of a sector which has grown significantly, remains strong and enjoys an excellent international reputation. However, it also displays real anxiety about the sector's future, particularly with regard to funding and participation.

HEFCE's approach to postgraduate policy

Postgraduate policy as a cross-cutting theme

48. HEFCE has established postgraduate provision as a 'cross-cutting theme', recognising that it links together many areas of our work: learning and teaching, research, student opportunity, knowledge exchange, and indeed the success and sustainability of universities and colleges. The cross-cutting approach means that we can take a holistic overview of the postgraduate sector and ensure that our established work strands inform each other. We are also working with other organisations and individuals concerned with the postgraduate sector, including RCUK, Universities UK (UUK), Guild HE, Vitae and the UK Council for Graduate Education, and colleagues in BIS, to ensure that our approaches are complementary. Relevant projects will be outlined later in this document.

¹⁴ 'Science and Technology Committee – second report: Higher education in science, technology, engineering and mathematics (STEM) subjects', July 2012, available at www.publications.parliament.uk/pa/ld201213/ldselect/ldsctech/37/3702.htm

¹⁵ 'Postgraduate funding: the neglected dimension', July 2012, available at www.britac.ac.uk/templates/asset-relay.cfm?frmAssetFileID=11431

¹⁶ 'The postgraduate premium: Revisiting trends in social mobility and educational inequalities in Britain and America', Joanne Lindley and Stephen Machin, February 2013, available at www.suttontrust.com/research/the-postgraduate-premium/

¹⁷ 'Transitions to higher degrees across the UK: An analysis of national, institutional and individual differences', Paul Wakeling and Gillian Hampden-Thompson, April 2013, available at www.heacademy.ac.uk/resources/detail/Research/Postgraduate_transitions

Funding

49. In response to the request from Government to sustain our support for postgraduate provision, and following consultation the HEFCE Board decided to provide additional funding for PGT provision in 2012-13, effectively maintaining the levels prior to the undergraduate reforms¹⁸. Funding for postgraduate taught students is provided at the rates that apply to undergraduates receiving student finance, plus an additional £1,100 for all those in price groups A to C¹⁹. In 2012-13, this additional funding totalled around £33 million. We are also continuing to provide an allocation for 'accelerated and intensive provision', (PGT courses that are longer than the normal undergraduate year), for all PGT students in price groups B or C²⁰. This totals around £36 million annually. This means that in practice we provide around £11,000 for each student in price group A, £4,000 in price group B and £2,500 in price group C.

50. We continue to allocate research funding of around £1,600 million per year through the dual-support system and will maintain it, in cash terms, until 2014-15. We announced in November 2011 that we would reallocate funding from research activity assessed as 2* in the 2008 Research Assessment Exercise to activity assessed as 3* and 4*²¹. Half of the funding arising from this, £35 million, was devoted to the PGR supervision fund, increasing it from £205 million in 2011-12 to £240 million in 2012-13. This will support around 45,000 UK and EU postgraduate research students across all subject areas, with an average of around £4,500 for each student, although the level varies between £500 and £7,000 depending on the quality and cost of research within their unit. This reflects our policy to maintain student numbers and our commitment to training postgraduate researchers, while preferentially supporting provision in departments where research of the highest quality is undertaken.

Other work strands

51. In order to inform our policy and funding approaches in the future, we have instigated several work strands, summarized below, to help us build up evidence about the postgraduate sector.

- **Fees and costs:** We are seeking information from Higher Education Statistics Agency (HESA) data on what fees institutions are charging, and investigating PGT costs using the Transparent Approach to Costing (TRAC) methodology.

¹⁸ Student number controls and teaching funding: Consultation on arrangements for 2013-14 and beyond' (HEFCE 2012/04), available at www.hefce.ac.uk/pubs/year/2012/201204/

¹⁹ Historically, we have grouped cost centres into four price groups, which have attracted different rates of funding. Price group A covers clinical years of study for the subjects of medicine, dentistry and veterinary science; price group B covers laboratory-based subjects in science, engineering and technology; price group C (now split into two levels, C1 and C2) covers intermediate-cost subjects with a laboratory, studio or fieldwork element; and price group D covers classroom-based subjects such as humanities or social sciences. Explanations are available in HEFCE 2012/04.

²⁰ Further details of funding are available in 'Recurrent grants and student number controls for 2013-14' (HEFCE 2013/05), available at www.hefce.ac.uk/pubs/year/2013/201305/

²¹ 'Funding for universities and colleges for 2010-11 and 2011-12' (HEFCE Circular letter 05/2011), available at www.hefce.ac.uk/pubs/year/2011/cl052011/

- **Information for postgraduate students:** At the Government's request, we have commissioned research into the information needs of postgraduate students.
- **Fair access and social mobility:** We are analysing data to establish whether a student's socio-economic background makes a difference to whether and how they enter postgraduate study.
- **Demand for and attitudes towards postgraduate study:** We are piloting a survey associated with the National Student Survey (NSS), asking students about their intentions after graduation.
- **Employability and impact:** We are extending our understanding of how a postgraduate qualification benefits the individual, the economy and society by examining postgraduates' employment outcomes and their impact in the workplace. We are working jointly with UUK and RCUK on projects to investigate this.
- **International comparisons:** We are seeking to situate our developing knowledge of our own postgraduate system in an international context by commissioning work to compare patterns and approaches in England with those in other countries.

These are described in more detail in Section 3.

Communicating our work

52. We will continue to share our work with the sector and invite feedback, through publications and discussion at events. We will publish regular updates on our web-site at www.hefce.ac.uk/whatwedo/crosscutting/pg/.

Section 2: The state of the postgraduate sector – current trends

Summary

- This section provides quantitative data about the current state of the postgraduate sector, set against 10-year trends. It also provides qualitative information from existing research and surveys.
- The data show that postgraduate provision has grown significantly in the last 10 years, especially PGT provision (mostly masters). Much of this growth consists of increased numbers of international students in particular subject areas. However, both PGT and Other postgraduate (regulated provision, such as PGCEs) numbers have begun to decline recently.
- Most students enter postgraduate study between the ages of 21 and 25, and PGT entrants in particular are getting younger. However, 40 per cent of all postgraduate students are over 30, and the majority of these study part-time. Proportions of women, ethnic minorities and disabled students are increasing.
- Different institutional types show different balances between types of postgraduate study. PGR students tend to be concentrated in institutions with the highest tariff requirements for undergraduate entry.
- Most postgraduate students, especially PGT, are self-financed.

- Available evidence shows that postgraduate students are positive about their experience, with employability being a key motivating factor for study. Provision is generally considered to be of good quality.
- Rates of transition to postgraduate study increase with the time elapsed since undergraduate study – most students take a break before progressing to further study. Transition rates are affected by a number of factors including institution type, level of postgraduate provision, socio-economic background and school background, with clear implications for fair access.
- Postgraduate students are more likely to find employment than those with only a first degree, and are likely to earn more. However, this is dependent on subject studied and type of postgraduate qualification, with those studying for Other postgraduate qualifications most likely to be employed after six months.

53. In order to consider the future of the postgraduate sector, it is important to understand its present state and recent trends. HEFCE holds a large amount of data about postgraduate students, but they have not previously been interrogated in detail. In this section, we set out what we currently know about postgraduates in terms of numbers, subjects and socio-economic data, as well as some qualitative contextual information. Wherever possible we show trends for the last 10 years (2002-03 to 2011-12), to provide a context.

54. The data set out here provide an overview. Further detail can be found in our report on transitions into postgraduate study. We intend to publish data tables online later, so that readers can interrogate the data themselves.

Cautionary note on data: We are aware of a discontinuity in HESA data between 2010-11 and 2011-12, which is due to changes in reporting methods. The effect is that some trends may be overstated whereas others are understated. We are confident that the general directions of trends shown in the data are correct, however. We will have a more accurate picture next year.

Numbers and modes

55. In 2011-12, the most recent year of available data, there were 501,330 postgraduate students studying in institutions in England and Northern Ireland. Of these, 19 per cent were studying PGR programmes, 56 per cent PGT, and 25 per cent Other postgraduate (regulated programmes such as PGCEs).

56. Figure 2a shows trends in postgraduate study in the last 10 years. Total postgraduate student numbers have risen by 18 per cent in the period (compared with 16 per cent in undergraduate study), with the greatest increases being in masters degrees. However both masters and Other postgraduate have declined in the last year; only PGR study continues to grow.

57. Figure 2b splits the total numbers into study modes (full- and part-time). In 2011-12, 46 per cent of all postgraduate students studied part-time, compared with 28 per cent of undergraduates. However, there are differences according to study aim. 70 per cent of PGR students study full-time, whereas 70 per cent of Other postgraduate study is part-time. For taught masters, numbers of full-time and part-time students are roughly equal over the 10-year period,

but full-time numbers are growing faster (by 78 per cent over the period) and comprised about 60 per cent of taught masters students in 2011-12.

Figure 2a. Number of students enrolling on postgraduate courses at HEIs in England and Northern Ireland between 2002-03 and 2011-12 split by course aim

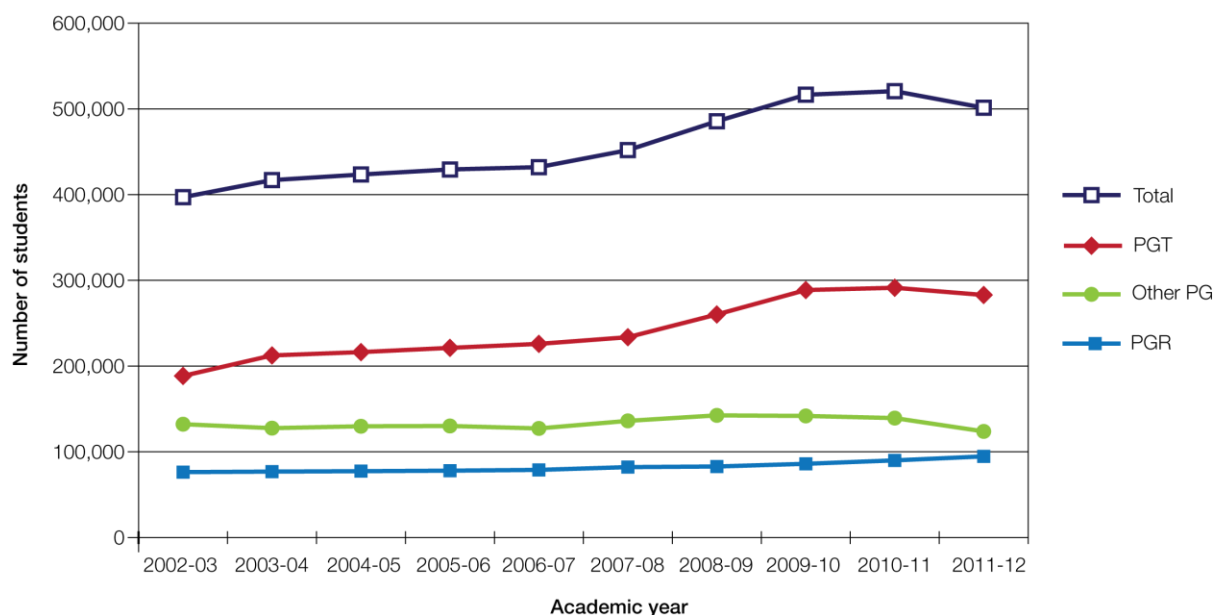
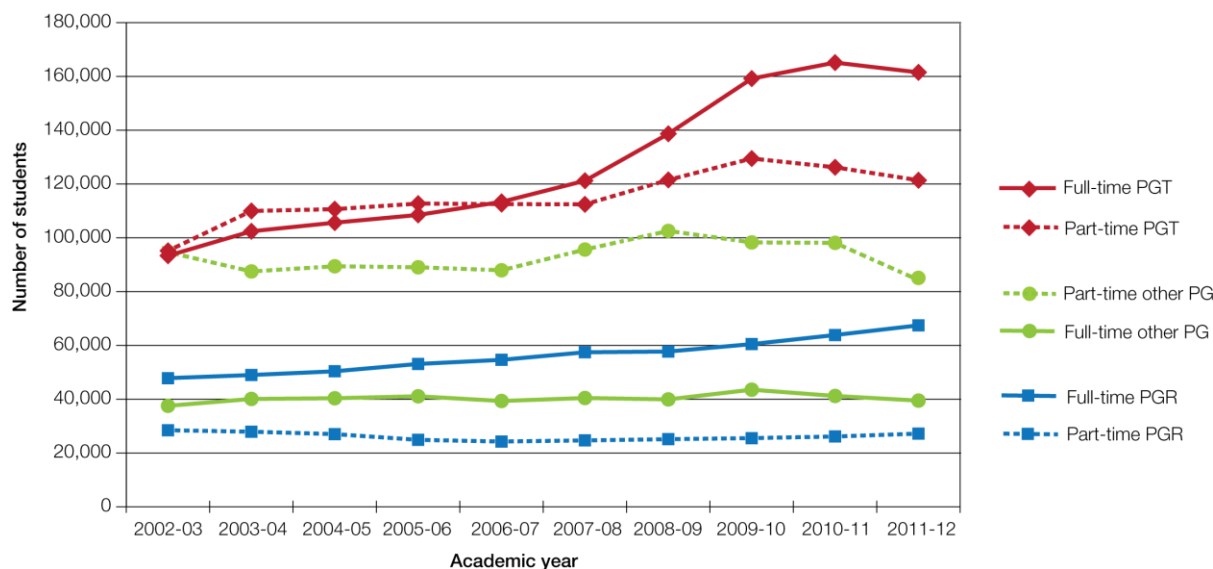


Figure 2b. Number of students enrolling on postgraduate courses at HEIs in England and Northern Ireland between 2002-03 and 2011-12 split by course aim and mode of study



58. Most of the growth in the full-time market is from international students. Declining numbers in recent years are most evident in part-time PGT and Other postgraduate. The vast majority of the 46 per cent of postgraduate students in England and Northern Ireland who study part-time are UK-domiciled and studying for PGT and Other postgraduate programmes.

59. Some of the recent decline may reflect a stabilisation after a period of growth, but in the case of part-time Other postgraduates, there has been a withdrawal of funding from some large-scale public service development programmes. Even accounting for this, however, there appears

to have been a decline in recruitment, and at present we cannot say if this is due to people being unable to afford to study (perhaps as a result of the recession), employers being unable to provide funding, or other reasons. We are working to secure a better understanding of this.

Student characteristics

60. It is important for HEFCE and the sector to monitor certain student characteristics for equality and diversity issues. Headline demographic data for the English postgraduate sector in 2011-12 are shown in Table 1, alongside undergraduate data for comparison. This appears to show similar characteristics for undergraduate and taught postgraduate study, except that research students are less likely than other students to be female while the reverse is true of Other postgraduate students, and Other postgraduate students and UK-domiciled PGR students are slightly less likely to be from an ethnic minority background. Postgraduate students appear less likely to be disabled than undergraduate students.

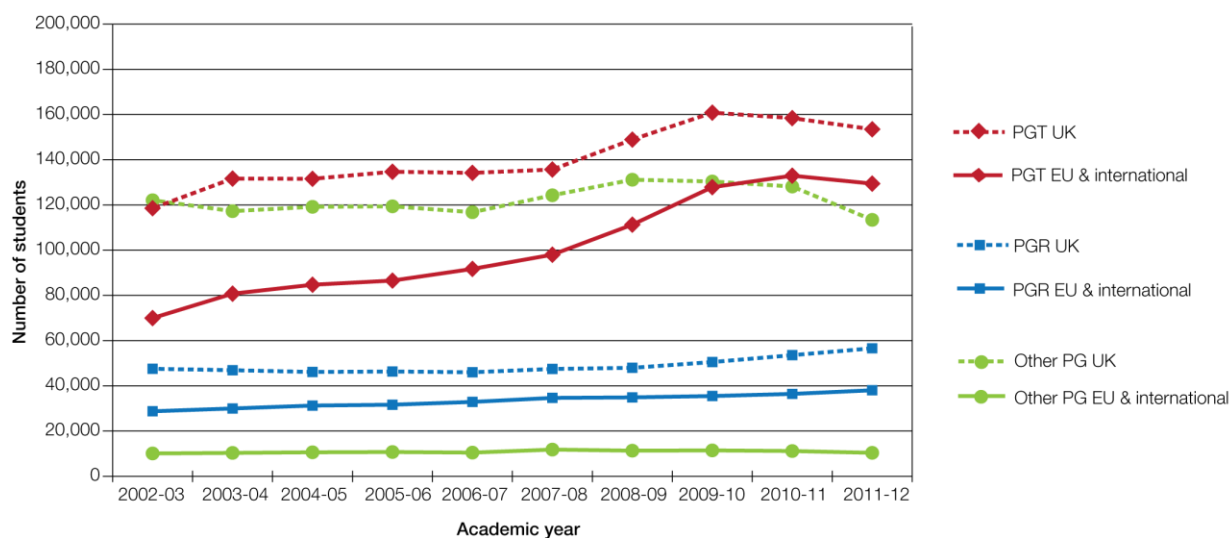
Table 1. Headline demographic data for postgraduate and undergraduate students in English HEIs in 2011-12

Demographic	PGR	PGT	Other postgraduate	Undergraduates
All students	94,645	282,905	123,785	1,576,215
UK-domiciled students	56,600	153,470	113,410	1,447,350
% white ethnic background (all students)	69%	57%	80%	76%
% white ethnic background (UK-domiciled students only)	83%	78%	83%	79%
% female (all students)	47%	54%	67%	57%
% disabled (all students – in receipt of Disabled Students' Allowance or declared disabled)	6.2%	5.3%	6.6%	10%

Domicile

61. Figure 3 shows student domicile and illustrates the importance of EU and international students, who made up a significant proportion (9 and 27 per cent respectively) of total postgraduate student numbers in 2011-12. (For comparison, the equivalent proportions for undergraduate students were 4 and 7 per cent.) Enrolment of EU and international students onto taught masters courses has grown by nearly 90 per cent between 2002-03 and 2011-12, and enrolment onto PGR courses has grown by 30 per cent. International student numbers have doubled over the period, and indeed make up most of the growth in PGT numbers. However, all domiciles showed a decline in taught masters between 2010-11 and 2011-12.

Figure 3. Number of students enrolling on postgraduate courses at HEIs in England and Northern Ireland between 2002-03 and 2011-12 split by course aim and domicile



62. Some subjects are particularly reliant on international students to make courses viable, both through headcount and through the additional income that they provide. International students represented over 50 per cent of total enrolments in each of business, computer science, engineering and law in 2011-12. Their numbers are also growing significantly in architecture, mathematics and the physical sciences. Institutional staff have commented that home and overseas students are of mutual benefit to each other: the presence of international students means that more options are available to home students, and international students like to study alongside home students, as part of appreciating a different country and culture.

63. In view of this, as well as potential threats to the home cohort due to the effect of undergraduate fees and debt, many institutions are concerned about threats to the international cohort. These include increased competition from overseas institutions that are investing in their postgraduate output (including courses in English), and the risk that changes to visa and immigration rules could result in the UK being perceived as unwelcoming or difficult to enter.

64. International and EU postgraduate students also bring considerable 'added value' in the form of their contributions to the economy and society within and beyond academia, and as 'ambassadors' for UK HE in their own country. Many of them take up leading roles in our industries and universities, as academic staff or in other highly skilled occupations in which there are recruitment shortages. In 2010-11, 25 per cent of academics were from outside the UK (compared with 9 per cent of the non-academic workforce in institutions) and of these, the greatest proportion (35 per cent or 10,590 people) were in junior assistant academic positions²². Overseas research students also provide contacts and influence when they return to their own countries, which can help to promote the UK's reputation and to facilitate research collaboration and exchange.

²² 'Staff employed at HEFCE-funded HEIs: Trends and profiles 1995-96 to 2010-11' (HEFCE 2012/14), available at www.hefce.ac.uk/pubs/year/2012/201214/

Age

65. As with other aspects of the postgraduate sector, the age of students commencing postgraduate study is diverse. Figure 4 shows how trends in the age of entrants to postgraduate study (under and over 25 years old) have changed over the 10-year period. Figure 5 shows the proportion of postgraduate types in each age group in 2011-12.

Figure 4. Age of students enrolling on postgraduate courses at HEIs in England and Northern Ireland between 2002-03 and 2011-12 split by course aim

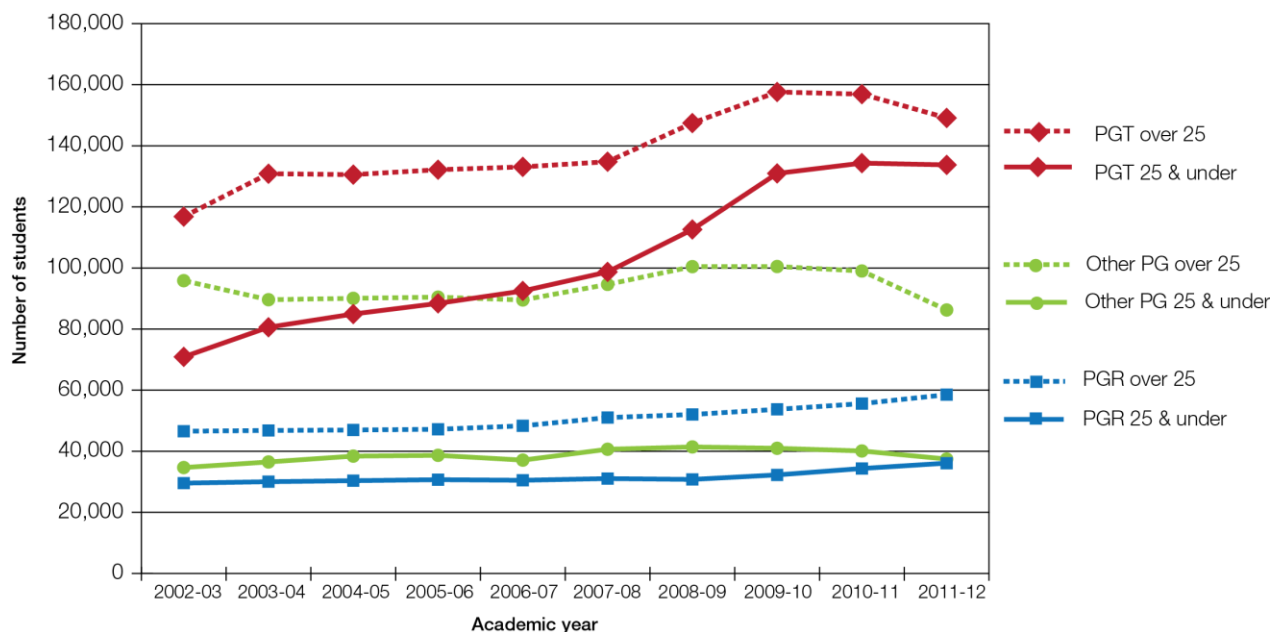
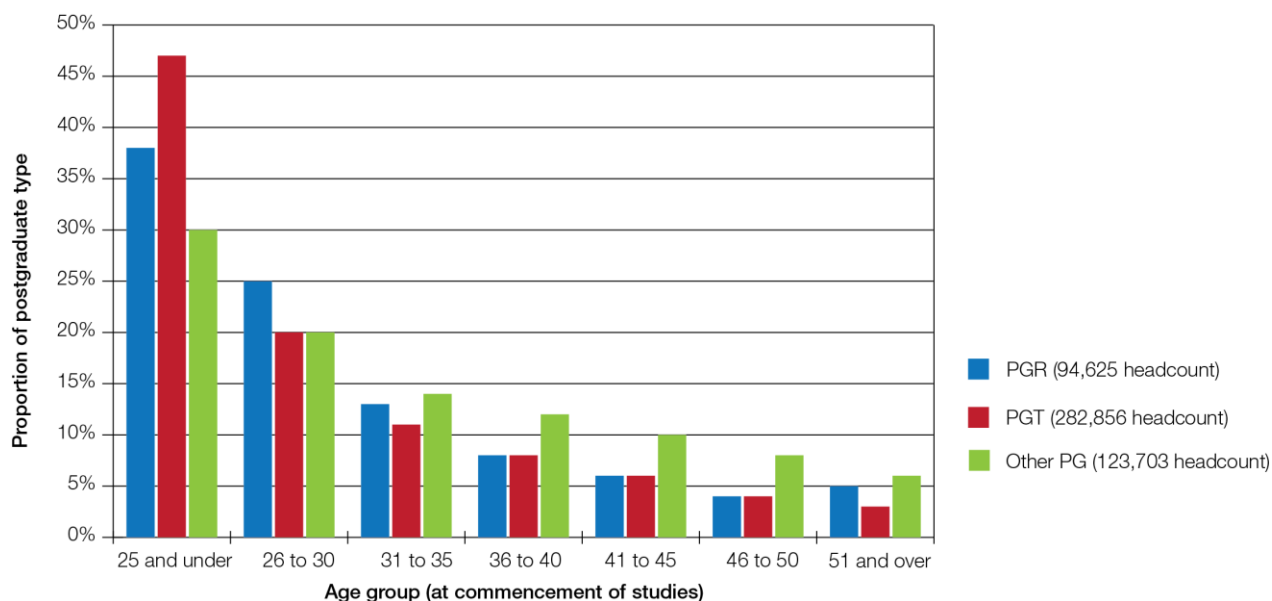


Figure 5. Proportions of postgraduate types in each age group in 2011-12

Those of unknown age have been excluded



66. About 40 per cent of all postgraduate students commence their course between the ages of 21 and 25, and this is the most common age range for commencement across all postgraduate types. For PGR, this proportion has held steady for the last 10 years. For PGT courses however, the proportion who start at 21-25 has risen from 37 per cent to 47 per cent since 2002-03, while the proportion in older age brackets has decreased. Other postgraduate provision has shown a similar pattern, with the 21-25 bracket rising from 23 per cent to 30 per cent. Undergraduate students also reflect this pattern; the proportion who commence their course aged 20 or under has increased from 51 to 59 per cent during the decade, with the proportion of those aged 21 and over decreasing accordingly.

67. These figures nonetheless show that the majority of postgraduate students are not those who have graduated at 21 and then proceeded immediately to further study. 40 per cent are over 30, and in the case of Other postgraduate provision this rises to 50 per cent, perhaps reflecting the fact that many such programmes attract those seeking a career change later in life. Institutional and sector policy and planning will need to take this diversity of background into account, as people at different stages of life face different personal, academic and financial pressures.

68. Mature students also tend to be those who study part time – indeed the majority of all those aged 31 and over study part time, and the likelihood of part-time study increases with age. This is particularly significant for PGT and Other postgraduate students, as shown in Table 2. These students are likely to be working while studying to broaden their skills or enable a career change²³. They may have less appetite for debt due to existing household and family commitments²⁴.

²³ A report from the NUS and Million+ in May 2012, 'Never too late to learn: Mature students in higher education', available at www.millionplus.ac.uk/research-policy/reports/latest-reports/never-too-late-to-learn, found that 75 per cent of all part-time students (undergraduate and postgraduate) work while studying.

²⁴ 80 per cent of all part-time students (undergraduate and postgraduate) study in the same region in which they are domiciled. See 'Flexible learning: Wrapping higher education around the needs of part-time Students', David Maguire, March 2013, available at www.hepi.ac.uk/466-2142/Flexible-Learning--Wrapping-Higher-Education-Around-the-Needs-Of-Part-Time-Students.html

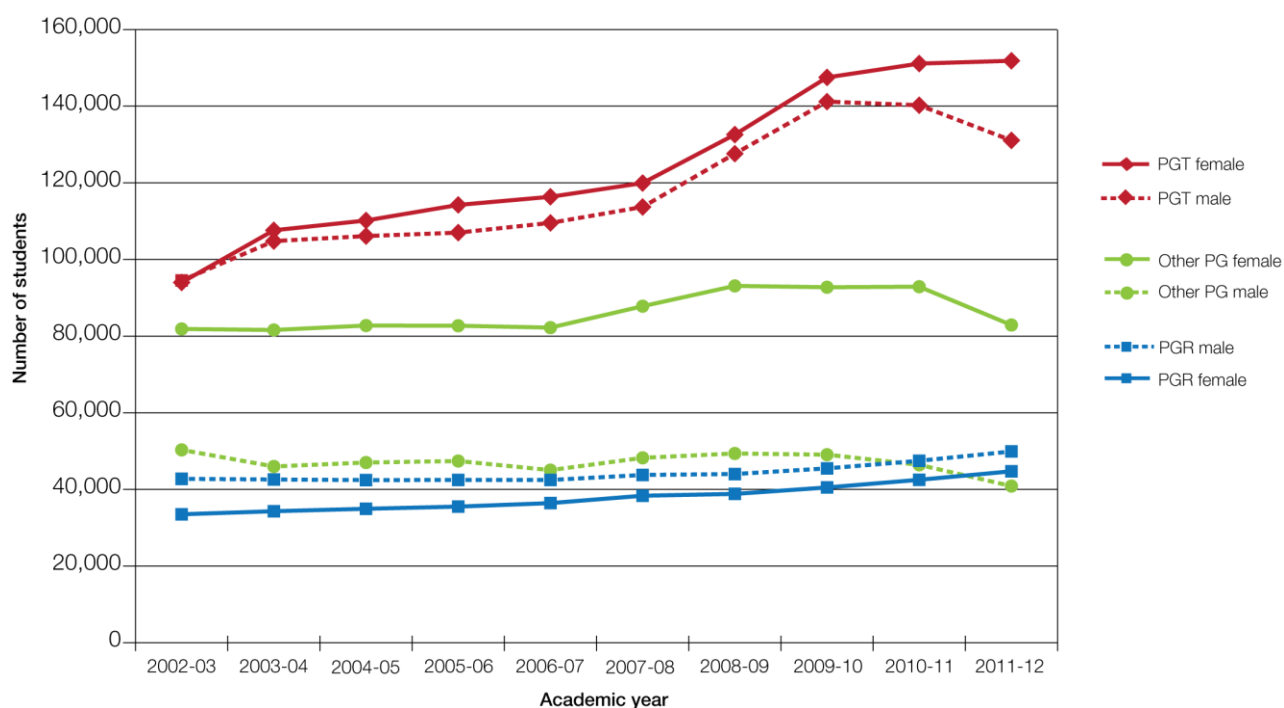
Table 2. Numbers and proportions of each age group studying part-time in 2011-12

Age group	PGR			PGT			Other postgraduate		
	Full-time	Part-time	Part-time % of age bracket	Full-time	Part-time	Part-time % of age bracket	Full-time	Part-time	Part-time % of age bracket
Unknown age	10	10	50%	5	45	90%	5	75	95%
20 and under	145	10	6%	2,010	150	7%	490	200	29%
21 to 25	33,120	2,840	8%	108,505	23,080	18%	23,330	13,440	37%
26 to 30	18,410	4,900	21%	31,050	26,175	46%	7,460	17,265	70%
31 to 35	7,750	4,685	38%	10,410	21,360	67%	2,950	14,255	83%
36 to 40	3,960	3,905	50%	4,640	17,185	79%	2,140	12,230	85%
41 to 45	2,015	3,775	65%	2,480	14,475	85%	1,610	10,935	87%
46 to 50	1,070	3,140	75%	1,370	10,320	88%	995	8,660	90%
51 and over	975	3,945	80%	1,045	8,610	89%	505	7,240	94%
Total	67,445	27,210	29%	161,515	121,400	43%	39,485	84,300	68%

Sex

69. Figure 6 shows that over the 10-year period, the proportion of women in PGR and PGT study has grown. By comparison, the proportion of female undergraduate students remained at 57-58 per cent throughout the period, so it may be that the increasing proportions in postgraduate study reflect numbers ‘catching up’ with this pattern. Table 3 shows the balance between the sexes and also shows the split between full-time and part-time students in each postgraduate type in 2011-12. Male and female numbers have been roughly similar for taught masters courses, but in 2010-11 numbers of men declined. Numbers are also similar for part-time PGR and, while there remain some subjects within which female research student numbers are low, the gap between male and female full-time PGR numbers is closing. Organisations such as Vitae and the Equality Challenge Unit continue to be active in promoting equality in research careers, and the convergence of female and male participation was noted in a February 2013 report on social mobility in postgraduates by the Sutton Trust²⁵. Other postgraduate study shows a marked difference in participation by gender, however: women consistently outnumber men, making up between half and two-thirds of the cohort. Women are also more likely to study part-time across all postgraduate types.

Figure 6. Sex of students enrolling on postgraduate courses at HEIs in England and Northern Ireland between 2002-03 and 2011-12 split by course aim



²⁵ Lindley and Machin (see note 16).

Table 3. Numbers and proportions of each sex in 2011-12 by course aim and mode

Gender	PGR		PGT		Other postgraduate	
	Number	% of course	Number	% of course	Number	% of course
Men						
All	49,910	53%	131,065	46%	40,880	33%
Full-time	36,710	39%	77,505	27%	12,990	10%
Part-time	13,200	14%	53,560	19%	27,890	23%
Women						
All	44,730	47%	151,840	54%	82,905	67%
Full-time	30,735	32%	84,000	30%	26,485	21%
Part-time	13,995	15%	67,840	24%	56,420	46%

Ethnicity

70. For this section the analysis concentrates on UK-domiciled students. Table 4 shows the percentage of each ethnic group by qualification aim in 2011-12.

Table 4. Change in number of UK domiciled postgraduate students between 2002-03 and 2011-12 by aim and ethnic group

England and NI postgraduate UK-domiciled total by aim and ethnic group		2002-03	2011-12	% change 2002-03 to 2011-12
Postgraduate research	Asian	2,045	3,680	80%
	Black	930	1,820	96%
	Chinese	535	915	71%
	Mixed and other	1,070	2,640	147%
	White	33,630	45,025	34%
Total for postgraduate research		38,210	54,080	42%
Taught masters	Asian	7,330	12,410	69%
	Black	5,865	11,480	96%
	Chinese	1,435	2,160	51%
	Mixed and other	2,805	6,505	132%
	White	83,810	115,225	37%
Total for taught masters		101,245	147,775	46%

Other postgraduate	Asian	5,120	8,725	70%
	Black	3,735	5,430	45%
	Chinese	655	895	36%
	Mixed and other	1,855	3,535	90%
	White	94,720	90,755	-4%
Total for Other postgraduate		106,090	109,340	3%
Total		288,170	323,485	12%

71. 81 per cent of UK-domiciled postgraduate students were of white ethnic origin in 2011-12, compared with 79 per cent of undergraduate students and 86 per cent of the UK population in 2011²⁶. Table 4 shows that since 2002-03, growth in all other ethnic groups has exceeded that of the white ethnic group, reflecting similar trends in the undergraduate population and in the UK population as a whole. In Other postgraduate study, students from a white ethnic background declined while other groups increased. The trends in Table 4 broadly held for both full-time and part-time study.

Disability

72. The majority of all postgraduate students (94 per cent, in 2011-12) have no known disability. However, the proportion of postgraduate students stating a disability or in receipt of a Disabled Students Allowance has risen gradually in the past 10 years, from 3.1 per cent in 2002-03 to 5.8 per cent in 2011-12. This reflects the pattern at undergraduate level, where the proportion stating a disability or in receipt of a Disabled Students Allowance has risen from 6 to 10 per cent in this time.

Highest prior qualification

73. Data for 2011-12 show that the majority of PGR students (56 per cent) commence their study holding a masters degree, compared with 33 per cent a decade ago. Integrated masters qualifications account for 3 per cent: these are particularly significant for subjects allied to medicine, physical sciences, and engineering and technology. 38 per cent of PGR entrants in 2011-12 held only a first degree.

74. There may be a number of influences behind the increase in those entering a PhD with a masters qualification, such as the adoption of '1+3' (one-year masters followed by three-year PhD) expectations, funding models by Research Councils and other funders, and more students following masters courses to differentiate themselves from others in a mass HE system.

75. For PGT and Other postgraduate entrants, the commonest highest qualification on entry in 2011-12 was a first degree (held by 76 per cent and 62 per cent of entrants respectively). However, 11 per cent of those entering PGT programmes and 17 per cent of those entering

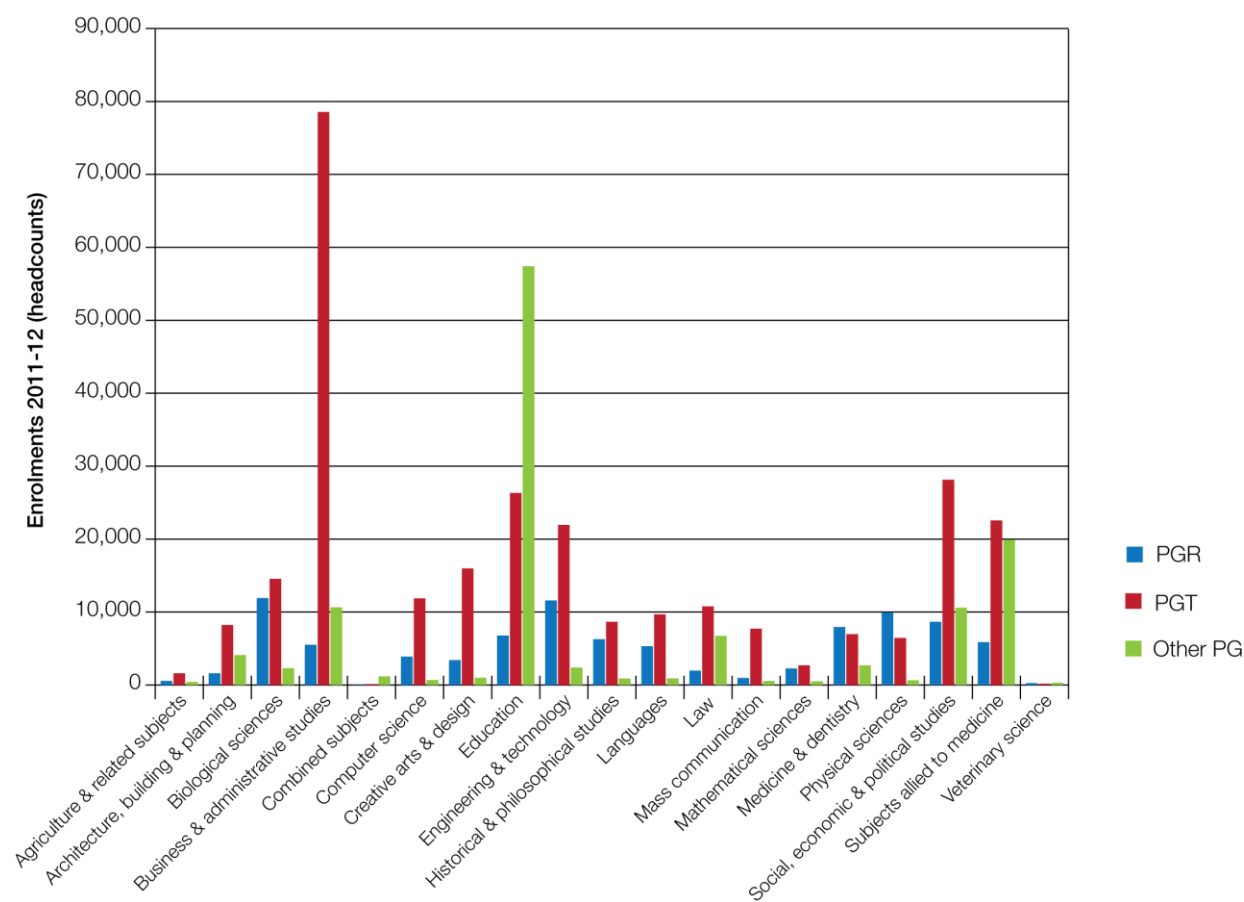
²⁶ 'Ethnicity and National Identity in England and Wales 2011', Office of National Statistics, www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/rpt-ethnicity.html

Other postgraduate in 2011-12 already had a masters qualification, and the proportion entering with a qualification higher than a first degree has risen over the last 10 years.

Subjects studied

76. Figure 7 shows enrolment across different subjects in 2011-12. It demonstrates that the subjects studied are not evenly distributed across the three postgraduate types. Research degrees are dominated by sciences, engineering and technology. In PGT, business studies represent a very large proportion. Both PGT and Other postgraduate have large numbers of students in education (this includes PGCEs for Other postgraduate) and subjects allied to medicine.

Figure 7. Enrolments by subject in 2011-12



77. Analysis of the subject balance between 2003-04 and 2011-12 suggests that in many cases the subject 'share' has remained fairly steady, although numbers have grown overall. Some subjects do, however, show noticeable shifts during this period:

- a. PGR numbers in all subjects except agriculture and combined subjects have increased.
- b. PGT numbers in all subjects except computer science and combined subjects have increased.
- c. Other postgraduate numbers are inevitably concentrated in a particular set of programmes. There has been a particularly large increase in medicine and dentistry,

social, economic and political studies and subjects allied to medicine, but declines in business and administrative studies, combined subjects, computer studies, education and law.

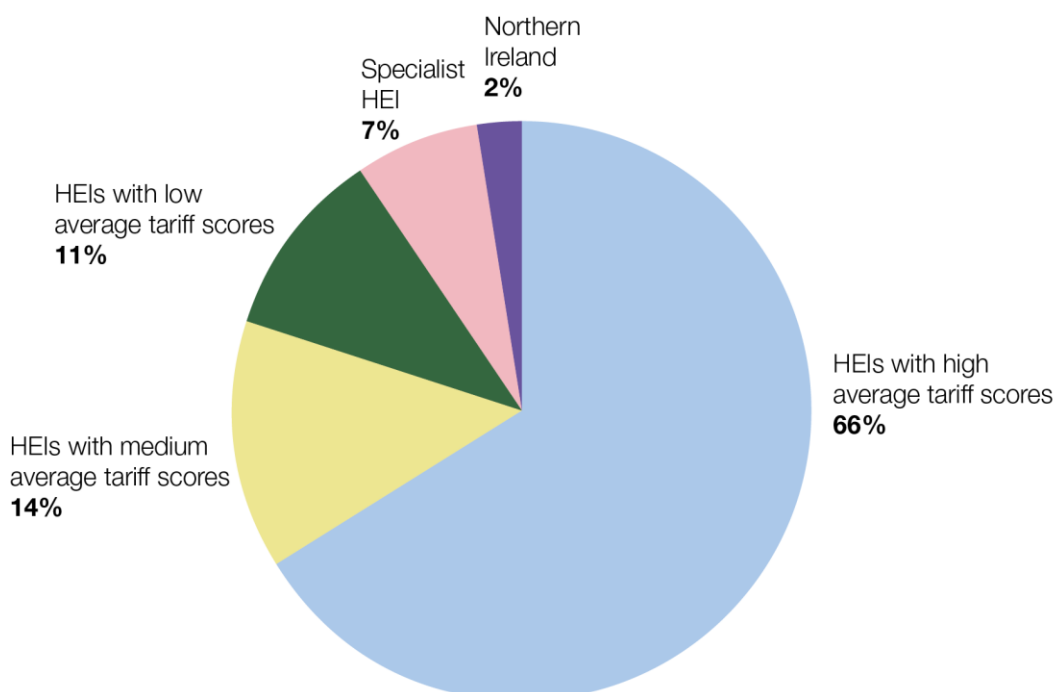
78. As noted in the discussion of student characteristics, growth in many of the areas mentioned, particularly in PGR and PGT study, is due to increases in international students, and to a lesser extent, EU students. In PGR and PGT, proportional growth in EU and international students has exceeded that of home students in the majority of subjects. In both PGR and PGT, EU and international students make up significant proportions of the numbers studying business and administrative studies, computer science, engineering and technology, and law. Overseas students are also important for PGR agriculture and architecture, and PGT mass communication and mathematical sciences. More comprehensive data on subject patterns across the last decade are available through our work on strategically important and vulnerable subjects²⁷.

Institution type

79. Figures 8a to 8c illustrate the importance of HEI type on postgraduate study, by showing the proportions of students with each study aim who are found in particular institutional groupings. These proportions have remained very consistent in the last 10 years.

80. The institutional groupings used here are those used by BIS. English HEIs are grouped using the average tariff score of their UK-domiciled undergraduate entrants aged under 21 in the 2011-12 academic year. Specialist institutions are separated out (these are HEIs where at least 60 per cent of provision is concentrated in one or two subjects) and the remaining institutions are ranked by average tariff score, then grouped into thirds. Institutions in the top third are in the 'high average tariff' score group and those in the bottom third are in the 'low average tariff' score group.

Figure 8a. PGR study by HEI tariff grouping in 2011-12



²⁷ Data can be downloaded from www.hefce.ac.uk/whatwedo/crosscutting/sivs/data/

Figure 8b. PGT study by HEI tariff grouping in 2011-12

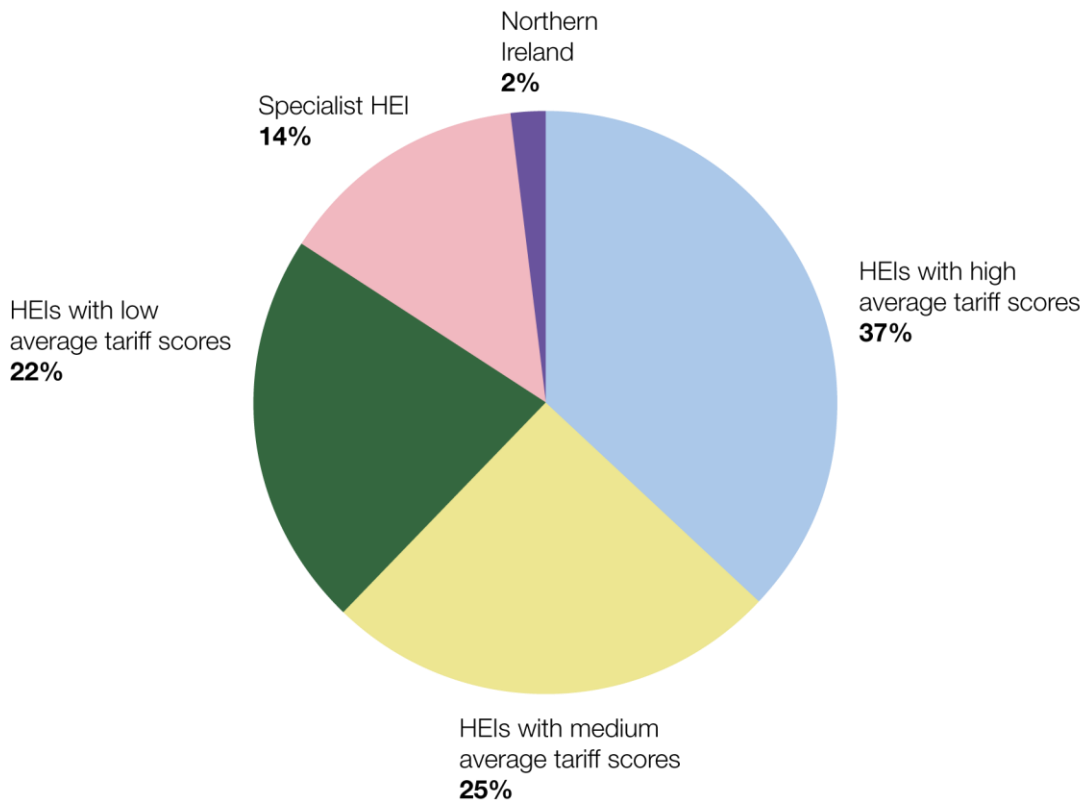
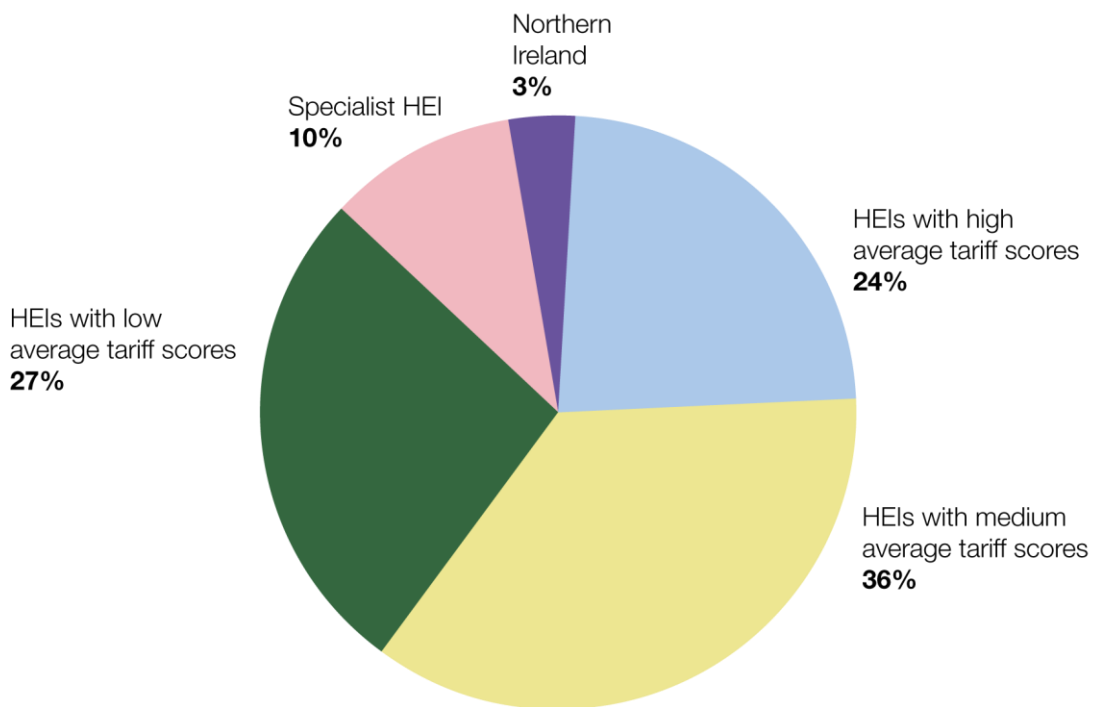


Figure 8c. Other postgraduate study by HEI tariff grouping in 2011-12



81. Figure 8a shows that two-thirds of PGR students are found in the highest-tariff institutions. These selective institutions tend also to be those with the most research funding. PGT and Other postgraduate provision show a more even distribution of students across tariff groupings, but high- and medium-tariff HEIs still account for the greatest shares of postgraduate education.

82. Initial analysis also shows that enhanced degrees (integrated masters) are most commonly offered in higher-tariff institutions. These qualifications tend to focus on STEM subjects which are more predominant in these institutions.

The student experience

Financing study

83. Data on how students pay their tuition fees are collected in the HESA record, but this information should be used with caution – for example, a student might pay their own fees upfront, thus appearing to be self-financed, but could later be reimbursed by their employer.

84. With this caveat, the sources of tuition fee funding for students in 2011-12 are shown in Figures 9a to 9c. Note that these figures and the following discussion refer only to fees and do not include finance for maintenance costs.

Figure 9a. Sources of finance for tuition fees for PGR students in 2011-12 (HESA data) (94,645 students)

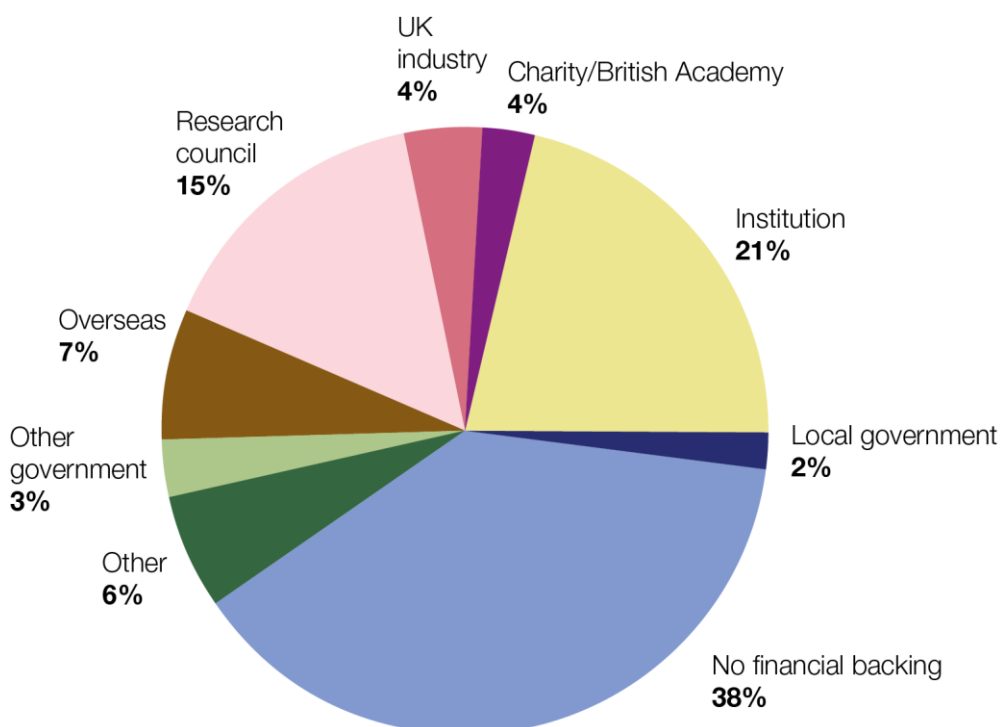


Figure 9b. Sources of finance for tuition fees for PGT students in 2011-12 (HESA data) (282,905 students)

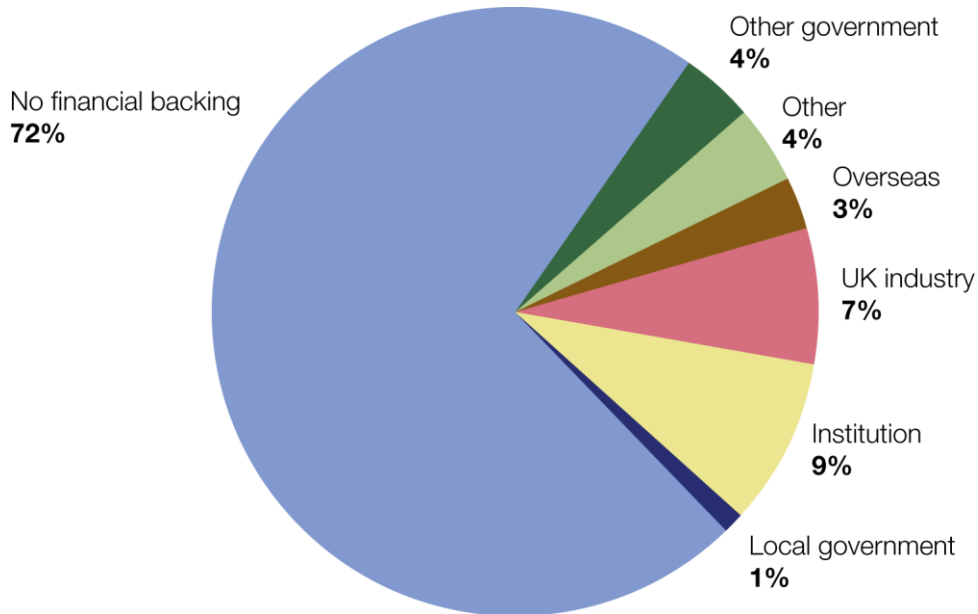
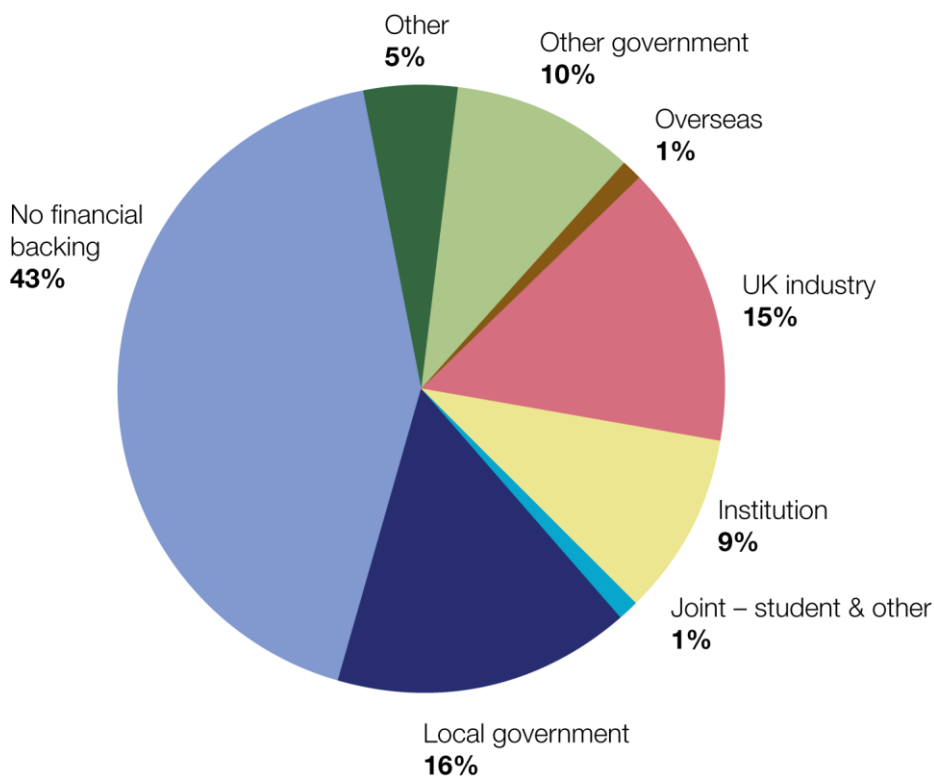


Figure 9c. Sources of finance for tuition fees for Other postgraduate students in 2011-12 (HESA data) (123,785 students)



85. From the data as given, it appears that the majority of postgraduate students have no financial backing, and fund their fees either from personal finances or through loans. (The proportions of self-financed students remain the same even if international students, who are not

covered by HEFCE funding, are excluded.) This is an important consideration for HEFCE, as our teaching funding for higher-cost PGT students (those in bands A to C) has an influence on the fees students pay: by helping institutions meet their costs, it should enable them to keep those costs low, making provision accessible to more students, particularly in the highest-cost areas.

86. Self-financing is particularly evident in the case of PGT, where 72 per cent of all students are self-financed (78 per cent of full-time and 64 per cent of part-time students). Self-financing has driven growth in the PGT sector since 2002-03; this proportion grew by 60 per cent between 2002-03 and 2011-12 compared with a 50 per cent growth of the whole population. Conversely, the majority of both PGR and Other postgraduate students receive at least some funding from other sources. PGR students also show a strong difference between full- and part-time students; only 29 per cent of full-time students have no financial backing, compared with 61 per cent of part-time PGR students.

87. Research Council funding for taught masters courses has declined during the period by 50 per cent: Research Councils now support approximately 1 per cent of all taught masters. However, this was never a significant proportion of Research Council funding (at its maximum only 5 per cent of masters were supported). Numbers of PGT students receiving institutional funding have nearly trebled, however, perhaps reflecting an increased number of bursaries as institutions have sought to expand their markets. Institutional support is a significant contribution for all three postgraduate types.

88. The proportion of PGR students receiving Research Council funding appears relatively low at 15 per cent, which is well below the level of the 38 per cent who are self-financed. The majority of Research Council funding (89 per cent in 2011-12) is allocated to full-time home and EU PGR students, and still only represents 30 per cent of this group, with 24 per cent receiving institutional funding and 25 per cent (nearly 11,000 students) self-financed. Receipt of Research Council funding also varies between discipline areas: over half of these students are those studying biological and physical sciences, engineering and technology. Funding proportions have remained fairly steady over the years, although there has been some increase in local government funding.

89. Other postgraduate students show the greatest spread of funding sources: significant proportions obtain funding from the Government and industry, reflecting the fact that many of these programmes are based in the professions and studied part-time. However, self-financing is still the most common option.

Student finance and loans

90. As well as paying fees postgraduate students need to fund their living expenses, but they are not eligible for support from the Student Loans Company. While many PGR students benefit from studentships, the majority do not. Access to funds may therefore have a significant impact on who can study, with obvious implications for fair access.

91. While student finance is not HEFCE's remit, we have a key role in supporting the student interest, and are discussing student finances to collate information and provide robust advice on the options available. We know from discussions that institutions are working hard to help where they can, through bursaries, fee waivers and other incentives, but there is no centralised approach.

92. There has been much debate about the pros and cons of postgraduate student loans. The introduction of such a system was suggested by the Independent Reviewer on Social Mobility and Child Poverty, Alan Milburn, in 'University challenge: How higher education can advance social mobility'²⁸. The Professional Career Development Loan (discussed below) illustrates the challenges of providing a widely available and affordable loan without exceeding an acceptable level of risk to the parties involved. We present this and some other proposed solutions below.

93. The provision of student loans is a matter for the Government to decide, but it is clear that it will involve operational challenges and a financial risk to the Government, which is already heavily exposed to higher education loans at undergraduate level. However, there may be opportunities for collaboration and risk-sharing between Government, institutions and banks, and for new models of lending such as these to be explored further. HEFCE will continue to provide advice to BIS on these issues.

The Professional Career Development Loan

94. The only commercial loan available to postgraduate students is the Professional Career Development Loan (PCDL), which is offered by the Co-operative and Barclays Banks. Applicants can borrow a maximum of £10,000. Repayment begins one month after the after the student completes their studies (although it can be deferred). An interest rate of 9.9 per cent is applied once repayments start. The risk of defaulted repayments is borne by the Government.

95. The type of student who can access the loan is limited, as the banks involved can only lend to students on courses approved by the Skills Funding Agency. These tend to be vocationally or professionally focused with a good employment rate following study. Furthermore, the level of risk borne by the banks and Government in these loans means that they are unlikely to be made higher or more widely available. This is reflected in the relatively low take-up of these loans, a factor highlighted by the NUS²⁹.

Centre Forum proposal – 'Mastering postgraduate funding'

96. The independent think tank, Centre Forum, published a proposal for loans for one-year PGT students³⁰. This would apply to students who begin their undergraduate degrees in 2012-13 or later, for compatibility with the new fees and finance regime. The proposal suggests providing an upfront loan of £10,000 to cover living costs (not fees), to be reclaimed when the student begins earning £15,000 per annum. Any losses from non-payment would, the report argues, be more than compensated for by the tax payments resulting from the higher earnings of those with a masters qualification. The proposal calculates that the number of students able to afford a master's degree would increase by about a third, and the resulting tax increase should provide a return to the Government. This would be dependent on the student having enough 'earning years' ahead of them, however, and for this reason the loans might have to be restricted to those

²⁸ 'University challenge: How higher education can advance social mobility', October 2012, www.cabinetoffice.gov.uk/resource-library/independent-reviewer-report-higher-education

²⁹ 'What's wrong with career development loans?', www.nusconnect.org.uk/news/article/postgraduate/Whats-wrong-with-career-development-loans/

³⁰ 'Mastering postgraduate funding', Tim Leunig, October 2011, available at www.centreforum.org/index.php/mainpublications/257-mastering-postgraduate-funding

under 35. Given the high proportion of mature PGT students, this would leave many students unable to access such a loan.

Higher Education Commission

97. The report of the HEC inquiry into postgraduate education recommended that a task force be established to examine the feasibility of a postgraduate student loan scheme³¹. However, recognising the pressure on an already overloaded financial system, the HEC recommended that such a scheme should be targeted – for example at those studying programmes which are important to the UK's international competitiveness, which are necessary for a particular profession, or where funding is difficult to locate from other sources such as sponsorship.

National Union of Students

98. The NUS published a report proposing three separate loan schemes for PGT students³². One scheme would support initial access to the professions, and would be targeted at those in greatest need; one would cover employer-backed student loans for those studying part-time while working; and one would be a general scheme for a controlled number of students spread over a range of subject areas. The NUS also suggested a repayment earnings threshold of £15,000 per annum.

Motivation for study

99. Information on what motivates students to study can be difficult to obtain. The most comprehensive information comes from the Postgraduate Taught Experience Survey (PTES) and Postgraduate Research Experience Survey (PRES) run by the HE Academy³³. These are online surveys which all UK institutions can elect to use. Not all institutions do, and response rates are relatively low (24.7 per cent for PTES in 2012 and 32 per cent for PRES in 2011), but are improving. Each survey has run only four times. Institutional results are not made public as they are in the undergraduate NSS, but aggregate reports are published for the whole UK sector. All students at an institution, including overseas students, are eligible for the survey.

100. The 2012 PTES surveyed 54,640 students, of whom 80 per cent were taught masters students, with most of the remainder studying for postgraduate certificates and diplomas. It found that the greatest motivation for studying a PGT qualification was employment, with nearly 60 per cent of respondents agreeing that they were studying to improve their employment prospects and to progress in their current career path; 50 per cent were studying for personal interest, and 38 per cent to enable themselves to progress to a higher level qualification such as a PhD. Of the part-time respondents, 16 per cent also commented that their employer encouraged them to take up the course, compared with only 3 per cent of full-time students. This reflects the vocational character of many part-time courses. Flexible delivery was also very important for part-time students.

³¹ 'Postgraduate education: An independent inquiry by the Higher Education Commission', October 2012, available at www.policyconnect.org.uk/hec/research/postgraduate-education

³² 'Steps towards a fairer system of postgraduate taught funding in England', available at www.nus.org.uk/Global/Campaigns/1595-PGTFundingReport_v2-PAGES.pdf

³³ See www.heacademy.ac.uk/PTES and www.heacademy.ac.uk/PRES

101. The 2011 PRES surveyed 31,202 students, of whom 73 per cent were enrolled on a PhD, 14 per cent on an MPhil with a transfer to PhD, 7 per cent on an MPhil only and 2 per cent on research masters courses. For research students, the greatest motivation for studying was personal interest (37 per cent), with 30 per cent wishing to improve their career prospects.

General student experience

102. Results from the PTES indicate a generally positive student experience, with the highest ratings given to quality of staff, learning resources, career development and skills development. Scores for assessment and feedback, and for dissertation requirements, were lower but still positive overall.

103. In the 2011 PRES, 86 per cent of respondents said that their overall experience met or exceeded their expectations. They were also positive about supervision and skills development. Only 57 per cent thought that there was sufficient financial support for research activities, although they were positive about other resources. The lowest-scoring areas were 'professional development and career', which fewer than 50 per cent of respondents felt they were given opportunities to think about, and 'intellectual climate', on which students would have welcomed greater involvement in a broader research culture and more contact with other researchers.

Quality and standards

104. HEFCE and the Research Councils are required to assure that the provision for which they provide public funding is of satisfactory quality. HEFCE discharges this responsibility by providing funding to the QAA to carry out institutional audits, which include consideration of teaching quality and the general research environment. The Research Councils also consider the quality of the research environment in their funding decisions, and expect the Universities to act in accordance with current good practice as detailed in the QAA's Quality Code³⁴.

Methods for assuring quality

105. In November 2012, the QAA published a report summarising the findings of institutional audits relating to PGR provision³⁵. The report noted that PGR was generally in good health and that the sector had made efforts to expand and strengthen its research provision, creating an appropriate and well resourced environment. Areas noted for improvement were the monitoring of individual students, and training doctoral students in teaching and assessment methods. Supervision and assessment were noted as strengths.

106. The new QAA Quality Code, which provides guidance for good practice, includes a chapter on research degrees. This sets out expectations for a research environment which provides quality research opportunities and support. QAA reviews will check whether or not this expectation is being met.

107. HEFCE and the other UK funding bodies also use the findings of the Research Assessment Exercise. From 2014, this will be replaced by the Research Excellence Framework.

³⁴ 'Quality Code – Chapter B11: Research degrees', June 2012, available at www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/quality-code-B11.aspx

³⁵ 'Outcomes from Institutional Audit: 2009-11: Postgraduate research students', November 2012, available at www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Outcomes-audit-postgraduate-research-students.aspx

The Research Assessment Exercise results in quality profiles for each submission of research activity made by institutions, which are used to calculate research grant, including support for postgraduate research students.

108. The Research Councils also use independent expert peer review processes to assure the quality of the provision that they fund. Academics and research-users from the UK and overseas are charged with reviewing specific proposals for research and postgraduate funding, and ensuring that only the highest-quality work is funded.

109. PGT courses are included with undergraduate courses in the QAA method and are not commented on separately. This may be an area we need to understand better, particularly as funding methods diverge. This will be a consideration for future work.

110. The UK Council for Graduate Education and Vitae work with the sector to provide advice and guidance on quality aspects of postgraduate provision.

Concerns over quality

111. The House of Lords report into STEM subjects in July 2012 noted that QAA is concerned with threshold standards and not with notions of quality above the threshold. Similarly, the October 2012 HEC report queried how research outcomes were measured (although it noted that the 2014 Research Excellence Framework will include an impact measure), and reported some views that the focus of a PhD could be too narrow in relation to the requirements of the jobs market and international competition.

112. There have also been long-running discussions about how UK postgraduate provision, in particular the one-year taught masters, fits into the 'Bologna framework' to which all European HE provision is expected to adhere for the purpose of comparability³⁶. It should be noted that the Bologna process considers outcomes rather than length of study and the UK masters course is compliant with the framework. However, masters degrees in other countries tend to take longer, typically two years, and some overseas institutions do not consider the UK masters to be comparable³⁷. We are considering these issues in the context of our work on international comparisons and our dual support with the Research Councils of postgraduate research.

Transition rates into postgraduate study

113. We have begun to analyse data to investigate trends in transition rates from undergraduate to postgraduate study. More details are available in a separate report, 'Trends in transition from first degree to postgraduate study: Qualifiers between 2002-03 and 2010-11' (HEFCE 2013/13). This section summarises some early findings, and highlights some important considerations for widening participation and fair access. Note that this work focuses on transition within one year for full-time first degree UK domiciled qualifiers from English HEIs between 2002-03 and 2010-11. Further work and analysis will continue in the next year.

³⁶ 'The Bologna Process in higher education', March 2011, available at

www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Bologna-Process-in-HE.aspx

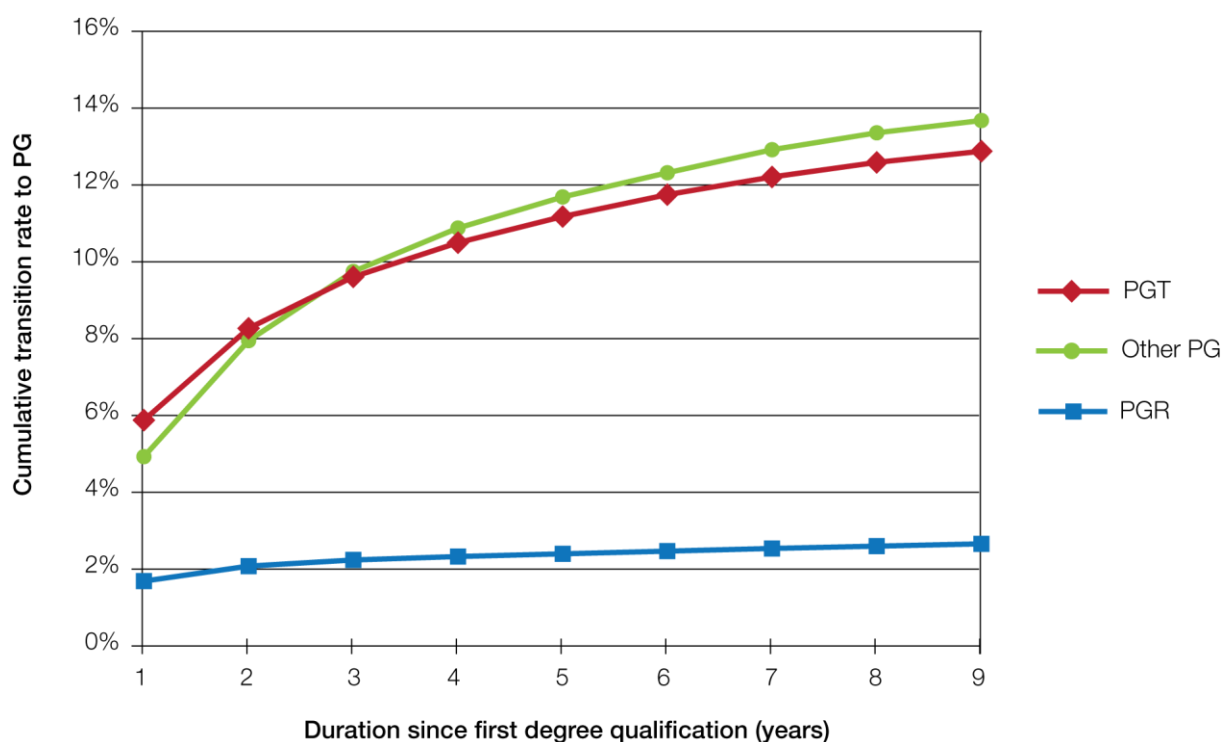
³⁷ 'The Bologna process and the UK's international student market', Higher Education Policy Institute, May 2008, available at www.hepi.ac.uk/466-1338/The-Bologna-process-and-the-UK%E2%80%99s-international-student-market.html

Time taken before starting postgraduate study

114. Initial investigation of transition rates suggests that about 13 per cent of all first-degree qualifiers go on to study a postgraduate qualification within a year, whereas 20 per cent progress to postgraduate study within three years.

115. A high proportion of students enter postgraduate study after a longer break, which correlates with the evidence on the significance of postgraduate study among those aged over 25. This is shown in Figure 10, which shows transition rates up to eight years after the initial qualification. It is clear that enrolment in PGT and Other postgraduate provision in particular increases with time, and this may be particularly significant for part-time students fitting study around employment later in life. One consequence of this is that it may be a long time before the impact of undergraduate fee reforms becomes clear, as the new undergraduate fee-payers may not enter the postgraduate system for some years.

Figure 10. Cumulative transition rate by duration between first-degree qualification and postgraduate enrolment for 2002-03 full-time UK qualifiers at English HEIs



Transition rates by institution

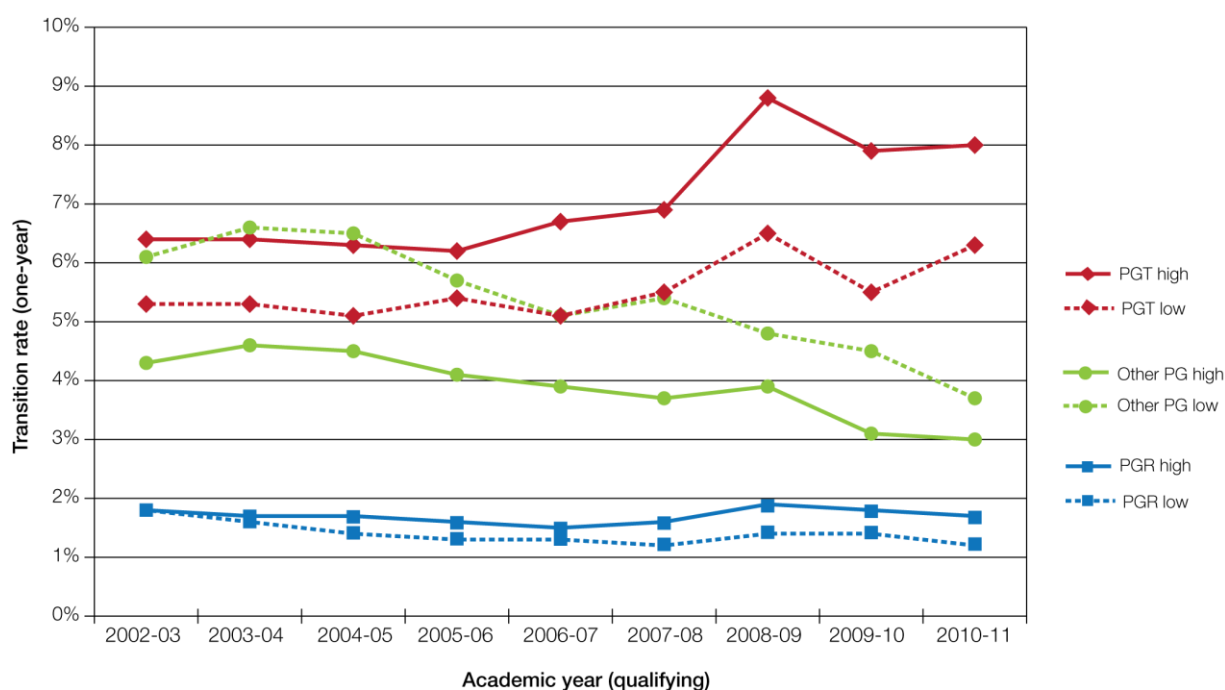
116. HEFCE analysis shows that students at high-tariff institutions (those with the highest undergraduate entry requirements) were most likely to transition to all types of postgraduate study, with transition rates of 16.5 per cent overall, compared with 8.4 per cent for those at low-tariff institutions. Transition rates to PGR study were particularly high from the highest-tariff institutions, being 3.2 per cent against a sector average of 1.4 per cent. PGR students at all tariff levels are more likely to stay at their undergraduate institution to continue study than masters and Other postgraduate students.

117. Analysis of the Destination of Leavers from Higher Education (DLHE) survey for HE in further education colleges showed that a notable difference between full-time first degree qualifiers at HEIs and further education colleges was the proportion who went into further study (whether in combination with employment or not): 15 per cent of such qualifiers from colleges in 2010-11 went into further study, compared with 24 per cent of qualifiers from HEIs.

Transition and socio-economic background

118. We are working to understand whether there are differences in how different socio-economic groups participate in postgraduate education. One approach is to look at transition rates using Participation of Local Areas (POLAR) quintiles. POLAR is a measure of the participation of young people in undergraduate HE by geographical area. Figure 11 shows the proportion of the first degree cohort who progress to postgraduate study within one year of graduation, for the 'lowest' and 'highest' POLAR quintiles (those with the least and the most undergraduate participation respectively). The figure shows that those from high undergraduate participation areas were more likely than those from low undergraduate participation areas to go on to study PGT or PGR courses, although the difference is small for PGR. However, Other postgraduate study – which includes vocational courses such as PGCEs – attracted more students from low undergraduate participation areas.

Figure 11. One-year transition rates of young full-time first-degree UK qualifiers at English HEIs to PG courses split by high and low POLAR quintiles and type of PG study



119. Young first-degree qualifiers from a low-participation background were more likely to stay at the same institution for their postgraduate study (50 per cent) than those from a high-participation background (44 per cent).

120. HEFCE analysis also shows that even where students achieve the same undergraduate degree classification, participation background still has an effect. At each classification level, progression to a masters is more likely for those from the highest-participation group.

Conversely, progression to Other postgraduate study is more likely for those from a lower-participation background, again regardless of first-degree classification. While the progression to PGR is the same for those who have a first-class degree regardless of participation background, those with a 2.1 are more likely to progress if they are from a high-participation quintile.

121. This work is still in the early stages, but clearly shows that disparities in participation at undergraduate level are continued and even compounded at postgraduate level, with implications for fair access. We intend to continue to research the reasons for the differences between students from different POLAR quintiles. More detail on this transition work is in our separate report.

Other work on transition to postgraduate study

122. HEFCE's work complements that of Paul Wakeling of York University, a lead researcher in this area. His previous research has identified the following issues relating to progression to research degrees³⁸.

- a. Progression to a research degree is strongly associated with attaining first-class honours, graduating in physical science subjects or attending a pre-1992 university as an undergraduate.
- b. Research students are concentrated in pre-1992 universities, but more evidence is needed on the extent to which students move institutions between undergraduate and PGR study as opposed to institutions recruiting researchers from their own undergraduates.
- c. Socio-economic background has a greater effect on later entrants than on those who progress immediately. However, there are insufficient socio-economic data available for PGR students to reach a clear conclusion.
- d. Women and ethnic minorities are under-represented in PhD programmes.
- e. There is no clear link between PGR participation and access to financial resources.
- f. There are few data on motivations for PGR study and how students approach the applications process.

123. Wakeling has recently completed further research with Gillian Hampden-Thompson on transitions to postgraduate education. These are some of the key findings of their report³⁹.

- a. Rates of transition differ across subjects, with 'pure' disciplines having higher rates than 'applied' subjects.
- b. Transition is strongly affected by degree-level attainment; those with first-class honours are more likely to progress.

³⁸ 'Widening Participation from Undergraduate to Postgraduate Research Degrees: A Research Synthesis', Paul Wakeling and Chris Kyriacou, June 2010, available at www.york.ac.uk/education/our-staff/academic/paul-wakeling/#publications

³⁹ 'Transitions to higher degrees across the UK: an analysis of national, institutional and individual differences', Higher Education Academy, available at www.heacademy.ac.uk/resources/detail/Research/Postgraduate_transitions

- c. EU-domiciled graduates are more likely to progress than UK-domiciled graduates, but there is little difference between the UK nations.
- d. There was no evidence that progression is affected by funding arrangements, but this warranted further study.
- e. Graduates from more selective institutions generally have higher rates of progression to higher degrees than those from less selective institutions, but there is considerable variation in this and in rates between taught and research degrees. There is scope for further investigation of institutional practices in this regard.
- f. Background characteristics affect progression rates, as follows:
 - i. Women have lower rates of progression than men.
 - ii. There are differences between ethnic groups, with progression by Bangladeshi and black Caribbean students being particularly low.
 - iii. Graduates from less privileged socio-economic backgrounds are underrepresented, but finance does not appear to be a factor.
- g. Research into the association between background characteristics, academic and financial factors is recommended.
- h. Research is also recommended into the transition from taught to research degrees, especially for subjects where a masters is a required 'stepping stone' to a doctorate.

124. The Futuretrack survey, funded by the Higher Education Careers Service Unit, tracks the cohort of students who applied to university through UCAS in 2005-06⁴⁰. The latest report, from November 2012, again suggests that those studying in 'high-tariff HEIs' and those gaining first-class honours were more likely to embark on any kind of postgraduate qualification. Parental academic achievement also had an effect; postgraduate study is more likely if both parents hold a degree. The study determined that progression to postgraduate study was more likely in certain subjects, including languages, history and physical sciences. It also found that men were more likely than women, and Asian graduates more likely than white graduates, to take up further study. Half of the respondents had wanted to undertake postgraduate study, but were limited by debt, and 10 per cent were limited in their choice by needing to live at home.

125. A report published by the Sutton Trust in 2010 on 'The social composition and future earnings of postgraduates' found that school background had an effect on progression to postgraduate study⁴¹.

- a. Those educated in independent schools are 1.2 per cent more likely to carry on to postgraduate education than similarly educated state school students, and this gap is widening.

⁴⁰ Information and reports are available from www.hecsu.ac.uk/current_projects_futuretrack.htm

⁴¹ 'The social composition and future earnings of postgraduates', Centre for Economic Performance, London School of Economics, available at www.suttontrust.com/research/the-social-composition-and-future-earnings-of-postgraduates/

- b. 76 per cent of independent school pupils who attended university between 2004 and 2008 graduated from a 'leading research university' compared with 39 per cent of state school pupils.
- c. While state school students at 'leading research universities' are 3 per cent more likely than independently educated students to achieve a first or upper second undergraduate degree, they are slightly less likely to progress to postgraduate education.

Conclusions on transition rates

126. It is evident from the above analysis that socio-economic background (as far as we can infer this from participation background) does affect transition to postgraduate study. To some extent, these patterns might be expected; students who perform academically well enough to enter a selective institution are more likely to take up a postgraduate programme. However, it does seem that those least likely to participate in undergraduate education are also less likely to progress to postgraduate study, even given the same level of academic achievement. We do not yet have evidence for why this is the case, and the extent to which finance may be a factor is not clear. We also need to know more about issues of equality and diversity in postgraduate study, for example the extent to which gender, ethnicity or disability may be a barrier to progression. We need to do more work to understand what 'fair access' means in postgraduate study and what might be done to improve it.

Outcomes from postgraduate study

Completion rates

127. HESA publishes information on retention and completion rates for undergraduates as part of its key performance indicators for institutions⁴². However, no such information is currently available for students on taught postgraduate courses. We recognise this as an information gap that needs to be addressed.

128. HEFCE collects and publishes rates of qualification from PGR degrees, most recently in May 2012, covering full-time starters in 2008-09 and 2009-10 (nearly 19,000 students)⁴³. The reports show that within seven years of commencing their research degree, about 75 per cent of students will complete, 3 per cent will qualify with another research qualification and the remainder will leave with no award. HESA performance indicators for 2008-09 full-time first degree students show that a comparable proportion – 78.8 per cent – are expected to qualify from their original institution with a degree while 12.3 per cent get no qualification, with a further 6.0 per cent transferring to another institution.

129. We have not published recent data on completion rates for part-time PGR students. The diversity of part-time provision, its flexibility and the small cohorts make the data difficult to capture and interpret accurately. The data we have are therefore insufficiently robust to project study outcomes.

⁴² Available at www.hesa.ac.uk/content/view/2072/141/

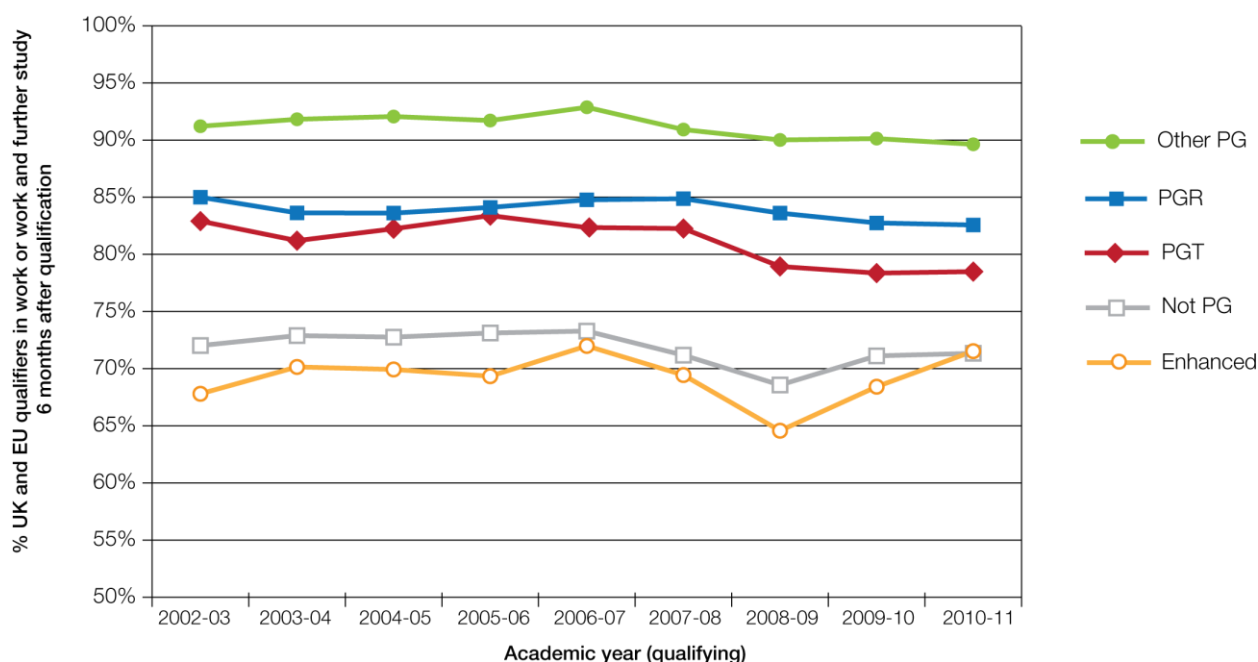
⁴³ 'Rates of qualification from postgraduate research degrees : Projected study outcomes of full-time students starting postgraduate research degrees in 2008-09 and 2009-10' (HEFCE 2012/10), available at www.hefce.ac.uk/pubs/year/2012/201210/

Employment

Employability and earnings

130. Holding a higher degree appears to offer better employment prospects. Data from the DLHE survey, taken six months after graduation, show that those holding higher degrees are more likely to be employed – see Figure 12. Note that this figure does not include those going on to further study only; around 20 per cent of those holding ‘enhanced undergraduate’ qualifications (integrated masters) go on to a further qualification without working, explaining their relatively low position in the figure.

Figure 12. Employment rates of UK and EU qualifiers six months after graduation



Source: HESA DLHE data

Note: There is a discontinuity in the time series between 2006-07 and 2007-08, where the wording of the question on studying changed.

131. Those holding Other postgraduate qualifications such as a PGCE are most likely to be employed. This may reflect the vocational nature of these qualifications, but also that many Other postgraduate students study part-time and are already in employment.

132. Postgraduates are also more likely to be employed in the longer term. The most recent ‘longitudinal DLHE’ survey, which surveys graduates 40 months after graduation, found that 2.3 per cent of postgraduate qualifiers were unemployed (2.7 per cent of those studying full-time and 1.7 per cent of those studying part-time) compared with 3.8 per cent of first degree qualifiers⁴⁴. There were some differences in employment rates by subject; among full-time students, the areas of architecture, building and planning, computer science and creative arts had unemployment rates of over 4 per cent.

⁴⁴ ‘DLHE longitudinal survey’, 2006-07 cohort, available at www.hesa.ac.uk/index.php?option=com_studrec&Itemid=232&mnI=08019

133. There is also evidence that postgraduate study may deliver an earnings premium. The longitudinal DLHE survey shows median salaries of around £24,000 for those with only an undergraduate degree and £30,000 for postgraduates.

134. The 2010 Sutton Trust report found that postgraduates have higher starting salaries than undergraduate qualifiers (£24,000 compared with £19,500 in 2008) and that those with masters degrees and PhDs earn 15 per cent and 23 per cent more respectively over their lifetime than those with only an undergraduate degree. The further report in 2013 revisited this using data from the Office for National Statistics' Labour Force Survey. It concluded that a postgraduate could expect to earn an average of £5,500 more per year (£200,000 over a 40-year working life) than someone with only a bachelors degree. It argued that this exacerbates social and educational inequalities, since postgraduate students increasingly come from higher-income backgrounds.

135. The 'One step beyond' report similarly found evidence for a postgraduate 'premium' using DLHE data. It noted that those who have studied part-time tend to have particularly high average earnings, which may be due to being older or in existing employment, but cautioned that the 'postgraduate premium' may differ between subjects: business and administrative studies postgraduates earn 36 per cent more than first degree holders, whereas the difference for language and engineering students was only 11 per cent.

136. A survey by BIS found that men and women holding a masters degree enjoyed an earnings premium of 8.9 per cent and 10.3 per cent respectively compared with those with an undergraduate degree, while those with doctorates earned a premium of 16 to 17 per cent⁴⁵. This study found that the Exchequer also benefitted through additional tax and National Insurance payments, with the net benefit over a lifetime for masters graduates being approximately £67,000 for men and £44,000 for women, whereas for doctoral graduates the benefit was £90,000 for men and £41,000 for women.

137. A 2010 report found that there is still a high demand from businesses for candidates with Masters and PhDs⁴⁶. The qualities most valued were subject-specific specialist knowledge, research and technical skills, and analytical and problem-solving skills. Leadership and entrepreneurial skills and general 'work-wisdom' were not scored as highly, and were identified as areas that higher degree programmes should look to address. This was echoed in the 2011 Principal Investigators and Research Leaders Survey run by Vitae, which found that while academic leaders were confident about their research skills, they were less confident about more general work skills such as leadership, performance management and budget management⁴⁷.

138. A 2010 review of the 'Roberts money' for developing transferable skills in researchers, led by Alison Hodge, found that the funding had resulted in improvements to the understanding of

⁴⁵ 'The returns to higher education qualifications', June 2011, available at

<https://www.gov.uk/government/publications/higher-education-qualifications-returns-and-benefits>

⁴⁶ 'Talent fishing: What businesses want from postgraduates', March 2010, available at www.cihe.co.uk/talent-fishing-what-businesses-want-from-postgraduates/

⁴⁷ 'Principal Investigators and Research Leaders Survey (PIRLS)', available at www.vitae.ac.uk/policy-practice/448681/Principal-Investigators-and-Research-Leaders-Survey-PIRLS.html.

these skills' importance and to training provision⁴⁸. However, progress still needed to be made in embedding this skills development in researcher training. Vitae continues to provide support and guidance for this work.

139. The Wilson Review of business-university collaboration, published in February 2012, recommended improvements in how businesses and universities co-operate with each other⁴⁹. It also raised the need to understand and improve postgraduate employability, and provide postgraduates (both taught and research) with the necessary skills and experience for work and enterprise, for example through internships. The report noted the recent increase in postgraduate study and commented that skills development for taught postgraduates 'merits separate consideration'. The review recommended further research into postgraduate employability and the views of employers about postgraduate knowledge and skills.

Types of employment

140. Table 5 compares the employment destinations of undergraduate and postgraduate leavers who entered employment in 2010-11. It can be seen that postgraduate leavers are proportionately more likely to be managers and senior officials or to enter professional occupations (such as law, health or architecture).

Table 5: Employment destinations of UK domiciled leavers at UK HEIs in 2010-11.

Standard occupational classification	Postgraduate leavers		First degree leavers	
	Number	%	Number	%
Managers and senior officials	8,670	12%	13,550	8%
Professional occupations	38,480	55%	43,160	25%
Associate professional and technical occupations	15,640	22%	54,075	31%
Administrative and secretarial occupations	2,885	4%	14,415	8%
Skilled trades occupations	205	0%	1,610	1%
Personal service occupations	1,260	2%	11,480	7%
Sales and customer service occupations	1,475	2%	21,385	12%
Process, plant and machine operatives	110	0%	815	0%
Elementary occupations	800	1%	10,745	6%
Unknown	155	0%	450	0%
Total	69,685	100%	171,685	100%

Source: HESA DLHE data

⁴⁸ 'Research Councils UK response to independent review of researcher skills development', available at www.rcuk.ac.uk/Publications/policy/Pages/hodge.aspx

⁴⁹ 'A review of business-university collaboration: The Wilson review', February 2012, available at <https://www.gov.uk/government/publications/business-university-collaboration-the-wilson-review>

141. These overall figures hide differences in employment area by subject studied. For example, 43 per cent of those with a business and administrative studies qualification are managers and senior officials, 90 per cent of those with an education qualification are in the professional occupations, and 48 per cent of mass communication and creative arts graduates are in associate professional and technical occupations.

142. Vitae produces a series called 'What do researchers do?' using longitudinal DLHE data to identify the career paths of doctoral graduates three and a half years after graduation⁵⁰. Reports from 2010 and 2013 (using the 2008 and 2010 longitudinal DLHE surveys respectively) showed similar results, suggesting that doctoral graduates occupy a wide variety of occupations. Half are in education (44 per cent in higher education), either as researchers or as teachers and lecturers. In 2010, 6.5 per cent were in research and development (a reduction from 9 per cent in 2008). The remainder were in a wide variety of jobs, including industry, manufacturing, education and business administration, demonstrating that doctoral graduates do not automatically progress to careers in HE. Career types differ by subject area, with science graduates being more likely to engage in research careers than arts and humanities.

143. As well as confirming that doctoral graduates enjoy high employment rates (over 90 per cent) and a salary premium, the 2013 Vitae report suggested that doctoral graduates were more 'recession-proof' than those with masters or good first degrees, having fared better than these groups during the economic downturn.

Professional qualifications

144. Postgraduate qualifications are also important to key areas of the public sector, such as education, health and social services. Some of these roles, such as teaching or social work, offer relatively low private gain to the individual student but high public gain to society.

145. Many professions, such as law, require a postgraduate qualification as a licence to practice. Alan Milburn's report, 'Unleashing aspiration', noted the importance of postgraduate study to many professional qualifications, but raised concerns that high fees might prevent those from lower-income backgrounds taking on such courses⁵¹. Professional doctorates have provided a new avenue for growth in postgraduate education during the last decade. As enhanced degrees may also be an access route into the professions, we should consider whether their concentration in highly selective institutions constitutes an access issue.

Evidence from institutions

146. Every year we ask institutions to send us annual monitoring statements reporting on key processes, and we take this opportunity to ask questions about current issues. In 2012, we asked institutions whether the undergraduate funding reforms were having any impact on recruitment, and whether institutions were making any changes to their packages of courses.

⁵⁰ 'What do researchers do?', series of reports, available at www.vitae.ac.uk/policy-practice/513201/What-do-researchers-do.html

⁵¹ 'Unleashing aspiration: the final report of the panel on fair access to the professions', July 2009, available at <http://webarchive.nationalarchives.gov.uk/http://www.bis.gov.uk/policies/higher-education/access-to-professions/panel-on-fair-access-professions>

Although we did not specifically ask about postgraduate provision, this was mentioned by many respondents. We also sought anecdotal evidence from institutions at visits and events.

147. These interactions revealed a high level of concern over postgraduate provision, particularly taught programmes. Several institutions mentioned that home applicants for PGT programmes were showing changes in behaviour, and that funding was a particular concern. Changes included fewer applications, students not taking up confirmed places due to inability to secure funding, and increasing enquiries about bursaries. Even where recruitment had held steady, institutions felt that this might change as worries about debt increased and funding became more difficult to secure. Overseas recruitment was also a concern, although no general trend has yet emerged. Institutions expressed concerns that the diversity of the postgraduate population would reduce, and planning become more difficult. In this context, many were reviewing their postgraduate provision.

Section 3: Building up evidence about the postgraduate sector

Summary

- This section summarises some of the work that HEFCE and others are undertaking to address gaps in our knowledge about the postgraduate sector.
- Finance for students and institutions is a key concern. Fees for postgraduate courses are unregulated and the evidence shows that fees for PGT courses in particular are very variable. We are collecting this information via the HESA record.
- We have commissioned research into the costs of PGT provision using TRAC methodology.
- We are working with Government to identify possible options for student finance and are considering the work of bodies such as the HEC and NUS in this area.
- We have commissioned research into the information needs of PGT students, which will result in further work to provide guidance to institutions and potential students.
- We will work further to understand and respond to fair access issues, building on the transition work detailed in Section 2.
- We are working to understand student motivations for studying (or not studying) at postgraduate level and have commissioned a pilot 'intentions after graduation' survey linked to the 2013 NSS.
- We need to provide more evidence about the impact of postgraduates on the economy and society, and we are working with others to understand this.
- We are also seeking to place our work in an international context.

148. Section 2 demonstrated that we already hold a good deal of information about postgraduate provision in England, but there are still gaps in our knowledge. We have, therefore, set up a number of work strands under our postgraduate policy to investigate these, and have commissioned further research from external parties. Other bodies in the sector, as well as

independent academics, are researching and commenting on aspects of postgraduate provision. We are seeking to keep abreast of such work as far as possible, with a view to ensuring that we are able to pull all these strands together in our advice to Government and in our own policy and funding. We have been involved in some of this external work, for example by contributing evidence or through membership of steering groups. Section 3 summarises some of the work that we and others are undertaking.

Financial issues

149. Section 1 showed that postgraduate provision operates in a mixed economy and is funded from many sources, including Government (via HEFCE and the Research Councils), charities and businesses, as well as banks operating either with public subsidies or at market rates. Section 2 showed that students themselves also make a very significant financial contribution to their own study, especially at PGT level, but that a comprehensive student loan system would be challenging to instigate.

150. Different funding sources operate in different postgraduate areas. In considering how best to fund this provision, therefore, it is unlikely that any 'one size fits all' funding model will be successful. Several options may need to be considered.

151. In order to inform a realistic funding model in the future, we need to know how much postgraduate provision costs, and what fees are being charged for it. We do not have robust evidence on this and we are working to improve our understanding.

152. HEFCE contributes to postgraduate students' financial support through its grant to institutions, which helps institutions to maintain their income levels, particularly in the highest-cost areas, and benefits students through its impact on fee levels and on the availability and quality of provision. However, as a central source of information, with a remit from Government to promote student opportunity and protect the student interest, we are also seeking to maintain an overview of the funding support available and of the ideas under discussion.

Fees

153. Fees for undergraduate courses are subject to regulation and are currently capped at a maximum of £9,000 per year. As postgraduate provision is not regulated, institutions are entitled to charge whatever fees they wish. Institutions set fees based on a number of considerations, including the actual cost of the course, the funding available from Government, and what the market will bear. Taught masters degrees in business studies, for example, are relatively low-cost and attract no government funding, but command high fees due to the level and nature of demand from individuals, whereas PGR STEM subjects are high-cost but have relatively low fees due to the level of government subsidy.

154. Some institutions have reported an assumption from students and the wider public that postgraduate fees 'should' be more than undergraduate fees due to the higher level of study. Some had concerns that undergraduate students might feel that they were subsidising postgraduates.

155. HEFCE does not assume that postgraduate fees should be at a particular level. However, our cost-based funding for PGT and our cost- and quality-based funding for PGR seek to enable students to access postgraduate study in the best possible study and research environment. Unlike undergraduate fees, postgraduate fees are generally charged 'up-front' and so students

must have funding available from some source. We are working to determine what fees are currently being charged, so that all the parties concerned with the postgraduate economy can take an informed approach.

Postgraduate taught

156. With regard to taught postgraduate courses, we know that the fees charged are very variable, within and between institutions. The highest fees charged tend to be for MBAs. A HEFCE report in October 2009 showed fees ranging from around £4,000 to £10,000 in a multi-faculty HEI, whereas in a specialist institution fees for an MBA were found to be £16,185⁵². A UUK report considering entrants to PGT courses in 2011-12 found a range of £2,970 to £33,100 for most masters courses depending on subject, but for an MBA this could rise to as much as £53,900⁵³. These courses are outliers, however: UUK found a median standard fee of £4,605 for 2011-12 entry, with around 50 per cent of institutions charging a standard fee of between £3,500 and £4,500⁵⁴.

157. With undergraduate fees rising to £9,000 (albeit not paid up-front), there was some concern that institutions would raise their taught postgraduate fees to the same level. A UUK survey of a sample of members in summer 2012 suggested that institutions were intending to raise their standard fee by around 10 per cent between 2011-12 and 2012-13, but this varied considerably between respondents. Informal conversations between HEFCE officers and institutional staff at meetings and events have revealed a similarly diverse picture, with most believing that some fee rises are inevitable, although some institutions are keen to keep fees as low as possible in order to attract the best students, regardless of income.

158. In order to obtain more comprehensive information, fee information for home and EU PGT students (as well as undergraduates) is now being collected via the HESA record, beginning in the academic year 2012-13. These data will first be published in December 2014.

Postgraduate research

159. PGR fees are not regulated either. However, where students receive a stipend from a Research Council which also pays their tuition fee, the level of the fee is paid annually by the Research Councils collectively, and the student cannot be asked to pay more than this amount. The indicative fee level for 2012-13 is £3,828 (it will rise to £3,900 in 2013-14⁵⁵). In practice, institutions generally charge a fee at or close to this level for all home and EU students on research degree programmes. As a result, PGR fees for home and EU students appear not to have increased to the same degree as those for PGT, and are lower than those for UG and PGT. This has implications for cost recovery if fees do not enable HEIs to cover the costs of providing PGR provision. Research may be subsidised from other areas, but this may not be sustainable in the long term.

⁵² 'Survey of fees for postgraduate taught and part-time undergraduate students', October 2009, available at www.hefce.ac.uk/whatwedo/lt/howfund/archive/reviewofpricegroupsandfeeassumptions/

⁵³ 'Analytical briefing A-2011-01: Taught postgraduate funding and finance', Universities UK, September 2011, available by request.

⁵⁴ 'Standard' fees are calculated based on price bands, but the actual fee charged varies considerably depending on such factors as the cost of the provision and what the market will bear.

⁵⁵ See www.rcuk.ac.uk/researchcareers/postgrad/Pages/home.aspx

Costs

160. Institutions currently use the TRAC for Teaching survey to provide information annually about the costs of their taught provision. This informs the sector and the Government about the resources required to support an excellent, sustainable higher education system. However, these surveys do not separate PGT from undergraduate costs. We are interested in knowing whether the cost of PGT delivery differs markedly from that for undergraduate provision, as this will help to inform funding models. Even if there are differences, they may vary widely between subjects and institutions.

161. In this context, we commissioned the consultants KPMG to investigate how these costs might be disaggregated, with the further aim of providing information and guidance to institutions. KPMG are currently working with a pilot group of institutions to identify cost drivers and identify a costing methodology. We expect that the findings from this initial work will inform a further study with a larger sample of institutions, which will report in 2014.

162. Some work has already been done to identify PGR costs. A 2005 TRAC report by JM Consulting looked at the costs of training and supervising PGR students and found that, while these were highly variable, they were less than the funding received⁵⁶. A further study of research costs was carried out between 2007 and 2011, and found that the costs were different from those used in existing funding models, but varied so widely that it was difficult to establish agreed relativities⁵⁷. The results are not used in the current funding method, but could inform future reviews. This is clearly a challenging area, requiring further work in the future.

Information for postgraduate students

163. Providing information to help undergraduate students choose what and where to study has been part of HEFCE's work for some time, resulting in a Key Information Set (KIS) for undergraduate students. The KIS provides a standardised and comparable set of basic information about a course and the student experience. It is not intended to be comprehensive, but can help students in making their choice. There is no direct equivalent of the KIS for postgraduate students, although several information web-sites exist, such as www.prospects.ac.uk and www.findamasters.com.

164. The KIS includes a summary of results from the NSS for which there is no direct postgraduate equivalent. Although the Higher Education Academy's PTES and PRES cover some similar areas, these survey results are not published at an institutional level.

165. The 2011 Higher Education White Paper asked HEFCE to consider the information needs of taught postgraduate students. In response, the Higher Education Public Information Steering Group, chaired by Professor Janet Beer, commissioned two concurrent strands of research in 2012: investigating the information needs of PGT students and how these could be met

⁵⁶Costs of training and supervising postgraduate research students: A report to HEFCE by JM consulting Ltd', February 2005, available at http://webarchive.nationalarchives.gov.uk/20120118171947/http://www.hefce.ac.uk/pubs/rdreports/2005/rd01_05/

⁵⁷'Review of research cost relativities based on the Transparent Approach to Costing (TRAC) methodology: Report by J M Consulting to the UK higher education funding bodies', October 2011, available at www.hefce.ac.uk/pubs/rereports/year/2011/tracreviewrcosts/

(undertaken by I-Graduate) and a feasibility study of developing a survey of PGT students (undertaken by NatCen Social Research).

166. Findings from the I-Graduate information needs project suggest that a wealth of information is available about postgraduate study, it lacks coherence and is often difficult to find⁵⁸. Key points were:

- a. While students look for a range of information, they are particularly interested in specific course content, modules and employment outcomes. There is a disjunction between the general information needed about an institution or the nature of PGT study, and specific information about a particular programme.
- b. Prospective students, especially those from overseas, value information being available as much as a year in advance of the course start date.
- c. Students give more weight to the course than the institution, so course-level information is important.
- d. Students value up-to-date information on the costs of study and living.
- e. Potential students like to have human contact for inquiries, particularly current students.
- f. Students would value guidance on what questions to ask.
- g. There may be a case for a central portal to draw information together. This might be a new independent web-site but might result from building on an existing web-site.
- h. One major gap was in knowing the information needs of students who took up postgraduate study after a long break, as these students were not in the system and it was very difficult to know how to contact them.

167. In the light of these findings, the Higher Education Public Information Steering Group will consider four key areas of future work:

- a. Providing advice and guidance to institutions on the information needs of prospective PGT students.
- b. Developing a 'toolkit' of guidance for prospective PGT students.
- c. Understanding the information-seeking behaviour of prospective PGT students.
- d. Understanding the information needs of prospective PGT students currently outside the HE system.

168. The NatCen research found that there was some support for a PGT student satisfaction survey, as there is no single source of data for postgraduate student satisfaction across all UK institutions⁵⁹. However, this was not thought to be sufficient to justify such a large-scale exercise, given the existence of other information. It would be costly, with no guarantee of good response rates, especially if it caused 'survey fatigue'. Most importantly it might not be the best way of

⁵⁸ 'Understanding the information needs of postgraduate taught students and how these can be met', April 2013, available at www.hefce.ac.uk/pubs/rereports/year/2013/pginfoneeds/

⁵⁹ 'The feasibility of conducting a national survey of postgraduate taught students,' available at www.hefce.ac.uk/pubs/rereports/year/2013/pginfosurvey/

meeting student needs, and the information set proposed by the I-Graduate research was thought to be a better source of information. This conclusion may be reviewed at a later date, but a survey is unlikely to go ahead in the immediate future.

169. Information for postgraduates will form part of a major review of the provision of information about higher education, to be undertaken by HEFCE and partners in 2013. Information needs for PGR students are another area for further work.

Fair access and social mobility

170. We know that there are challenges to enabling fair access to postgraduate study; some of these were highlighted in Section 2 under discussion of transition rates. However, these are not necessarily the same as for undergraduates. Financial barriers may well be important – as the requirement for up-front fees and the increase in levels of undergraduate debt might be perceived to affect those from lower income backgrounds disproportionately – but there is not yet clear evidence for this. As the work on transition rates in Section 2 showed, the socio-economic background of postgraduate students may also influence their choices as to postgraduate study. This information is not routinely collected, making it difficult to address any particular problems, so this is a key area for future work.

171. An additional problem is that we do not know what fair access measures we should use for a postgraduate student. While parental background or POLAR quintile may be relevant for a student who progresses directly from undergraduate to postgraduate study, it may not be so for those who begin postgraduate study after a long gap and are themselves in employment; this is particularly relevant for part-time and mature students.

172. We have included postgraduate issues in our programme of work to develop a national strategy for access and student success⁶⁰. We are working to identify whether and how we might promote fair access for those students who might not otherwise have the chance to study at postgraduate level.

173. As noted in Section 2, there has been a recent decline in part-time study, particularly for UK-domiciled taught postgraduates. This is a significant part of the postgraduate sector and undergraduate numbers have also declined; it is therefore important to understand the reasons for this decline. HEFCE is working to learn more about undergraduate and postgraduate part-time participation, with a view to potentially enhancing flexible, diverse and innovative modes of study.

Attitudes to postgraduate education and indicators of demand

174. Although the PTES and PRES give some indication of motivations for study, they are not comprehensive surveys, nor do they capture the views of those who have elected not to progress to postgraduate study. There are many reasons why a first degree graduate may not wish to continue studying. However, there is no comprehensive information about attitudes to postgraduate study, and it is difficult to assess whether there is unmet demand, or any areas where support might be needed.

⁶⁰ 'National strategy for access and student success: Interim report to the Department for Business, Innovation and Skills by the Higher Education Funding Council for England and the Office for Fair Access', 18 January 2013, available at www.hefce.ac.uk/news/newsarchive/2013/name.78843.en.html

175. Our knowledge of demand for postgraduate study is also limited by the lack of a postgraduate applications service analogous to UCAS. The UK Postgraduate Application and Statistical Service (www.ukpass.ac.uk), which is run by UCAS, is limited by the extent to which institutions choose to subscribe; even those that do may not put all of their courses on the site. We do not know, therefore, how many people apply to study at postgraduate level or how application numbers compare with actual enrolments. This means we will be unable to monitor any changes in applications trends, for example as a result of the undergraduate funding reforms.

176. Work is under way to address some of these gaps in available evidence.

Intentions after graduation survey

177. We are currently piloting an Intentions After Graduation Survey (IAGS), which is accessed from the 2013 NSS. It asks final-year undergraduates about their post-graduation intentions. As the survey is linked to the NSS, it targets almost all students in UK institutions when they are likely to be considering postgraduate study. Because NSS responses are linked to student records, we will be able to analyse IAGS responses by many established measures, including socio-economic background, subject and institution type, to see whether trends differ between these areas. We can also track students through future studies, and can therefore see if their actions match their stated intentions.

178. The IAGS asks students what they intend to do after graduation: go on to further study, enter employment, or something else. It asks about what might motivate them to take up postgraduate study, and conversely, what might put them off.

179. The 2013 pilot of the IAGS was successful, with 70 per cent of those who responded to the NSS completing the IAGS (over 134,000 students). We therefore expect to continue the IAGS for at least another three years. By comparing the responses of pre-fee-reform undergraduates (in 2013 and 2014) with those who have experienced the higher fees (2015 onwards), we hope to get an early indication of any changes in demand, and which groups and subjects are most affected. We will produce a report of the results of the 2013 IAGS in the autumn.

BIS historical demand study

180. BIS is funding a study into historical demand for postgraduate courses (taught and research). The study is investigating applications records at a sample of institutions to determine whether demand has changed over time. HEFCE sits on the steering group for this project, which will report in autumn 2013.

Employability and impact of postgraduates

181. Reports such as 'One step beyond', the Council for Industry and Higher Education's 'Talent Fishing' and the Wilson review have noted that postgraduates need to be better prepared for the jobs market, and that their value to the economy and society needs to be better quantified and demonstrated. While postgraduates appear to enjoy some advantages in the employment market, this is not universal across all subjects, and the recession has increased the imperative for graduates to be highly employable. This will require institutions to work with employers to determine what skills are needed and valued, and businesses to have an appropriate level of input into programme development, which may lead to increasingly flexible delivery approaches.

We know relatively little about what employers, either in the public or private sector, want from postgraduates or how they might decide about investing in postgraduate provision.

182. HEFCE is working with partners to fill some of these information gaps. In response to the Wilson recommendations UUK has commissioned research to investigate employability and employer-institution collaboration for taught postgraduate students. HEFCE is involved in this project as a member of the steering group. The project is considering how far universities collaborate with employers in the design and delivery of masters courses, and the value that employers place on postgraduate-level skills, with the aim of informing future policy and practice.

183. Alongside this, Research Councils UK, HEFCE and the other funding councils have commissioned research into the contribution of doctoral graduates in the workplace. This seeks to track doctoral graduates over a number of years to investigate their career pathways, their impact in employment and how they contribute to innovation and competitiveness.

184. In addition, HEFCE will continue to analyse DLHE and longitudinal DLHE data to learn more about trends in destinations, and intends to continue contributing to Vitae's research into doctoral careers.

International comparisons

185. We wish to understand how the postgraduate system we have described is situated internationally. Accordingly, HEFCE, in consultation with other UK funding councils, has commissioned research to compare the postgraduate systems operating in other countries with those in England and the UK, starting in June 2013. The project is to identify effective and innovative practice, and to highlight areas where the UK is an international leader and where it could consider learning from other countries. There are three key areas for investigation.

- a. **Quality:** How different countries perceive 'good quality', in terms of degree outputs and graduate attributes, and what drives this perception.
- b. **Fair access:** Whether differences in participation by different groups are a concern in other countries, and if so how it is addressed.
- c. **Impact in employment:** This will include consideration of how the labour market outcomes of postgraduate study, in terms of job type and salary premium, differ between different countries, and whether the impact of graduates in the workplace is assessed.

Section 4: Conclusions and future work

Conclusions from this report

186. In this report, we have shown that there are many reasons to be positive about the state of the postgraduate sector. It has emerged from being perceived as a neglected area to one which commands a great deal of attention from institutions, Government and the public. It is a strong and diverse sector in terms of the students it attracts and the provision it delivers. It has enjoyed a long period of growth and is highly competitive on the world stage. Postgraduate students are positive about their experiences, and holding a postgraduate qualification confers a number of advantages in terms of employability and skills. The economy and society in turn benefit from this. In addition, our postgraduate programmes continue to attract a significant number of international students and to enhance the UK's reputation abroad.

187. The postgraduate sector remains a thriving and successful area of higher education, but there are material issues to be explored and addressed if it is to remain strong and sustainable into the second half of this decade. The past two years have shown declines in some areas, in particular part-time PGT and Other postgraduate, and we need to know more about why this is happening. Most students in these areas are from the UK, and this decline is commensurate with that in the part-time undergraduate market. The recession and the contraction of the public sector are no doubt factors influencing investment decisions. The reliance on international students for full-time provision makes the sector vulnerable to volatility in this market, with some subject areas facing particular risks.

188. While PGR numbers are holding steady, they are founded on substantial public investment, and may be vulnerable to fluctuations in the PGT market. The data show that students are increasingly entering PGR with masters qualifications, and the PTES confirms that entrance to PGR is a common reason for studying PGT. We must also be alert to challenges to the competitiveness of our postgraduate research programmes, in terms of their perceived quality and the finance available to attract the best students.

189. This is in the context of a new fees, finance and funding landscape, within which the notion of a block grant supporting all activities is challenged by the divergence of policy towards undergraduate, PGT and PGR education. The effect of the undergraduate reforms on postgraduate education cannot yet be known, but there are significant potential barriers to progression in this new environment.

190. In response to the requests in our grant letter from BIS, we have worked to fill gaps in our knowledge about postgraduate provision. We are gathering information about the variety of fees charged for PGT courses and whether it will be feasible to separate out their costs. We have found out more about the information needs of PGT students, and will be supporting them and institutions in this respect. Our NSS-linked intentions survey will give us an insight into the motivations behind undertaking or refraining from postgraduate study, and whether students' views change once they become subject to fee reforms.

191. We need to do more. Early findings from the research into transition reveal the need to understand more about how different factors can affect progression, and the implications of this for fair access and social mobility. There are also information gaps in areas such as postgraduate employability and impact, completion rates and how the UK's postgraduate provision compares internationally. These will be the subject of further work by HEFCE and partners in 2013-14.

192. Some of the reports published during the last year have assumed that Government must address perceived financial barriers and that there may be one unifying solution. As noted in Section 2, several suggestions for loan schemes have been offered, but it is not yet clear that such a scheme would be a feasible or desirable option. It is not, for example, clear whether it would be appealing to recent graduates who have already incurred significant debt, or to the mature students with other financial commitments who make up a large part of the part-time market. The part-time undergraduate market has also declined, despite newly available loans. In addition, the Government could potentially require regulation to control expenditure, equivalent to the student number control introduced in the undergraduate market, which would profoundly change a sector that has thrived in a largely deregulated environment.

193. The diverse and complex nature of the postgraduate sector, which has benefited from a mixed-economy approach, requires an equally diverse approach to policy, funding and support, bringing together the different contributors and beneficiaries seen in Figure 1, as follows:

- a. Students are direct beneficiaries of postgraduate education, and may take a considerable financial risk in self-financing their studies.
- b. Institutions are the principal providers of postgraduate education, from which they gain academic as well as financial benefit, and which spans the dual missions of teaching and research. It is in institutions' interests to enable students to access this education, and increasingly they are seeking to provide bursaries and scholarships for those in financial need.
- c. Banks can provide loans, but may be limited in the amount of risk they are willing to take on, while students may not wish to take on additional debt. However, banks also lend to institutions, and they may have some interest in risk-sharing with Government and institutions.
- d. The Government is the chief provider of funding and finance, much of which is administered through HEFCE and the Research Councils, and also takes on some risk from PCDLs. It also benefits from postgraduate education as an employer through the public services, and through the broader economic and social benefits bestowed by highly skilled postgraduates.
- e. Industry and other employers benefit from postgraduates with the highest levels of skills and knowledge; they may sponsor employees through their studies and work with institutions to develop new programmes.

HEFCE responsibility and policy development

194. HEFCE has a specific duty, shared with the Research Councils, to administer public funding for postgraduate education and to set expectations and conditions for that funding. As a centrally placed organisation with widespread contacts among key participants, and with developing expectations from Government and students of protecting the student interest, we consider that we have a broader role. Following the Government's request for us to 'take steps as far as possible to support postgraduate provision', we consider that funding, while vital, should not be our only contribution, and that we should not work in isolation. We need to maintain an awareness of developments in the postgraduate sector through gathering and analysing evidence, and to work with others to ensure that the sector remains strong and sustainable for the future, and meets the demands of students and society.

195. During the last year, we have stimulated a dialogue on postgraduate education with universities and colleges, sector representative bodies, BIS, Research Councils and banks. In May 2012, we held a seminar to which we invited colleagues from the sector, representing a range of institutional types and interests, to discuss their perceptions of the postgraduate situation. Comments made at that meeting have helped to shape our work on the cross-cutting theme, including access, employability, economic impact and funding. We will hold a similar event in June 2013.

196. In January 2013, we held a round-table meeting to discuss perceived challenges to PGT funding and provision. The meeting was attended by the Minister for Universities and Science,

David Willetts. Other delegates included representatives from higher education institutions, related sector organisations, industry and banks. The discussion raised many of the concerns highlighted in this report, and identified the need for a plural response to them⁶¹.

197. We will continue to explore potential funding methods. For example, we will refine our understanding of PGT fees and costs to determine what level of cost-based supplement may be justified, and whether the current allocation of up to three years of PGR funding remains appropriate.

Further work and proposal for funding

198. Although the reports published during the last year have raised awareness of the patterns and policy issues in taught postgraduate education, we still do not know enough about the factors that influence student demand, the areas where a deficit of postgraduate study might be perceived, or the ways in which fair access might apply at this level.

199. Universities and colleges are in good financial health and appear to be exploring ways in which they can sustain their postgraduate markets. We consider that a more effective and sustainable approach might be to help the sector to find its own solutions, by providing some funding to stimulate research and investment in the postgraduate sector.

200. We therefore propose to make £25 million available in 2013-14 for proposals that link HEFCE funding with institutional and other sources of finance to test different ways of stimulating the domestic taught postgraduate market. This will include projects that involve the following.

- a. Engagement with professional bodies to enhance access to taught postgraduate programmes that serve as a route into the professions.
- b. Matched funding with donors and institutions for bursaries for taught postgraduate students.
- c. Partnerships between institutions and lenders, individually or in groups, to explore models for financing taught postgraduate study.
- d. Joint funding with industry of taught postgraduate programmes.
- e. Outreach to undergraduate students from under-represented backgrounds (both within and outside the institution), to encourage and support their progression into postgraduate study.
- f. Innovations to minimise the cost and maximise the accessibility of taught postgraduate education.
- g. Research into the motivations and requirements of part-time taught postgraduates, and models for stimulating part-time study at this level.
- h. Measures to support the retention and success of taught postgraduates who are part-time or from currently under-represented groups.
- i. Development of indicators to monitor patterns and inform funding at this level, including typologies of participation and provision.

⁶¹ A full note of the roundtable meeting is available at www.hefce.ac.uk/whatwedo/crosscutting/pg/.

j. Research to enhance our understanding of the information available to taught postgraduate students (for example through existing web-sites), of how students are using it and of how it could be improved.

201. The key criterion for financial support will be the potential for the project to influence and benefit other institutions across the sector, including providing evidence to inform government policy, and we will seek to support a balanced portfolio of projects to achieve this.

202. In addition, we will seek to prioritise projects that:

- address skills needs identified by industry that support the Government's growth sectors
- support the progression of under-represented groups into the professions or postgraduate research
- enhance our understanding of the part-time taught postgraduate economy, the barriers to the admission and retention of part-time students at this level, and the ways in which these could be addressed
- support students who would not otherwise have undertaken taught postgraduate education
- attract funding from other sources, which would not otherwise have been provided.

203. These projects will be undertaken during 2013-14 and 2014-15. Participants will be expected to share their findings with one another and across the sector, and these findings will inform discussions about the policy and funding approach from 2015, when the time when the first undergraduates who have paid higher fees enter postgraduate education.

Continuing work on the postgraduate cross-cutting theme

204. We will continue to engage with the sector as our work progresses, through seminars, visits and other events. We will report on progress in new and existing work on our postgraduate web-page and through further published reports. We welcome comments from the sector and other stakeholders on our approach.

205. Our policy on postgraduate provision will remain a complex and challenging area of work as we prepare for the first postgraduates emerging from the new undergraduate fees and finance system in 2015. The diversity which is a strength of the sector means that 'one size fits all' policies will not be appropriate. However, we are confident that by working with others we can maintain a strong and dynamic postgraduate sector for the future.

Annex A: Types of postgraduate provision

1. In discussing HEFCE's approach to 'postgraduate' provision, we are referring to study which involves more challenging learning than that in an undergraduate degree. This is therefore provision which is classified as at level 7 or 8 in the Quality Assurance Agency for Higher Education (QAA)'s Framework for Higher Education Qualifications (FHEQ), or as second or third cycle in the Framework for Qualifications of the European Higher Education Area. This annex is based on the QAA qualification descriptors. Further details of programmes are available in the QAA documents 'Masters degree characteristics' and 'Doctoral degree characteristics'⁶².

Table A1 – Number of entrants to postgraduate courses at English HEIs in 2011-12, split by detailed postgraduate level

Postgraduate group	Detail of course aims	Postgraduate entrants at English HEIs in 2011-12	
		Number	%
Postgraduate research	Doctor of philosophy (PhD), new-route PhD ⁶³ , Master of philosophy (MPhil)	29,300	11%
Taught masters	Masters degrees including Master of Business Administration (MBA) and Master of Research (MRes)	163,885	60%
Other postgraduate	Postgraduate certificate in education (PGCE) and postgraduate qualifications in health and social care, veterinary science and architecture	27,815	10%
	Professional taught masters and postgraduate qualifications in education and healthcare	7,525	3%
	Masters level study for diplomas, institutional credit and other qualifications	40,155	15%
	Degree level courses with an undergraduate prerequisite ⁶⁴	6,755	2%
Total		275,430	100%

⁶² QAA's 'Masters Degree Characteristics', March 2010, available at www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Masters-degree-characteristics.aspx. and 'Doctoral Degree Characteristics', September 2011, available at (www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Doctoral_characteristics.aspx).

⁶³ The new-route PhD is an integrated programme of postgraduate training which combines research with a structured programme of advanced training in discipline specific and generic skills.

⁶⁴ Includes courses leading to registration with the Architects Registration Board.

2. HEFCE wishes to take a broad and inclusive approach to postgraduate provision and to consider all types when determining policy, including those which HEFCE does not fund directly.

3. Table A1 gives some examples of the three types of postgraduate provision (PGR, PGT and Other postgraduate) used in this report alongside the numbers of entrants to these courses in 2011-12 (note that these are the students commencing their courses in this year, not all students). Table A2 describes postgraduate qualifications in more detail.

Table A2 – Summary of postgraduate qualifications

Title	FHEQ level	Time for study (full-time equivalent)	Key points	HEFCE funding
Masters degrees and PGCEs	7	Usually one year	May be taught, research or a mix. Some are professional qualifications.	Subject to PGT funding (except professional) <5% funded by Research Councils.
Integrated masters	7	Four years	Taken in combination with a bachelor's degree.	Treated as undergraduate for funding purposes
Postgraduate Diploma	7	Two-thirds of a year	Advanced short course, often vocationally orientated and taken while in employment.	Funded as PGT
Postgraduate Certificate	7	One-third of a year	As Diploma.	Funded as PGT
PhD/DPhil	8	Three to four years	Requires independent work and usually original research.	PGR dual support – HEFCE funds quality-related element
Professional doctorate	8	Three to four years	Doctoral programme with a taught element, targeted around a particular profession, often delivered in the workplace.	PGR dual support – HEFCE funds quality-related element

Taught programmes

Masters degree (FHEQ Level 7)

4. These programmes contain a varying balance of taught and research elements; most are taught (but will probably contain a research project), but some are more strongly research-based. In practice, both 'taught' and 'research' masters contain both elements. There is also a third category of 'professional' or 'practice'.

5. Masters degrees have increased intensity, complexity and density of study compared with undergraduate study, certificates and diplomas, and typically include planned intellectual progression that often includes research or scholarly activity. They may be full or part-time, and may include distance learning. Their content is very diverse and determined by the institution.

6. It is sometimes suggested that there are three broad categories of masters degrees:

- **Extension** of knowledge in a particular area
- **Conversion** to a new discipline
- **Vocational**, for employment in a particular profession.

7. With the exception of integrated masters, masters degrees are generally taken by graduates who already hold a bachelors degree with honours. Students must demonstrate critical awareness of current problems and new insights at the forefront of their discipline, have a comprehensive understanding of research and scholarship techniques, and show originality in the application of knowledge. They must be able to evaluate and criticise methodologies. They should be able to act autonomously, continue to advance their learning and deal with complex issues.

8. Study is usually equivalent to a full-time calendar year. Longer, research-based courses exist, either for research-led professions where a PhD is not required, or before starting a PhD. Such a course may be either an MRes or an MPhil and may take two years.

9. A very small number (less than 5 per cent) of masters are funded by the research councils, usually for courses that prepare people for further research or which increase the supply of people with particular skills. Practice varies widely between research councils and this is much more significant in the arts, humanities and social sciences.

Integrated masters degree (FHEQ Level 7)

10. These degrees, also called 'enhanced undergraduate' degrees, are taken in combination with a bachelor's degree and typically take four full-time academic years, or equivalent. They are common in science, engineering and mathematics.

11. Degrees entitled Bachelor of Medicine, Surgery, Veterinary Medicine or Science and so on also span several levels and are in fact at level 7.

Master of Business Administration (MBA)

12. This is a one year, full-time management qualification. It is usually taught but incorporates a dissertation or project, and may have a link to a specific industry.

Credit

13. According to QAA guidance, a masters degree should entail a minimum of 180 credits, 150 of which are at masters level. Integrated masters have 480 credits of which 120 are at masters level.

Postgraduate certificate and postgraduate diplomas (FHEQ Level 7)

14. There is a range of postgraduate certificates and diplomas offered at level 7, often vocationally orientated. These result from advanced short courses. A 'certificate' implies study equivalent to at least one-third of a full-time academic year and a 'diploma' is equivalent to at least two-thirds of an academic year. They are often taken on a part-time basis while in employment.

Professional courses

15. These programmes are connected to a profession and are usually a requirement for the student to progress in their chosen career. These may include:

- a course that is necessary to practice such as law, architecture, social work
- a course that provides professional accreditation, such as civil engineering
- a course that is designed as a route into a particular profession or sector, but carries no formal recognition.

16. A particularly significant qualification in terms of student numbers is the Postgraduate Certificate in Education (PGCE), a one year full-time masters course that trains graduates as teachers. Funding is provided through the Teaching Agency. Other professional courses include MBA (Master of Business Administration), LPC (Legal Practice Course) and RIBA (Royal Institute of British Architects).

Research programmes

17. Research qualifications require a greater amount of independent study, and research and analysis skills. Depending on the subject it may be usual to begin a programme holding a bachelor's degree or its professional equivalent, which in science and engineering is increasingly an integrated masters degree. Some register for a masters and then transfer on successful completion of the first year.

18. Researchers may receive training in a real or virtual 'graduate school'. Doctoral training centres which concentrate research council funding are also being established.

Doctor of Philosophy (PhD/DPhil) – FHEQ Level 8

19. Students must demonstrate the creation and interpretation of new knowledge, or application of existing knowledge in a new way, at the forefront of an academic discipline (usually through original research), and should be able to contribute to the development of new techniques, ideas or approaches.

20. Holders will be able to work autonomously, make informed judgements on complex issues in specialist fields and have an innovative approach to tackling and solving problems.

21. PhDs and DPhils (the terms are used interchangeably) are qualifications where assessment is by a final thesis or published work, or by artefact or performance accompanied by a written commentary. However, some new models include a larger element of teaching or skills

training to reflect the fact that more PhDs go on to careers outside academia. The 'integrated PhD' is one of these.

22. Study is usually equivalent to three to four full-time calendar years.

Doctoral programmes with a taught element (Professional doctorates) – FHEQ Level 8

23. These doctorates have a research component but a substantial taught element, and usually have the discipline name in the title awarded (such as EdD). Professional doctorates aim to develop an individual's professional practice and support them in producing original knowledge that will contribute to professional practice in general. These qualifications are often designed and delivered in collaboration with employers, and may be undertaken in the workplace.

Higher doctorate (not a funded qualification)

24. These degrees are awarded to established postgraduates or academic staff, in recognition of outstanding academic achievement.

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List of abbreviations

BIS	Department for Business, Innovation and Skills
DLHE	Destinations of Leavers from Higher Education survey
EU	European Union
FHEQ	Framework for Higher Education Qualifications
HE	Higher education
HEC	Higher Education Commission
HEFCE	Higher Education Funding Council for England
HEI	Higher education institution
HESA	Higher Education Statistics Agency
IAGS	Intentions After Graduation Survey
KIS	Key Information Set
KPMG	The name of a consultancy firm
NSS	National Student Survey
NUS	National Union of Students
PCDL	Professional Career Development Loan
PGCE	Postgraduate Certificate in Education
PGR	Postgraduate research (PhD, MPhil)
PGT	Postgraduate taught (Masters degree)
POLAR	Participation of Local Areas
PRES	Postgraduate Research Experience Survey
PTES	Postgraduate Taught Experience Survey
QAA	Quality Assurance Agency for Higher Education
RCUK	Research Councils UK
STEM	Science, technology, engineering and mathematics
TRAC	Transparent Approach to Costing
UCAS	Formerly the Universities and Colleges Admissions Service
UKPASS	UK Postgraduate Application and Statistical Service
UUK	Universities UK