Postgraduate Education in the United Kingdom

Higher Education Policy Institute

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Contents

Purpose and arrangement of this study

1. The primary aim of this study is to describe the postgraduate sector in the UK by presenting publicly available information in a convenient format. It also offers some tentative conclusions.

2. In most cases, figures have been given at a UK level. However, this is not as even-handed as it seems: it is possible to infer much about the English HE sector from UK figures because UK data reflects, overwhelmingly, what happens in England. It is far more risky to assume that patterns evident in the UK as a whole apply in Scotland, Wales or Northern Ireland (or indeed to any one of the nine English regions). In order to be confident of producing a report which properly reflected conditions in each part of the UK it would be necessary to produce four (or perhaps twelve) reports - which there was not time to do. Therefore, UK figures have been used except where the subject under discussion manifestly differs from one territory to the next (for example in funding policy, as well as in discussions of old and new universities, because it is not safe to assume that these categories have the same meanings in different parts of the UK). In these instances the report refers only to England. The report, therefore, has much to say on England and on the UK as a whole but does not pretend to offer the same level of insight into the postgraduate sector in Scotland, Wales and Northern Ireland.

3. Except where otherwise stated, figures for students from the EU countries are based upon the membership of the EU in the years prior to 2004[1]. Data for 1995-6 (the earliest year included in analyses) include students from the next most recent entrants, Sweden, Austria and Finland which joined the EC (as it then was) in January 1995.

4. A variety of different data sources have been used in compiling this report. Tables 1, 6, 7, 9, and 12 and figures 10, 11 and 13 use data commissioned from HESA for this report. In order to provide an acceptable time series, these data do not reflect recent changes to HESA population definitions. As a result figures can differ from equivalent figures in published HESA volumes. Tables 2-5 use data commissioned from HESA for the purpose of this report. As these data were not intended for incorporation in time series they are not subject to the above considerations. Tables 26-28 and table 32 show data also acquired from HESA, this time from the 2002-3 Destination of Learners in Higher Education Institutions unpublished at the time of writing. Figure 22 and tables 29 and 31 are based upon analyses of data collected by the Higher Education Funding Council for England for funding purposes. We are grateful to HEFCE for the use of these data. All other tables and figures make use of previously published data including those published by HESA. Of these, tables 15 and 16 present comparisons over time based upon student numbers published by HESA. These are not like for like comparisons and should not be considered as reliable as the other time series presented in this report.

[1] UK students are excluded. The countries covered are Germany, France, Italy, Spain, Netherlands, Belgium, Greece, Portugal, Austria, Sweden, Denmark, Finland, the Republic of Ireland and Luxembourg.

5. Thanks are due to the following for their help and advice: Clare Vasler, John Thompson, Mark Gittoes, Richard Puttock and Vasanthi Waller at HEFCE and Jonathan Waller, Anne Deverell and Izzy Garnier at HESA[2]. In addition to editing a very fine summary of this report for inclusion in the Times Higher Education Supplement Claire Sanders provided valuable intelligence on early reports of weak demand for postgraduate education in Anglophone countries in 2003-4. Thanks are also due to various members of the HEPI Advisory Board who provided valuable comments and advice on earlier drafts of the report. The responsibility for the report rests solely with HEPI and the author.

[2] With the exception of table 36, all of the tables which use HESA data as their source present reanalyses undertaken by HEPI. HESA bears no responsibility for these reanalyses. Where appropriate values in tables derived from HESA data have been altered to conform with HESA's rounding methodology.

Section 1. What is postgraduate education?

This section outlines the formal distinction made between levels of postgraduate education in England and goes on to describe the major types of postgraduate qualification awarded in UK universities and in particular the enormous diversity of taught masters degrees.

6. There is no single, definition of 'postgraduate' education. There are good reasons, in fact, to be sceptical about any analysis or commentary which presents postgraduates as a single group. Particularly anachronistic is the use of 'postgraduate' as shorthand for students studying for research doctorates. In 2002-3 only 9 per cent[3] of postgraduate qualifications awarded by UK Higher Education Institutions (HEIs) were doctorates.

7. A distinction is sometimes made between courses which are postgraduate in level - which is to say that they are more advanced than undergraduate courses with similar subject matter - and courses which are postgraduate only in the sense that they are studied by people who already hold degrees ('postgraduate in time').

Categorisation by level

8. The Quality Assurance Agency's National Qualifications Framework defines five levels of Higher Education Qualification. Of these three are undergraduate and two postgraduate: 'Masters level' qualifications (mostly taught courses which include postgraduate diplomas and certificates as well as masters degrees) and 'Doctoral level' qualifications (the great majority of which are examined on the basis of original research). The framework's main aim is to define qualification levels but it also includes guidance on qualification nomenclature, which relates the names given to qualifications to the level of the qualification and in some cases to other characteristics (it stipulates, for example, that certificates and diplomas should be described as postgraduate only if they conform to the appropriate level descriptors).

9. Existing arrangements, therefore, underpin a hierarchy of qualifications, in which most taught postgraduate qualifications occupy a middle position between undergraduate and doctoral qualifications. It is noteworthy that undergraduate certificates, diplomas and honours degrees each occupy different levels in the framework, whereas postgraduate certificates, diplomas and masters degrees occupy the same level. Consequently, the category into which almost all taught postgraduate qualifications fall - 'masters level' - is extremely broad spanning a range from a postgraduate certificate, typically requiring three months of full-time study and sometimes requiring no prior acquaintance with the subject, to an extended masters programme (often called MLitt or MPhil) taking up to two years of full-time study and intended for those with substantial relevant education[4].

[3] Calculation from data published by HESA in Students in Higher Education Institutions 2002-3 (table 14). There were a total of 164 350 postgraduate qualifications awarded in 2002-3 of which 14 875 were doctorates.

[4] A technical distinction needs to be made between masters degrees and 'masters level' qualifications (which in the QAA framework include postgraduate diplomas and certificates) of which masters degrees are a subset.

10. Doctoral qualifications are more homogenous. The great majority of doctoral students are pursuing research doctorates. In 2002-3, a little over 2 per cent of doctoral students were studying for qualifications not examined mainly by research.

Types of postgraduate education

Table 1: First year postgraduate students by qualification aim (2002-03).

	Number of students	Percentage change 1995-6 to 2002-03
Professional qualifications	7 805	2
PG Diplomas and certificates (not PGCE)	40 635	-18
PGCE	28 355	26
Taught Masters	118 700	42
Masters by research	10 080	-7
Doctorate by research	16 325	-3
Taught doctorate	585	101
Other higher	270	-74
Other PG	13 740	388[5]
Total	236 230[6]	21

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

Postgraduate diplomas and certificates

11. The formal HE qualifications obtained after the shortest period of study are typically described as postgraduate certificates or diplomas (certificates are typically shorter and require fewer credits than diplomas). According to the QAA qualifications framework, the prefix 'postgraduate' should not be used unless the achievements measured and outcomes achieved are at Masters level. It is therefore reasonable to presume that institutions offering these qualifications are guaranteeing that these courses go beyond what could be obtained from an undergraduate course. They are extremely diverse - some are awarded on the basis of the completion of units which also form part of a longer course (usually a taught masters); others, particularly those focussed upon

[5] This category includes study not explicitly linked to qualifications. For much of this period it would include students at the Open University whose registration did not record a specific qualification aim even where the student aimed ultimately to achieve a specific qualification. Numbers in the 'other' category increased from 2757 in 1995-6 to 15319 in 1997-8 and in the light of these subtleties, it is safest to presume that this spectacular increase reflects at least in part changing practice in the recording and classification of postgraduate study.

[6] In order to create something as close as possible to a genuine time series some changes to HESA data collection and recording practice are not reflected in these figures.

professional groups, are designed specifically to provide a grounding in a subject at postgraduate or practitioner level in a relatively short space of time. It is not known how many holders of postgraduate certificates and diplomas began with the intention of studying for longer courses[7] and it is therefore hard to estimate how far numbers of students reflect demand for these qualifications and how far they reflect demand for Masters and other courses. Certificates and diplomas often differ from most Masters degrees in that they do not include a requirement for a substantial dissertation or piece of original research.

12. The Postgraduate Certificate of Education (PGCE) is, in almost every respect, a special case. It requires a year of study (compared to three months for a typical postgraduate certificate), is essentially a conversion course (it confers upon graduates the same professional status as an undergraduate Bachelor of Education), students are offered substantial bursaries and demand is stimulated and to a great extent controlled by a dedicated government agency. PGCE students are overwhelmingly full-time (in marked contrast to other certificate and diploma students) and a large majority are female (the sexes are more equally represented in other postgraduate studies). As a result, there are very few meaningful generalisations which can be made about other postgraduate certificates and diplomas which apply fully to PGCEs.

Masters degrees

13. Typically a taught masters degree takes a year of full-time study (longer part-time) and is examined principally on the basis of taught units (it is very common to require a dissertation which is equivalent to several of the taught units).

14. The function of masters courses varies enormously (and one must assume that form is to some extent determined by function). Some courses cater for students with no prior knowledge of the subject and are therefore - functionally speaking - conversion courses. Others offer a ‘top-up’ for graduates in a relevant subject, offering an education similar in form to the final year of an undergraduate course but extending and broadening the student’s knowledge and engagement with research. Some courses are designed specifically to provide engagement with issues in professional practice and cannot therefore be placed on an academic trajectory culminating in the status of independent researcher (most MBAs fall into this category); whilst others are specifically designed to provide the skills necessary to pursue independent research and mirror the research training often provided to research students in their first year (most notably the MRes courses whose development has been supported by the UK research councils). This discussion cannot cover those courses which are specifically designed to carry professional accreditation or to fit in with credit frameworks external to the UK HE sector and whose content reflects these aims.

[7] HESA data on student qualification aim are an imperfect guide to demand for short programmes such as postgraduate certificates because students do not always have the same aims at the point at which these are recorded as they do when they decide to enter the institution

15. There are some longer taught postgraduate courses (such as the Oxford MLitt) which, whilst distinct from research degrees require a longer period of study than the normal one year full-time taught masters degree. These are comparatively rare.

16. Another class of Masters degrees (MPhil or MSc by research) are examined by research whilst not requiring candidates to produce research of sufficient weight to merit a doctoral qualification. These qualifications are sometimes used to recognise the achievement of doctoral candidates who discontinue their studies having already produced a significant piece of research. Many universities still register students intending to achieve doctoral qualifications as MPhil students: this does not necessarily imply that either party assumes that the MPhil is the ultimate objective of the student. This phenomenon has the potential to distort analyses based upon reported qualification aims (because a student may be recorded as aiming for an MPhil whilst in fact pursuing study with the intention of achieving doctoral status[8]).

17. The so-called 'undergraduate masters' qualifications offered to students who pursue extended undergraduate studies (typically in science subjects) are something of an anomaly. Generally, whilst the qualification may be deemed postgraduate in level there is no point in the last two years of study at which the student can be categorised straightforwardly as an undergraduate or postgraduate student. These courses by effectively integrating the content of a taught masters degree and final year undergraduate course raise questions about the notion of a qualitative leap between undergraduate and postgraduate study. These questions, however, apply to the whole taught postgraduate sector - it would be without foundation to suppose that the undergraduate masters gives particular cause for concern in this regard.

18. The MAs awarded by the ancient Scottish universities are undergraduate qualifications. The MAs awarded by the universities of Oxford and Cambridge are not academic qualifications at all.

Doctoral level

19. The traditional doctorate examined by research and normally requiring at least three years of full-time activity usually carries the title of PhD or DPhil. Successful completion usually requires the completion of a piece of original research which creates new knowledge. It is probably the most internationally transferable qualification and is recognised as the ultimate academic qualification in most advanced countries.

20. In recent years there has been a move to complement the UK PhD's emphasis upon original research with other elements designed to maximise the benefits of research study for the student and to combat social and intellectual isolation. The 'New Route PhD' - a recent innovation - is designed to integrate taught elements into a PhD programme without in any way affecting the requirement for candidates to make a

[8] For this reason, there is a general preference in this report for analyses which combine research masters and research doctorates under a single heading. This does not apply to analyses of qualifications awarded.

substantial contribution to knowledge through an original thesis. A similar approach is evident in the '1+3' masters plus PhD programmes pioneered by some of the UK research councils (although in these programmes taught elements will be very much front-loaded). The UK research councils through the Research Councils Graduate Schools Programme[9] have promoted and provided training for funded PhD students, much of it designed to help to apply the skills of a researcher in other contexts. The Quality Assurance Agency has recently published a revised code of practice for research degree programmes.[10]

21. Other doctoral qualifications, generally in professional subjects, usually contain a term which describes the subject of study (eg EdD – Doctor of Education). These doctorates usually contain a substantial taught component although the extent of the requirement for original research varies greatly - some qualify as 'mainly examined by research' whereas others do not. It is not merely in terms of the importance of original work and taught components that such doctorates can differ from the traditional PhD: the University of Middlesex, for example, awards doctorates in professional practice (DProf) which contain both a substantial taught component and a requirement for the completion of a project which demonstrates a significant contribution to practice (rather than to knowledge).

22. In science and engineering subjects, higher doctorates (usually called DSc - Doctor of Science) are sometimes awarded in recognition of outstanding work in a given field. Individuals receiving such awards will normally have established their reputations in their field.

Professional qualifications

23. Not all postgraduate courses which lead to professional accreditation lead to the award of postgraduate qualifications or credits. There are, therefore, students on professional courses who are categorised as postgraduates even though they are not studying for postgraduate academic qualifications. Conversely, many courses lead to the award both of professional qualifications (or credits) and of academic qualifications. It is not currently possible to say how many courses lead to the award of standard academic qualifications which also carry professional accreditation, although there are good reasons why policymakers might wish to do so[11].

[9] www.gradschools.ac.uk

[10] http://www.qaa.ac.uk/public/COP/cop/draft/CircularCL0408.htm

[11] Where professional study moves into the universities and attracts subsidy through the higher education funding councils, a portion of the costs of that study is transferred from the professional body (which will tend to recover costs from student and/or his or sponsor) to the HEI (which is able to recoup a portion of the cost from the taxpayer) and therefore from the profession to the community at large. It is not, currently possible to arrive at a credible estimate for this subsidy or the rate of its growth.

Other students

24. A substantial number of postgraduate students are studying with the aim of obtaining credits without formally aiming for a specific qualification.

Non-postgraduate level education accessed by graduates

25. Much of the education received by students after graduating is not specifically postgraduate and falls outside the scope of this report.

Section 2. Who studies for postgraduate qualifications?

This section outlines the composition of the 2002-3 population of postgraduate students. It shows that (PGCE students apart) women are more likely to be studying part-time and at a more advanced age than men and indicates the importance of part-time study to older learners. It observes that a majority of full-time taught masters students are overseas residents but also shows that home students dominate most other segments of the postgraduate sector. It goes on to discuss the entry qualifications of postgraduates, concluding that there is little to separate taught postgraduates from the general graduate population in terms of prior academic achievement, whereas on the other hand research postgraduates have much better first degrees than the average.

Gender

26. Amongst UK domiciled postgraduate entrants, women outnumber men by 43 per cent - and by 55 per cent amongst part-time students. The gap is less marked amongst full-time students - if PGCE students are excluded from the calculation, the number of full-time UK domiciled male and female postgraduates are almost identical[12]. The one segment in which men are substantially *better* represented than women amongst UK domiciled students is full-time study for research degrees. This may well be explicable with reference to subject effects: research funds - and consequently opportunities for research study - are concentrated in science subjects which tend to have higher levels of male participation.

[12] There are 25 506 men and 25 370 women

Table 2: First year postgraduates in English HEIs (2002-3)

		UK domiciled		Other EU		Non EU	
		F	M	F	M	F	M
PGCE	FT	16580	7325	575	160	155	70
	PT	3465	1470	20	0	15	10
Postgraduate Diplomas and Certificates[13]	FT	4665	3665	440	515	1165	1360
	PT	19670	10340	495	365	510	70
Taught Masters Degrees	FT	14665	15045	5455	6315	17725	20815
	PT	20900	16460	925	1120	1270	1700
Research Doctorates and research masters	FT	4635	5785	1095	1350	2515	4155
	PT	2455	2725	220	300	450	660
Other[14]	FT	1405	1010	225	200	295	320
	PT	13715	7735	530	445	310	430
Total	FT	41950	32830	7790	8540	21855	26720
	PT	60205	38735	2190	2235	2560	3505
	All	102155	71565	9980	10775	24415	30225

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

27. There is very little difference in the age profile of male and female postgraduates. The figures do not support the notion that women are more likely to access postgraduate education later in life - in fact, men in most categories are slightly more likely to be aged over 30 - although this may reflect a greater proportion of males amongst older graduates.

[13] It is common for postgraduate certificates and diplomas to be offered in the same subjects as taught masters degrees - the difference between the various qualifications being the amount of credit accumulated and - often - the requirement for a substantial dissertation on masters programmes. This means that some of those registered as masters students may leave with diplomas and certificates whereas some who register for diploma courses may upgrade to masters programmes.

[14] Includes those studying for postgraduate level modules with no specific qualification aim. The accumulation of credit bearing modules can lead ultimately to the award of qualifications even where no qualification aim is registered. Students at the Open University commit to modules rather than courses and have been returned as 'other' even when they have expressed clear qualification aims - greatly inflating the 'other' total.

Table 3: Percentage of UK domiciled first year postgraduates aged 30 or over

		Total	M	F
PGCE	FT	28	35	24
	PT	73	75	71
Postgraduate Diplomas and Certificates	FT	23	22	23
	PT	70	74	68
Taught Masters Degrees	FT	24	26	21
	PT	69	71	67
Research Doctorates and research masters	FT	21	21	21
	PT	73	73	72
Other	FT	20	21	19
	PT	71	73	69
Total	FT	24	27	23
	PT	70	73	68
	All	50	51	49

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

28. The table below shows the extent to which women predominate in most postgraduate sectors: although the pattern of large female majorities is not reflected in the figures for the taught masters degrees and research degrees.

Table 4: Percentages of males and females amongst UK domiciled postgraduates

	Female (per cent)	Male (per cent)
PGCE	70	30
Postgraduate Diplomas and Certificates	63	37
Taught Masters Degrees	53	47
Research Doctorates and research masters	45	55
Other	63	37
All full-time	56	44
All part-time	61	39
Under 30	60	40
30 or over	58	42
All postgraduates	59	41

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

Mode of study

29. As a general rule, the less study a course requires, the more likely it is to be studied part-time. The PGCE is a notable exception - it is noteworthy that it remains rare for graduate teacher training to be delivered part-time.

Table 5: Mode of study of UK domiciled first year students in English HEIs (2002-3)

	percentage studying part-time
Postgraduate Diplomas and Certificates	73
Taught Masters Degrees	35
Masters or Doctorate by research	26
PGCE	17
Other	87

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

30. A majority of entrants to all types of postgraduate course are older than 22 suggesting that the student who progresses from sixth form through undergraduate to postgraduate education is relatively rare. There are, in fact more *first year* postgraduates above the age of 30 than below the age of 25. Part-time students tend to be older than their full-time equivalents, a majority being over 30; and as the table below shows, the over 30s are a substantial majority amongst part-time students commencing every type of postgraduate course.

Table 6: Numbers of First year FT and PT students in each age band by qualification type

		Total	<21 (%)	21-2 (%)	23-4 (%)	25-9 (%)	30+ (%)	Not known (%)
Professional Qualifications	FT	2150	1	47	22	14	16	0
	PT	5660	1	4	9	25	57	4
PGCE	FT	24210	0	30	21	22	27	0
	PT	4145	0	2	7	16	74	0
Postgraduate Diplomas and Certificates	FT	11585	2	32	24	20	22	0
	PT	29050	0	3	7	19	69	1
Taught Masters Degrees	FT	78040	1	27	25	27	19	0
	PT	40665	0	4	7	21	67	1
Research Masters and Research Doctorates	FT	19260	0	25	22	27	26	0
	PT	7140	0	3	6	19	71	0
Other	FT	960	5	11	17	37	31	0
	PT	13365	0	2	5	16	75	1
Total	FT	136205	1	28	24	25	22	0
	PT	100025	0	3	7	20	69	1
	All	236230	1	17	17	23	42	1

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

Domicile

31. Overseas students, and in particular those from outside the EU, increasingly dominate the single largest segment of UK postgraduate education: full-time study for taught masters degrees. They are, however, very highly concentrated in this segment. Over half (52 per cent) of *all* overseas postgraduates are full-time taught masters students from countries outside the EU. This rises to over two thirds (68 per cent) if full-time taught masters students from other EU countries are included[15]. Consequently, the success of the UK in attracting overseas students rests to a very great extent upon the attractiveness of full-time study for taught masters degrees. Overseas residents are also well represented amongst the smaller numbers of full-time research students. Students studying for PGCEs and other postgraduate certificates and diplomas are overwhelmingly domiciled in the UK. Part-time study of all types is likewise dominated by

[15] These figures are derived from the same dataset as table 7

home students. The table below shows the differential impact of overseas students upon different segments of the UK postgraduate sector.

Table 7: Qualification type, mode of study and domicile (first year postgraduates 2002-3)

		Total	UK (%)	Other EU (%)	Non EU (%)	
Professional	FT	2150	89	5	5	100
Qualifications	PT	5660	99	1	1	100
PGCE	FT	24210	96	3	1	100
	PT	4145	99	0	1	100
Postgraduate Diplomas	FT	11585	71	8	21	100
and Certificates	PT	29050	93	3	4	100
Taught Masters Degrees	FT	78040	37	15	48	100
	PT	40665	88	5	7	100
Research Degrees	FT	19260	54	12	34	100
	PT	7140	77	8	15	100
Other	FT	960	46	19	35	100
	PT	13365	95	2	3	100
Total	FT	136205	54	12	34	100
	PT	100025	91	4	6	100
	All	236230	69	8	22	100

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

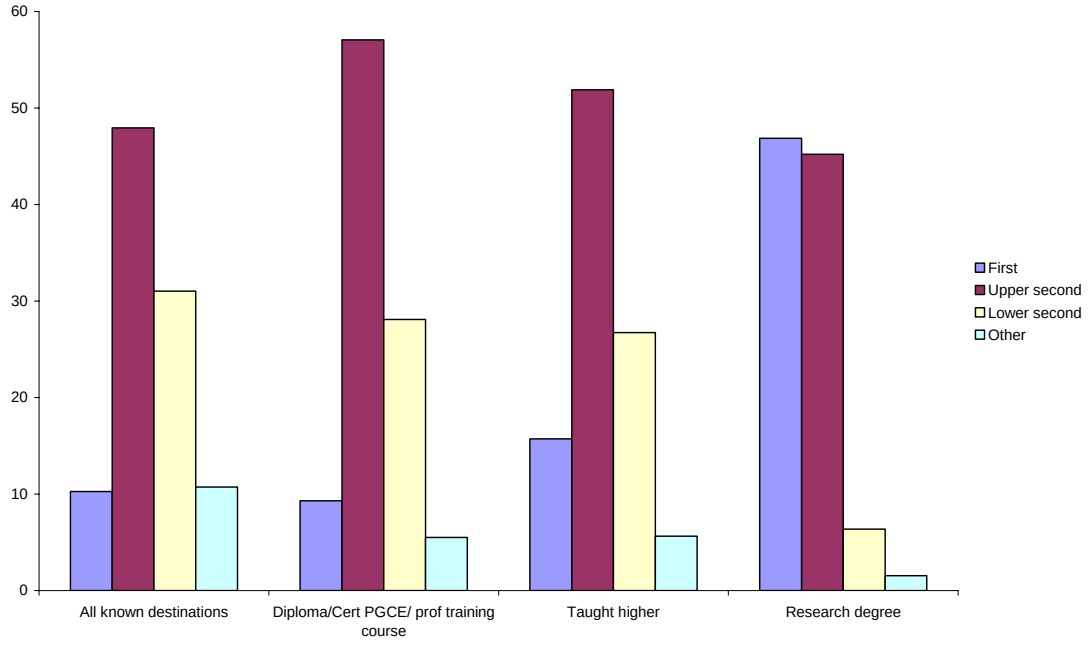
Qualifications on entry

32. Students studying for research degrees are much more likely to have achieved first class degrees than other graduates. Those studying for taught postgraduate qualifications, by contrast, have a similar profile to the general graduate population. The figures for masters students would probably differ even less from the graduate norm if students studying for masters degrees as a preparation for doctoral qualifications were excluded.

33. These figures relate only to those who proceed directly from undergraduate to postgraduate study, and the age profile of UK postgraduates (see table 6) suggests that such students may be a minority (and not necessarily a typical one). It would, however, be surprising if graduates who enter taught postgraduate study some time after

graduation were better qualified (in terms of first degree class) than those who do so immediately after graduation.

Figure 8: Percentage of first degree graduates giving first destination as postgraduate study in each degree class



Source: Reanalysis of data presented in HESA publication[16]

Social and economic class

34. It has been possible to analyse the social class of UK domiciled undergraduate students using data held by the Universities and Colleges Admissions Service (UCAS). These data are not available for postgraduate students and it is therefore extremely difficult to obtain a reliable picture of the backgrounds of those studying for postgraduate qualifications. It is somewhat easier to obtain data on those in the labour market who hold such qualifications - many of whom will have entered postgraduate study some decades ago - but the relevance of such data to current conditions is questionable.

35. This is not merely a problem for the intellectually curious. If numbers grow, the presence of a larger cohort of postgraduates has the potential to adversely affect the employment opportunities and life experiences open to those without postgraduate degrees where the returns to individual postgraduates are greater than the return to society. It is therefore important to know the extent to which access to postgraduate study is influenced by social and economic class and equally important to understand

[16] First Destinations of students leaving higher education institutions 2001-2

how access to postgraduate education influences access to lucrative or prestigious professions[17].

[17] Most potential postgraduates, regardless of social class will have either previous experience of Higher Education or some equivalent experience. Therefore, it is a reasonable inference that economic factors - familial and personal wealth and indebtedness have a greater impact upon postgraduate opportunity than cultural factors associated with social class per se.

Section 3. Trends in postgraduate study

Recent years have seen strong growth in taught postgraduate study and slower growth in research student numbers. Growth in taught masters and research study has been driven by overseas students but other segments less dependent upon overseas demand have also grown very strongly. New universities have been successful in securing a growing share of overseas students. Research students are highly concentrated in a relatively small number of institutions whereas taught postgraduates are relatively dispersed. Growth in income from overseas student fees, while substantial, accounts for only one eighth of the UK HE sector's total revenue growth between 1998-9 and 2002-3.

36. According to the Higher Education Statistics Agency, there were 236 230 first year postgraduate students studying in the UK in 2002-3. Whilst for many, the word 'postgraduate' implies a student pursuing original research with the aim of receiving a doctorate, such students are a minority within the postgraduate sector.

Table 9 - First year postgraduates in UK HEIs (2002-3)

	Number of students	**Absolute increase 1995-6 to 2002-03**	**Percentage change 1995-6 to 2002-03**
Professional qualifications	7 805	118	2
PG Diplomas and certificates (not PGCE)	40 635	-8964	-18
PGCE	28 355	5870	26
Taught Masters	118 700	35180	42
Masters by research	10 080	-813	-7
Doctorate by research	16 325	-488	-3
All Other PG	14 325	10245	251[18]
Total	236 230	41148	21

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

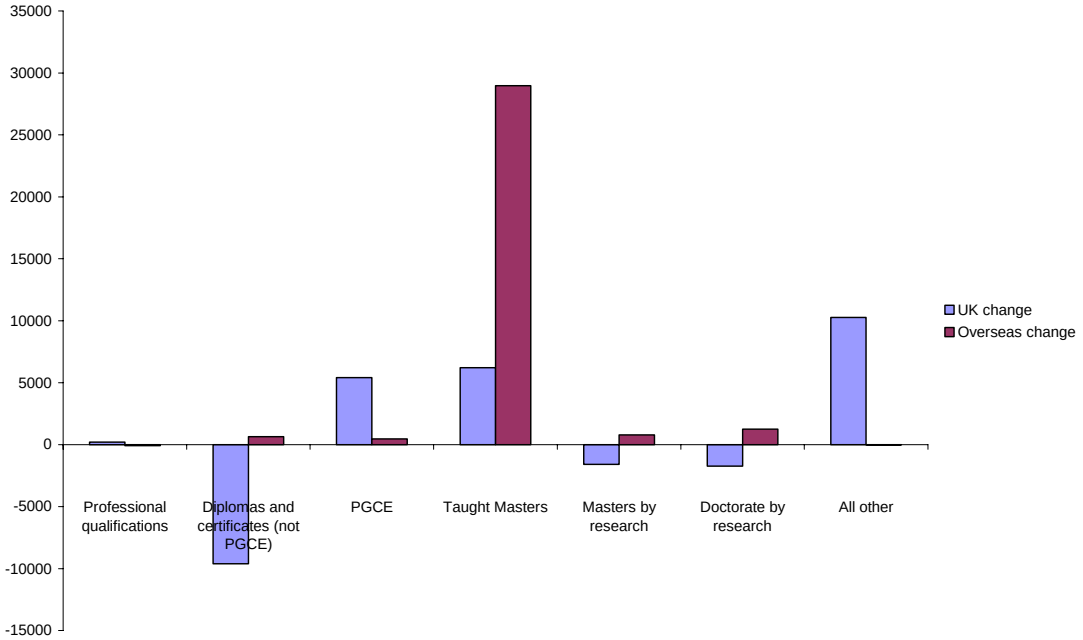
37. The story of postgraduate education in the UK in the late 1990s and early 2000s is in large measure the story of the expansion of taught Masters level qualifications. It is also the story of the success of UK universities in persuading overseas students to come to the UK to study for these qualifications. This study does not tell in detail the history of this success but there would be ample justification for a study which did just that. The UK Masters and other UK taught postgraduate qualifications have proved extremely popular, and their popularity is growing.

[18] This category includes postgraduate bachelors degrees (eg. BLitt) and doctorates not mainly examined by research but much the largest component will be study not explicitly linked to qualifications. For much of this period it would include students at the Open University - see footnote 4.

Taught courses

38. The healthy growth in postgraduate numbers in UK universities[19] seen in recent years is very largely accounted for by an increase in numbers of taught masters students from overseas.

Figure 10: Change in numbers of postgraduate entrants 1995-6 to 2002-3[20]



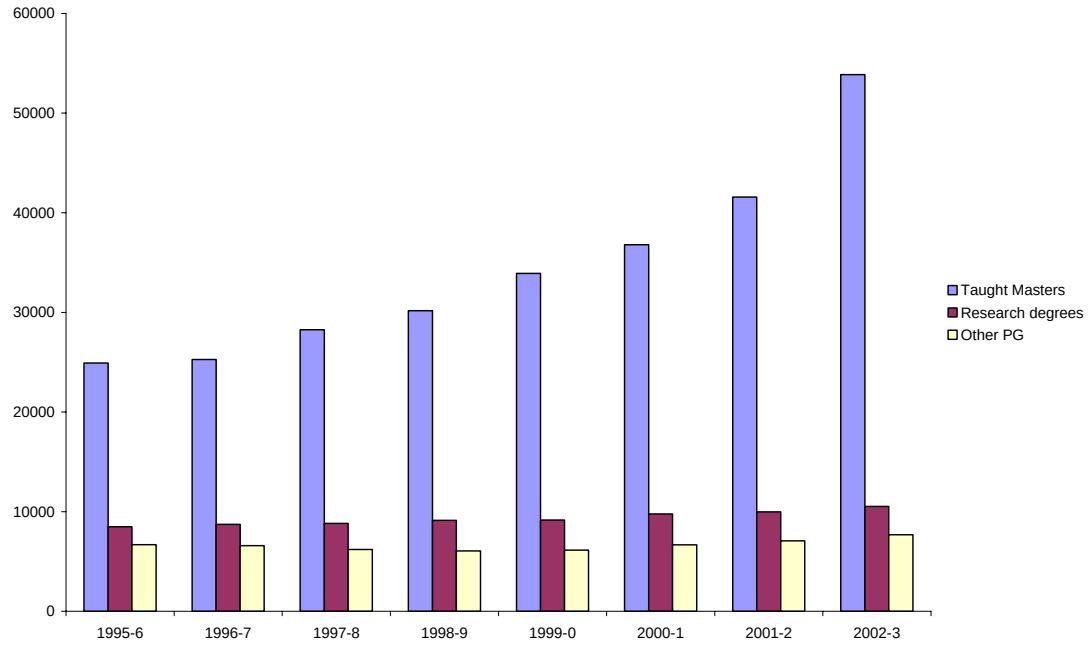
Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

39. A more detailed look at overseas student numbers places their growth into context. The suddenness of the increase in their numbers is remarkable. Numbers of overseas taught masters students more than doubled between 1996-7 and 2002-3.

[19] Numbers of first year postgraduates increased by 21per cent between 1995-6 and 2002-3

[20] All overseas students (EU and non EU) shown together. Based on first year postgraduate numbers.

Figure 11: Numbers of first year postgraduates from outside the UK



Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

40. The phenomenon of exceptionally rapid growth is specific to full-time students from outside the EU. Numbers of full-time non-EU taught masters students increased by 116 per cent between 1999-0 and 2002-3 and by 2002-3 stood at over 37 000. This is more than half of the total of all overseas postgraduates in UK Higher Education Institutions.

Table 12 Recent growth in taught masters students

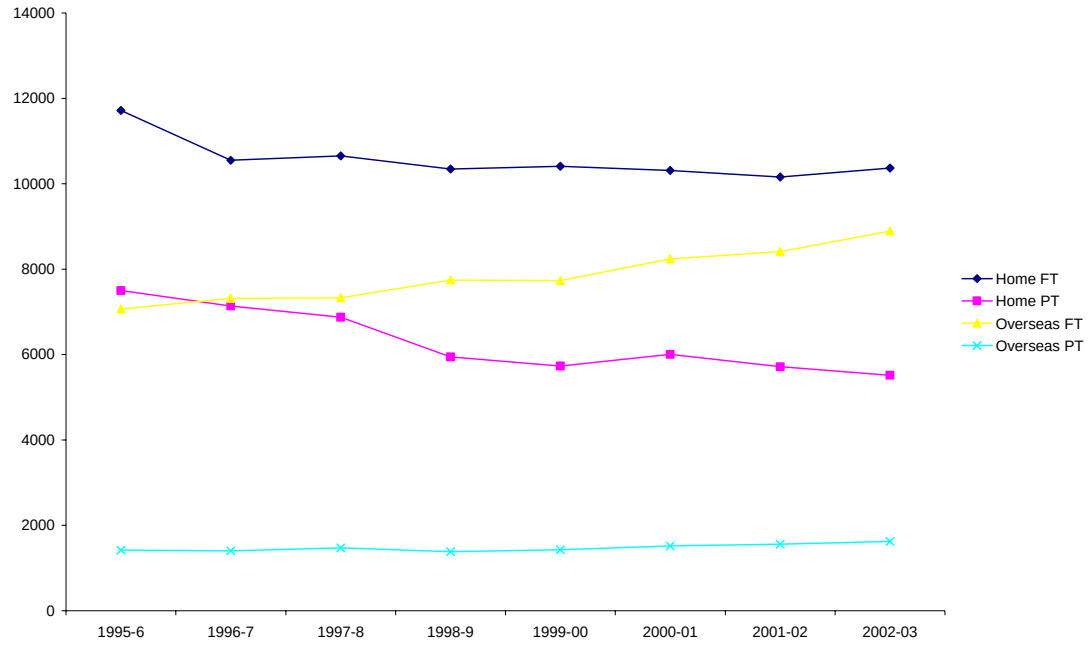
	1999-00	**2002-3**	**Increase**
UK part-time	34 415	35 593	1 178
UK full-time	25 023	29 236	4 213
EU part-time	1 821	2 066	245
EU full-time	10 999	11 556	557
Non-EU part-time	3 834	3 004	-830
Non EU full-time	17 254	37 246	20 172
Total	93 346	118 701	25 355

Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

Research degrees

41. Numbers of full-time UK domiciled first year postgraduate research students declined in the late 1990s[21], but have stabilised in recent years. This decline has been balanced by an increase in full-time overseas students. Numbers of part-time home students are in decline although as completion rates for part-time research students are low[22] this will not have the same ultimate impact upon the number of qualifiers as would a similar decline in full-time numbers.

Figure 13: Numbers of first year postgraduate research students[23]



Source: HESA student record (re-analysis of data commissioned by HEPI from HESA)

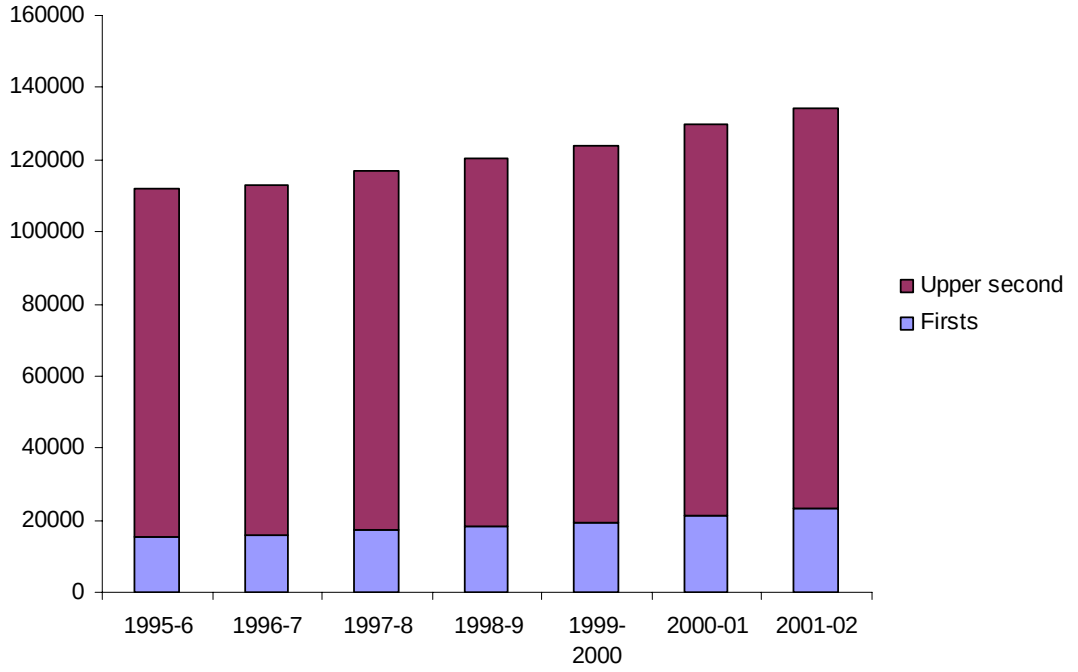
42. The chart below shows numbers of UK domiciled students achieving first class or upper second class honours degrees (a reasonable, if imperfect, proxy for the pool from which UK domiciled postgraduate research students are drawn). If that pool is growing, and no corresponding increase in research student numbers is evident, this suggests that the attractiveness of study for research degrees has actually declined (although a time-lag should be expected between any increase in numbers of firsts and upper seconds and increases in the postgraduate population).

[21] It is not possible to say how many of these students are studying for 'traditional' doctorates or research masters examined entirely on the basis of original research. It is likely that the totals include students studying for modular or professional doctorates which incorporate a substantial thesis alongside taught elements.

[22] PhD Research Degrees: entry and completion (HEFCE forthcoming). HEFCE makes no comment on whether completion rates for part-time PhD students could be considered to be low - this is the conclusion of the author.

[23] Chart based upon numbers of first year research masters and research doctorates

Figure 14: Numbers of UK domiciled students achieving first class or upper second class honours



source: HESA student record[24]

43. In 2002-3, overseas research postgraduate degree entrants represented a higher proportion of all overseas postgraduates than was the case for home students (14per cent compared to 11per cent students). They represent a large and growing proportion of entrants to research degree programmes and in 2002-3 accounted for 39per cent of doctorates awarded.

Trends in subject of study

44. It is difficult to make generalisations about the subjects which have grown most strongly in recent years. It is clear from the sector-wide figures presented in section 3 that growth has been driven by a rapid expansion of overseas student numbers. In some fast-growing areas however, overseas students remain a small proportion of overall numbers and growth has been driven by a further expansion of part-time study (which is overwhelmingly the preserve of UK domiciled students). It may be that we are witnessing two quite separate, if concurrent, phenomena: a steep rise in overseas student numbers and a more localised increase in part-time study in professional subjects the study of which has recently moved into the HE sector. The effect of both will be to stimulate an increase in supply which, until saturation point is reached, may well in itself stimulate demand as postgraduate study becomes a recognised part of personal and professional development and institutions invest more resources in marketing their courses.

[24] Re-analysis of data tabulated in Students in Higher Education Institutions (HESA 1995-6 to 2001-2)

Table 15: percentage change in numbers of first year postgraduates 1996-7 to 2001-02[25]

	Total increase (%)	FT increase (%)	PT increase (%)	Research degree increase (%)	Taught degree increase (%)
Combined	253	48	480	6	296
Subjects allied to medicine	96	41	122	37	106
Computer Sciences	81	103	36	51	85
Librarianship and information science	53	49	63	30	54
Creative arts and design	52	65	29	97	48
Law	48	52	39	4	50
Biological sciences	44	38	57	30	54
Education	38	21	59	46	38
Business and administrative studies	36	68	17	32	36
Mathematical sciences	25	12	57	14	31
Social economic and political studies	22	23	20	11	24
Humanities	18	18	17	18	17
Architecture, building and planning	15	-3	38	15	15
Languages	15	22	1	8	17
Engineering and technology	13	14	13	11	14
Agriculture and related	11	-10	185	2	14
Veterinary sciences	-1	5	-23	6	-6
Physical sciences	-2	3	-21	-2	-1

source: HESA student record[26]

Old and new universities

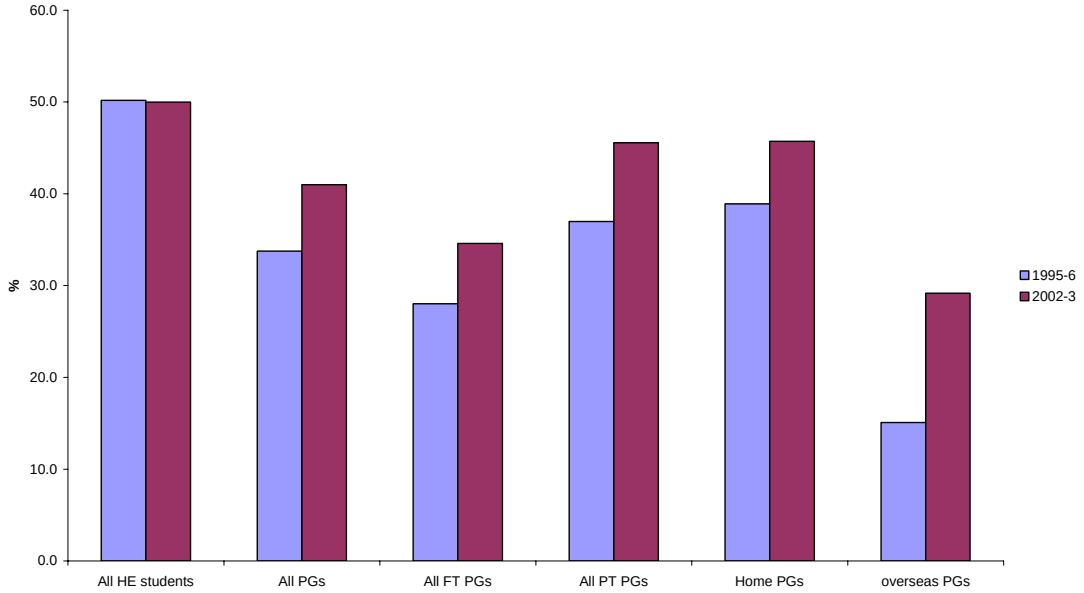
45. In England postgraduate student numbers have been rising fastest in new universities and colleges. Between 1995-6 and 2002-3, the number of postgraduate students in new universities and colleges increased from 103 701 to 170 855. This represents a significant increase in the share of the postgraduate population studying in these institutions. Moreover, these institutions were particularly successful in recruiting overseas postgraduate students. Their overseas student numbers jumped from 10 048 in

[25] This table uses broad subject areas discontinued by HESA after 2001-2 - hence the lack of data for 2002-3. This means it does not pick up the very strong growth in taught postgraduate study in 2002-3. For this reason whilst a reasonable guide to the relative growth of broad subject areas in the late 1990s is less reliable than some of the other tables presented in this report.

[26] Re-analysis of data tabulated in Students in Higher Education Institutions (HESA 1996-7 and 2001-2)

1995-6 to 34 700 in 2002-3 and in the process their share of overseas postgraduates almost doubled.

Figure 16: Non UFC institutions' share of PG students in England



source: HESA student record[27]

46. The message from these figures is clear enough. Over the past few years, new universities and colleges have been particularly successful in expanding their postgraduate provision (and their taught provision in particular). This probably reflects their history - in 1992 postgraduate study was a relatively marginal activity in most new universities. This both presented the opportunity for rapid growth from a low base and focussed managements on finding ways of entering the postgraduate sector.

47. The phenomenon may also be partly (but not entirely) explicable in terms of slow growth in numbers of postgraduate research students (which form a greater proportion of the postgraduate student body in old universities than in new universities and colleges). Postgraduate research students are much more heavily concentrated than taught postgraduate students.

Impacts of overseas students upon university finance

48. The fact that overseas demand for postgraduate education in UK universities has grown dramatically does not necessarily show that overseas postgraduates are capable of making a decisive contribution to the continuing expansion of the HE sector. Between 1998-99 and 2002-03 fees from overseas students (including undergraduates) increased by £449m, at a time when the UK sector's aggregate revenue increased by £3449m.

[27] Re-analysis of data tabulated in Students in Higher Education Institutions (HESA 1995-6 and 2002-3)

Over a period when overseas student numbers are increasing at a rate that will be very hard to sustain indefinitely, growth in their fees accounted for just over one eighth of overall revenue growth.

Table 17: Revenue and expenditure of UK HEIs (£m)

	98-99	**99-00**	**00-01**	**01-02**	**02-03**
Fees from non EU students (UG & PG)	636	672	746	875	1085
Total revenue	12113	12780	13494	14491	15562
Total expenditure	11925	12710	13544	14427	15352

Source: HESA finance record[28]

49. Little is known about the profitability (or otherwise) of provision for overseas postgraduates (although non-publicly funded teaching is known to be in surplus). This issue is discussed further in Section 5 (see paragraph 70). This makes any analysis of their role in funding other activities highly speculative. A cautious observer might conclude that institutional leaders should take great care before concluding that surpluses generated by teaching overseas students will obviate the need to bring core teaching and research activities into balance.

[28] Re-analysis of data tabulated in Resources of Higher Education Institutions (HESA 1998-9 to 2002-3)

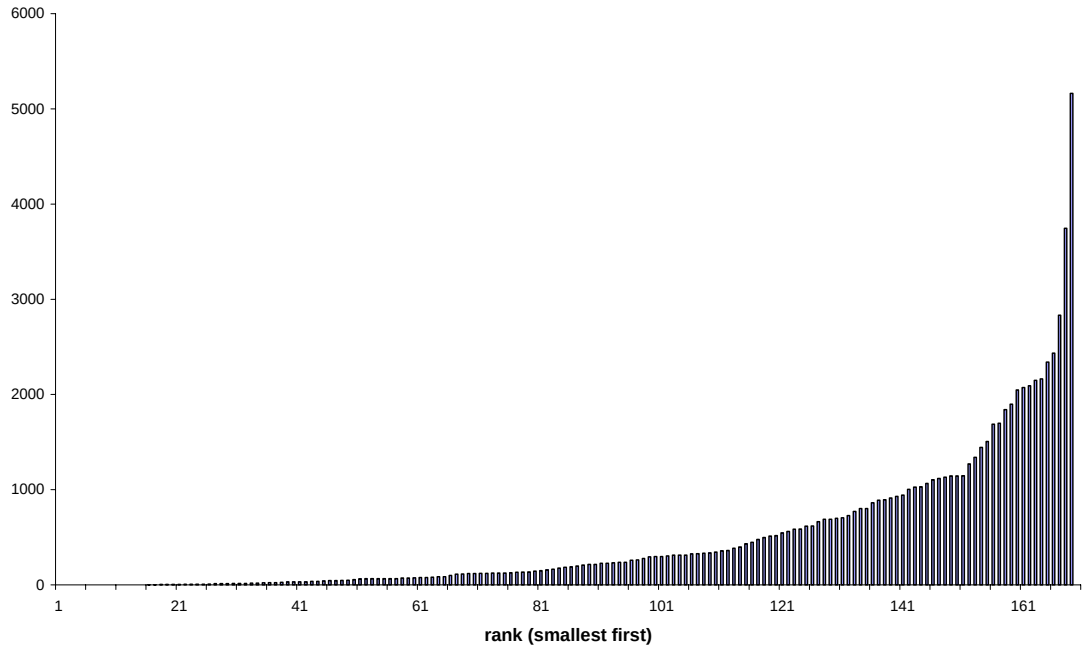
Section 4: Institutional differences and regional disparities

This Section investigates variations between institutions and identifies individual institutions with distinctive characteristics within the UK postgraduate sector. It shows that postgraduate research study is heavily concentrated in a small number of institutions whereas taught study is more dispersed. It also shows that the graduates of old universities are more likely to proceed to postgraduate study than the graduates of new universities. In its concluding section it shows UK regions differ markedly in their propensity to employ postgraduates educated in their institutions and in their propensity to employ postgraduates educated elsewhere.

Postgraduate research students

50. Postgraduate research students are highly concentrated in a relatively small number of institutions.

Figure 18: Numbers of postgraduate research students 2002-3 (UK HEIs- assumed FTE)[29]



Source: HESA student record[30]

51. Perhaps unsurprisingly, the institutions with the greatest number of postgraduate research students (PGR) are all multi-faculty institutions with established research reputations. The University of Cambridge has 44 per cent more PGRs than Oxford, which has the second largest number.

[29] Based on assumed FTE. This has been calculated on the basis that all returned full-time students are equivalent to 1 FTE and all part-time students 0.5 FTE

[30] Re-analysis of data tabulated in Students in Higher Education Institutions (2002-3)

Table 19: 10 institutions with the most postgraduate research students

	Assumed FTE[31]	Number of students
Cambridge	5163	6260
Oxford	3745	4335
Birmingham	2833	3875
Nottingham	2435	3315
UCL	2340	2750
Sheffield	2165	2730
Manchester (Victoria)	2150	2625
Leeds	2093	2625
Edinburgh	2073	2680
Imperial	2048	2395

Source: HESA student record[32]

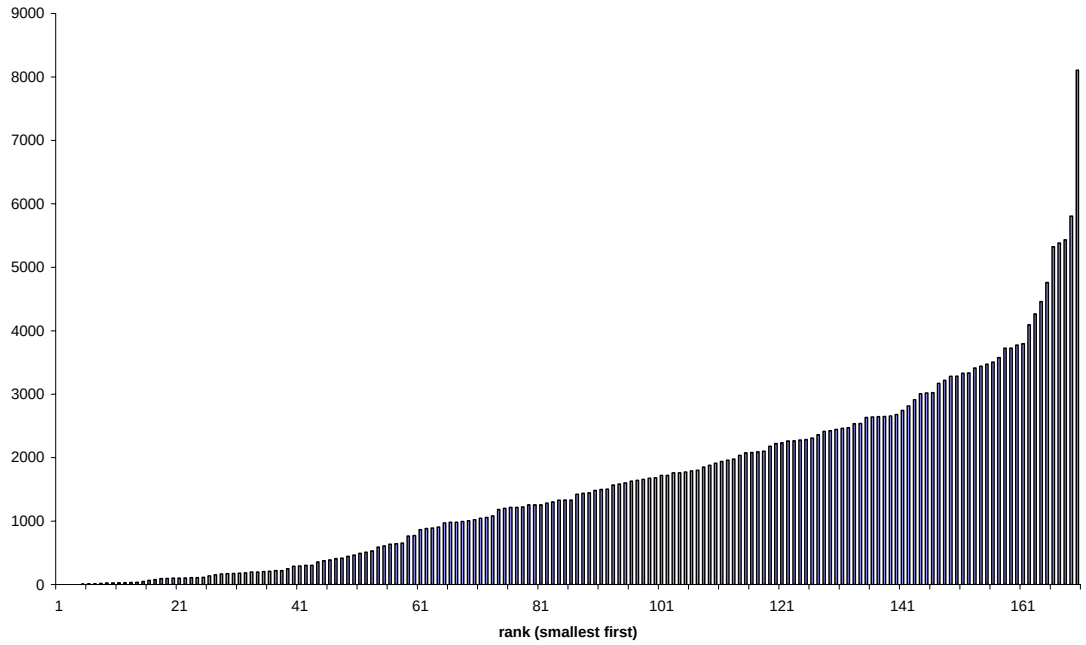
Postgraduate taught students

52. In general, postgraduate taught students are less concentrated, although the Open University educates more than twice as many as any other UK institution:

[31] Calculated on the basis that all FT students are equivalent to 1 FTE and all PT students 0.5 FTE

[32] Re-analysis of data tabulated in Students in Higher Education Institutions 2002-3

Figure 20: Number of postgraduate taught students 2002-3 (UK HEIs- assumed FTE)[33]



Source: HESA student record[34]

53. The larger, English post-1992 institutions are amongst the largest providers of postgraduate taught courses in the UK. Of the ten largest providers. Warwick and City universities are smaller institutions with a high concentration of taught postgraduate students.

[33] Assumed FTE calculated on the same basis as table 19. This may be misleading in the case of the Open University the FTE value of whose part-time students is highly variable. The OU on this calculation has over 2,000 more postgraduate taught students than the next institution (Leeds)

[34] Re-analysis of data tabulated in Students in Higher Education Institutions 2002-3

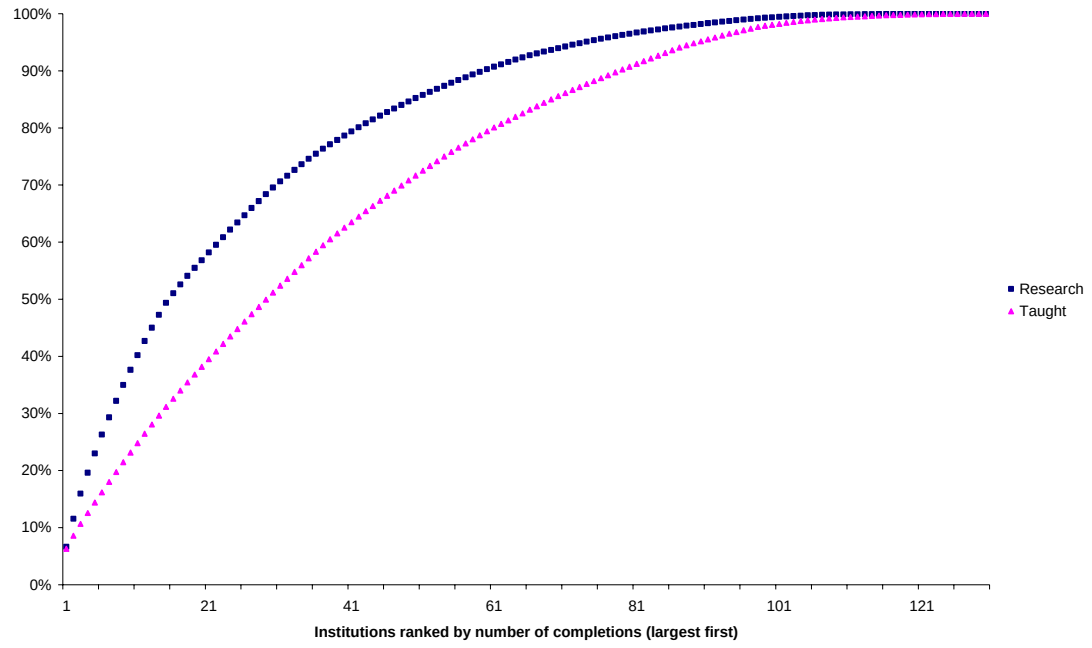
Table 21: 10 institutions with the most postgraduate taught students 2002-3

	Assumed FTE[35]	Full-time	Part-time
Open University	8108	0	16215
Leeds	5808	4360	2895
Westminster	5435	2905	5060
Birmingham	5383	3345	4075
City	5325	2850	4950
Strathclyde	4760	2155	5210
Warwick	4460	2145	4630
London Metropolitan	4265	2330	3870
Manchester	4095	2000	4190
Metropolitan Manchester (Victoria)	3798	2390	2815

Source: HESA student record[36]

54. Figure 22 below demonstrates that postgraduate research students are more heavily concentrated into fewer institutions than postgraduate taught students.

Table 22: Cumulative percentage of research and taught postgraduates completing courses in English Higher Education Institutions



Home and EC students HEFCE HESES 2003 (data relates to academic year 2003-4)

[35] Calculated on the basis that all FT students are equivalent to 1 FTE and all PT students 0.5 FTE

[36] Re-analysis of data tabulated in Students in Higher Education Institutions 2002-3

Importance of overseas students to individual institutions

55. Table 23 lists the ten institutions in which overseas postgraduates represent the highest proportion of the overall student body. They also show the proportion of total revenue accounted for by **all** overseas students (it is not currently possible to disaggregate overseas postgraduate fee income from other overseas student fees) which offers an alternative measure of the importance of overseas students to the institution. It is worth noting that many of these institutions have immensely strong reputations. The table does not provide an indication of the institutions most vulnerable to any future downturn in overseas recruitment because those with high numbers of overseas postgraduates are often extremely desirable places to study and are unlikely to be the first to be affected in such a downturn.

Table 23: 10 Institutions at which overseas postgraduates represent the **highest** proportion of the total student population (FE, UG, PG) in 2002-3 (Institutions with over 4000 students only)

	Overseas PG as per cent of student body	**All overseas student fees as per cent of revenue**
London School of Economics	42.2	33.6
Cranfield	31.9	3.5
Essex	22.6	17.2
UMIST	18.3	11.6
Surrey	16.9	10.7
Oxford	16.1	4.5
Cambridge	15.4	5.4
Imperial	14.7	6.7
Institute of Education	13.7	3.6
UCL	13.6	7.1
England	**6.2**	**7.5**

Source: HESA student record[37]

Which institutions' graduates are most likely to proceed to postgraduate study?

56. First degree graduates from 'old' universities (defined here as those funded before 1992 by the Universities Funding Council or UFC) are more likely to progress directly to postgraduate study - especially research study. The table below gives the percentage of graduates embarking on taught postgraduate study within six months of graduation in the ten institutions whose graduates have the greatest likelihood of doing so.

[37] Re-analysis of data tabulated in Students in Higher Education Institutions 2002-3

Table 24: 10 HEIs with the highest percentage of first degree graduates progressing to taught postgraduate study within 6 months (HEIs with 50+ PGT destinations only)

SOAS	26.4
Royal Holloway	19.8
Essex	18.3
LSE	17.0
Teeside	14.9
Kent	14.3
QMW	14.3
Lancaster	14.1
UCL	13.6
Durham	12.6
England mean	7.9
Ex-UFC mean	10.1
Non ex-UFC mean	6.1

Source: HESA student record[38]

57. When this analysis is repeated for postgraduate research destinations it indicates greater variation between the institutions most likely to produce PGR entrants and the national average. A graduate from the University of Cambridge is six times more likely to proceed directly to a research degree programme than the average graduate of an English HEI.

[38] Re-analysis of data tabulated in Students in Higher Education Institutions 2002-3

Table 25: 10 HEIs with the highest percentage of first degree graduates progressing to research postgraduate study within 6 months. (HEIs with 30+ PGR destinations only)

Cambridge	13.9
Imperial	11.0
Oxford	10.1
York	7.9
UMIST	7.3
Bath	6.6
Birmingham	6.0
Surrey	5.5
UCL	5.3
Newcastle	5.0
England mean	2.3
Ex-UFC mean	4.4
Non ex-UFC mean	0.6

Source: Reanalysis of data presented in HESA publication[39]

58. These figures indicate the extent of the differences between institutions but they do not tell us very much about the differences between the graduates of those institutions or the content of the first degree courses they have studied for two reasons:

- They do not allow for differences in the financial resources available to students at different universities which is widely believed to affect the willingness and ability of students to finance postgraduate study. If the graduates of university X tend to be very wealthy and the graduates of institution Y impoverished and indebted this is likely to have an influence upon the propensity of each group to undertake further study.

- They do not allow for the subjects studied at different institutions. Where institutions specialise in one or more groups of subjects, the availability of funding for further study in those subjects and the extent to which taught postgraduate qualifications are as seen as a normal precursor to research study in those subjects will influence these figures. This may explain why a number of institutions with strong reputations in social science (LSE, SOAS, Essex) appear to be producing graduates with a strong tendency towards taught (rather than research) postgraduate study.

[39] First Destinations of students leaving higher education institutions 2001-2

The regional dimension: postgraduate study and employment across the UK

Retention of postgraduate qualifiers within the territories of the UK

59. Scotland and Northern Ireland appear to retain a far higher proportion of the postgraduate qualifiers emerging from their HEIs than do Wales or the English regions.

Table 26: percentage of postgraduate qualifiers in employment who are employed in their territory of study 6 months after graduation ('stayers') and those employed elsewhere ('leavers')

	stayers	**leavers**
English regions (mean)[40]	55	45
Northern Ireland	82	18
Scotland	81	19
Wales	63	17
UK (mean)[41]	59	41

Source: HESA Student Record, Destinations of Leavers from HE 2002/03[42]

60. As shown in table 27 below, Scotland, Wales and Northern Ireland also 'import' smaller numbers of postgraduate qualifiers from institutions based elsewhere in the UK. This almost certainly reflects high rates of mobility between English regions.

Table 27: postgraduate qualifiers studying elsewhere in the UK employed in a territory six months after graduation expressed as a percentage of employed PG qualifiers produced in the territory ('imports')

	imports
English regions (mean)[43]	33
Northern Ireland	14
Scotland	14
Wales	17
UK (mean)[44]	30

Source: HESA Student Record, Destinations of Leavers from HE 2002/03[45]

[40] Excludes those studying in one English region and working in another

[41] See note 40

[42] Re-analysis of data commissioned by HEPI from HESA from the 2002-3 DLHE

[43] See note 40

[44] See note 40

[45] Re-analysis of data commissioned by HEPI from HESA from the 2002-3 DLHE

61. Scotland and Northern Ireland have low levels of mobility in both directions. This suggests both that Scottish and Northern Irish employers of postgraduates are highly dependent upon qualifiers produced by local institutions and that those qualifiers have a strong tendency to work locally rather than moving to other parts of the UK for employment. In Wales there is more mobility, but worryingly it is mostly in one direction: the number of postgraduate qualifiers leaving Wales for employment (37per cent) is more than twice as great as the number entering the country. This suggests that, in contrast to Scotland and Northern Ireland, Wales may need to create more postgraduate level jobs in order to benefit fully from current levels of postgraduate provision.

Retention of postgraduate qualifiers within the English regions

62. When the analysis is repeated for the individual English regions it reveals that no English region is as successful as Scotland and Northern Ireland in retaining its postgraduates.

Table 28: Postgraduate study and employment in the English regions: stayers, leavers and imports

	stayers	**leavers**	**imports**
North east	68	32	21
North west	67	33	27
London	59	41	30
Yorkshire and Humberside	59	41	22
South west	57	43	42
East	50	50	55
East midlands	47	53	37
South east	46	54	36
West midlands	45	55	35
English regions (mean)	55	45	33

Source: HESA Student Record, Destinations of Leavers from HE 2002/03[46]

63. Allowing for higher levels of movement between English regions, however, the north east and north west have a similar pattern to Scotland and Northern Ireland, being highly dependent upon local HEIs for their postgraduate labour and successful in retaining a high proportion of them. It is in these regions that the case for investing monies earmarked for regional development in postgraduate provision is strongest.

64. Conversely, the East, East midlands, South east and West midlands are characterised by high mobility in both directions. They are not particularly successful at

[46] Re-analysis of data commissioned by HEPI from HESA from the 2002-3 DLHE

retaining postgraduates studying in the region, nor are they very dependent upon local institutions to supply postgraduate labour. For these regions, investment of resources earmarked for regional development in postgraduate provision would represent poor value for money.

Section 5. Costs and benefits

This Section outlines briefly the ways in which the costs of postgraduate provision are met and the economic benefits to those who undertake it. It shows that postgraduate qualifiers tend to earn more than first degree qualifiers and that postgraduate study is strongly associated with professional employment.

Taught postgraduate study

65. There are two principal means by which UK HEIs generate revenue from teaching students:

- Grant from the relevant funding council the level of which is linked to student numbers.

- Fee income paid either by the student or a third party (often another government source such as the UK research councils).

Funding council subsidy

66. In England, postgraduate student numbers, like undergraduate numbers, influence the grant received by HEIs from the Higher Education Funding Council for England (HEFCE). The funding formula is complex, and there are no fixed rates for different types of student. In crude terms, however, institutions receive less money for postgraduates than for comparable undergraduates and are expected to make good the shortfall by obtaining fees from students or their sponsors. The *actual* level of fees obtained does not affect grant levels; so institutions have a real interest in raising as much money through fees as possible

Fee income

67. Fee levels for most courses are not regulated: institutions are free to charge what the market will bear (there is one major exception: where universities are providing training for the major public sector professions there is usually an agreed price).
Fees for the great majority of taught postgraduate students are met either from private sources (usually the student or his or her family or employer) or from sponsors within the wider public sector (of which the UK research councils are the most prominent).

Table 29: Source of fee for Home and EU domiciled Taught PG students in English institutions (non-dormant students)

Funding source	percentage
Institutional waiver	2.5
Public	34.8
Overseas	0.9
Private	56.5
Other	2.0
Not known	3.3

Source: HEFCE/HESES

68. Separate arrangements exist in Scotland, Wales and Northern Ireland and for planned recruitment to teacher training courses funded by the Teacher Training Agency.

69. In 2003, HEFCE undertook a survey of the fees charged by institutions. The figures below exclude students who are not fundable by HEFCE, such as overseas students and those for whom the institution receives funding beyond the fee level from EC public bodies (including UK government its agencies, EU agencies and governments of member states).

Table 30: Actual fee levels for taught postgraduate students (2002-2)

Subject area	Mean fee per FTE
Allied to medicine	3008
Business	6242
Combined	3074
Creative arts	3236
Education	2526
Humanities	3686
IT	3777
Laboratory based science	4302
Languages	2694
Law	4602
Medicine	4528
Mean	4271

Source: Survey of fees for postgraduate taught and part-time undergraduate students (HEFCE 2003)[47]

[47] available at http://www.hefce.ac.uk/learning/funding/fundmethod/survey.doc

Costs of provision

70. Remarkably little is known about the actual costs of taught postgraduate provision. In England, the funding provided per student is dependent upon the level of funding available and the number of students. This is worth bearing in mind: funding levels are not related to the costs of provision and institutions set fee levels with an eye on the market rather than cost - and indeed, it is doubtful whether they have a clear idea of the costs of delivering each of their courses.

71. It is believed that non-publicly funded teaching (undergraduate and postgraduate) is in surplus in UK universities. Publicly funded teaching is believed to break even whereas very considerable losses are made on research. Informal benchmarking data produced by the transparency review[48] indicated a surplus of 30per cent on non-publicly funded teaching (NPFT) a finding which - in the light of deficits elsewhere - has focussed attention upon the potential of NPFT in general, and overseas student fees in particular, to enable universities to finance deficits in other activities.

Maintenance costs

72. The British Council advises overseas students that it costs £6,500 to live in most locations in the UK and up to £9,500 in London and the south east.

Research degrees

73. The HEFCE research funding method means that research students in top rated research departments attract more funding into their institutions than those in lower rated departments. In consequence the economics of research degree provision vary between departments as well as between institutions. This goes some way to explain the concentration of research students in a relatively small number of institutions.

74. HEFCE pays a supervision payment for first year full-time (and first and second year pat time) research students in departments rated 3a and above in the latest Research Assessment Exercise. In 2004-5, the rate for laboratory based subjects[49] was £2,761, for part laboratory subjects £3,589 and for library based subjects £4,418.

75. In addition, second and third year research students (or part-time equivalents) increase the core research grant of institutions. Each eligible FTE research student is counted as equivalent to a little more than a quarter of an FTE research active staff member. In the most favourable case (a 5* rated department in professions allied to medicine) this makes the student worth just over £12,000 in 2004-5. Other rates are

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[48] JM Consulting *Study of Science Research Infrastructure*. Available at http://www.ost.gov.uk/research/funding/underinvest/

[49] These are widely used but not exact descriptions of the subject based cost bands used by HEFCE. Pure mathematics, for example falls in the highest cost band despite not being a laboratory based subject.

much lower: in a 4 rated department of history, for example, a full-time research student would add less than £2,000 to the institution's grant. Departments rated below 4 do not receive research funding and so do not benefit in this way.

76. Institutions also charge fees for postgraduate research students. The UK government, through the research councils, is the most important sponsor of research students' fees. Research councils and other sponsors also sometimes contribute towards the training costs incurred by institutions through grants designed to enable institutions to provide specific skills training for the students whose fee and maintenance costs they support.

77. Significant numbers of research students have their fees waived by their institution. Nevertheless, a large majority have their fees met from public or private sources

Table 31: Source of fee for Home and EU Postgraduate research students (non-dormant students)

Funding source	**percentage**
Institutional waiver	15.9
Public	31.1
Overseas	1.9
Private	42.3
Other	5.4
Not known	3.4

Source: HEFCE/HESES

Costs of provision

78. As with taught degrees, at present very little is known about the costs of postgraduate research degree provision. HEFCE is currently funding a project designed to establish these costs.

79. If that study attributes a share of the estates cost and staff costs to postgraduate research students, it is probable that the existing funding streams available to institutions to support postgraduate research students will be shown to be inadequate[50]. Unless funders respond by increasing the level of resource available to institutions (through

[50] The costing uses the TRAC model which attributes indirect costs to individuals (staff or in this case research students). An assumption has to be made about the contribution made by each PGR student to the consumption of consumables and infrastructure. In practice, this is a highly subjective process: it is extremely difficult to disentangle the costs of supervising research supervision from conducting research because, especially in the sciences, the two activities are often indistinguishable. This process will also ignore the contribution made by postgraduate research students to the research activities of academic staff, who, in addition to their intrinsic value, attract revenue to the institution.

increased funding council subsidy and/or higher fees for research council funded students) this is likely to reduce the willingness of universities to make provision for research students. It is also worth noting that the UK government's recent science strategy represents a significant move towards establishing a four year period of study as the norm for UK government funded students - a development which is likely to increase costs – or perceptions of costs – still further.

Individual returns

80. Studies are generally agreed that in the UK holders of postgraduate qualifications tend to earn more than holders of first degrees. A recent study found that male holders of postgraduate qualifications typically earned 4.7 per cent more than holders of undergraduate qualifications. The premium enjoyed by female postgraduate qualifiers was 10.4 per cent[51].

81. Students achieving postgraduate qualifications in 2002-3 enjoyed an average premium of 28 per cent after six months compared to first degree qualifiers, although this may reflect the professional orientation of postgraduate courses which is likely to mean that fewer postgraduate qualifiers spend time in casual or low status employment immediately after graduating.

Table 32: the postgraduate premium 2002-3

	Mean salary of those in full-time employment six months after graduation	**Postgraduate premium (per cent)**
Postgraduate qualifiers	20 951	0
All first degrees	16 393	28
First class honours	17 756	18
Upper second	15 981	31
Lower second	15 219	38
Third class honours	15 180	38
Unclassified[52]	23 660	-11

Source: HESA Student Record, Destinations of Leavers from HE 2002/03[53]

82. It is also relevant that postgraduate qualifications are strongly associated with entry into professional occupations - even though the proportion of postgraduates studying for specifically professional qualifications is tiny (3 per cent of 2002-3 entrants). In 2001-02 25 per cent of first degree graduates in employment six months after graduation were

[51] Conlon and Chevalier 'Rates of Return to Qualifications: A summary of recent evidence' (CIHE 2002)

[52] Figures reflect high salaries earned by holders of first degrees in veterinary science, medicine and dentistry the majority of which are unclassified

[53] Re-analysis of data commissioned by HEPI from HESA from the 2002-3 DLHE

classified as being in professional occupations. The equivalent figure for postgraduates was 76 per cent[54] . These figures are affected by PGCEs which are in many ways untypical of postgraduate qualifications. However, even if undergraduate and postgraduate teacher training are removed from the analysis, the contrast between postgraduate and first degree qualifiers is still striking[i].

Table 33: Professional employment: postgraduate and first degree qualifiers obtaining employment six months after graduation 2001-2

	All occupations	**Professional occupations (percentage of all occupations in brackets)**
Postgraduate	28755	21845 (76)
First degree	115410	28685 (25)
Postgraduate (excl teacher training)	13410	6785 (51)
First degree (excl teacher training)	108560	22095 (20)

HESA published volume: First destinations of students leaving Higher Education Institutions 2001-2

[54] These figures are based upon standard occupational classifications from which many newer professions are excluded. The requirement for entrants to hold degrees is one of the defining characteristics of these professions so these figures are indicative of the extent to which traditional graduate entry professions exhibit a preference for those with postgraduate qualifications.

Section 6. Quality assurance and public information

This section discusses the role of the national quality assurance processes and qualification nomenclature in providing information to prospective students and sponsors as well as employers on the nature and quality of postgraduate courses. It concludes that to maintain confidence in the quality of the UK's provision will require a system for classifying qualifications and courses which is credible, meaningful and comprehensible. This suggests a reformed and standardised nomenclature, for taught masters courses.

83. Given the increasing importance of postgraduate provision for the UK higher education sector, and in particular the increasing importance of continuing to attract overseas students, it is essential to continue to ensure that the quality of what is provided is as good as it could be. If sustainable growth is to be delivered, it will be necessary to reassure prospective students of the quality of UK postgraduate education. At the same time, and in order to achieve this, it will be necessary to develop systems which provide appropriate information to a very varied group of prospective students with divergent aspirations and needs.

84. This requires two things: quality assurance (one of whose functions is to offer reassurance that any courses meet a standard which is considered acceptable within the UK sector) and clear information enabling students to differentiate between courses offered by UK HEIs. Good credible information is a vital tool in competing for international students who will be more willing to come to a country which enables them to understand what they will get from their chosen course than to one which does not. In many cases the information which prospective students seek will relate to the focus and function of the course (whether for example it is primarily a preparation for research or for professional life; or whether it is suitable for those without prior experience of the subject).

85. This kind of information is usually available in course descriptions but there is scope to provide it in a more standardised form to help students ascertain the purposes of courses and make comparisons between them. Beyond that what international students, in particular, will seek is a sense of the prestige attached to institutions and departments - in essence an answer to the question 'is this considered to be a good university'. It is, and will remain, extremely problematic for public or sector bodies to provide this kind of information (even if they could settle on a means of collecting it) because the esteem in which institutions are held relates to history, prejudice and ideology as well as to performance. This may in the future place the UK at a competitive disadvantage compared to countries with more centralised HE systems which have less difficulty either in presenting their courses as being of equal quality or in providing official rankings.

86. Perceptions of quality are important, and the UK will need to watch very carefully to ensure that developments in the EU do not leave us at a disadvantage. On the one hand, one-year masters degrees are seen by many as being a unique selling point of UK higher education, and they may indeed be so. However, as two year masters courses

increasingly become the norm in other EU countries, it will be all the more important that the UK's one-year masters are not seen as an inferior product.

87. Given that different segments of the market are likely to demand different types of course there is a powerful momentum towards diversification (and indeed the menu of qualifications on offer is already long). One of the triumphs of the UK higher education system has been in the way it has adapted to meet this diversity of demand. On the other hand maintaining perceptions of quality requires a system for classifying qualifications and/or courses which is credible, meaningful (which means that it does not group very different qualifications together under a broad heading) and comprehensible (which means that it is straightforward for prospective students to understand the significance of the qualification).

88. Seen in this light, the two postgraduate qualification levels in the QAA code are too few to provide effective public information. This may not be such a bad thing. Subdividing taught postgraduate courses on the basis of level of study will require value judgements to be made about the merits of courses which aim to do very different things; whilst doing so on the basis of course length may lead only to 'module inflation'; and policing any such regime will inevitably divert energy from provision to games-playing. Arguably, the proper function of the Quality Assurance system is to offer reassurance that courses do what they claim to do, and not to make judgements about whether the stated aims or length of one course places it on a different plane from another. It follows that it is not to the categorisation of qualification levels but to a reformed and standardised nomenclature that the UK should look to provide more effective information about the nature of its postgraduate programmes.

89. At present, however, nomenclature can be inconsistent:. To give one example MA and MSc in most English universities indicates a taught postgraduate degree examined primarily on the basis of taught components; the University of Cambridge however, describes its MSc as a research degree 'requiring six full-time (or ten part-time) terms of research' and its MA, famously, is not an academic qualification at all. Such idiosyncrasies are not exclusive to ancient universities: the more recent practice of identifying postgraduate qualifications with a substantial focus upon professional practice with a suffix indicating the field of study (for example MEd) whilst potentially helpful in identifying programmes with a professional orientation has greatly increased the number of qualifications offered in many institutions; and the way in which such qualifications differ in form and content from other programmes requiring a similar period of study is not consistent.

90. Level of study is not the only basis upon which postgraduate education can be characterised and categorised. Masters courses are particularly diverse: some, for example, are designed to provide a grounding in professional practice whilst others provide training appropriate to those seeking a research career; some aim to broaden and deepen the knowledge and aptitudes of students already familiar with the subjects whilst others are designed to cater for those with little or no specialist knowledge. It may well be that a system which reflects a common categorisation of masters level courses by function (perhaps 'conversion masters' 'professional masters' research training masters' 'research masters') will offer more to prospective students than one based on

qualification levels. It shifts attention from the narrow question of standards - whether qualifications are ‘properly postgraduate’ - to what they actually signify.

91. An analysis based upon function rather than level does not just suggest possible reforms to the nomenclature of postgraduate qualifications. It also prompts sociological, historical and policy questions which merit further investigation: about the roles performed by postgraduate education in contemporary Britain; about how the postgraduate sector acquired these roles; about how well are they are delivered at present and whether they are all best delivered at postgraduate level or badged as postgraduate.

Section 7. Future demand

This Section examines the prospects for further growth in the UK postgraduate sector and considers the way in which changing patterns of demand may affect the nature of provision. It does not offer demand projections but, on the basis of the available evidence, it examines the prospects for further growth in demand from UK and overseas students and the impact of further growth upon the Higher Education sector and the UK labour market.

92. Previous Sections have shown how rapidly postgraduate demand has risen in the past few years, driven primarily by demand for masters level education from both home and overseas students, and also for postgraduate research study from overseas students. This section discusses the factors that may influence demand in the future, and considers whether demand is likely to continue to grow.

UK domiciled taught postgraduate students

93. HEPI has previously calculated that, based upon the growth in undergraduate demand expected by 2010 and allowing for additional demand from the ten EU accession countries, an increase of 40 000 - 50 000 FTE in demand for postgraduate education in England is to be expected (this estimate refers to numbers of enrolled students not entrants; in 2002-3 HESA counted 497 500 postgraduate enrolments in the UK and 416 745 in England). This estimate assumes that the propensity of graduates to proceed to postgraduate education will remain unchanged.

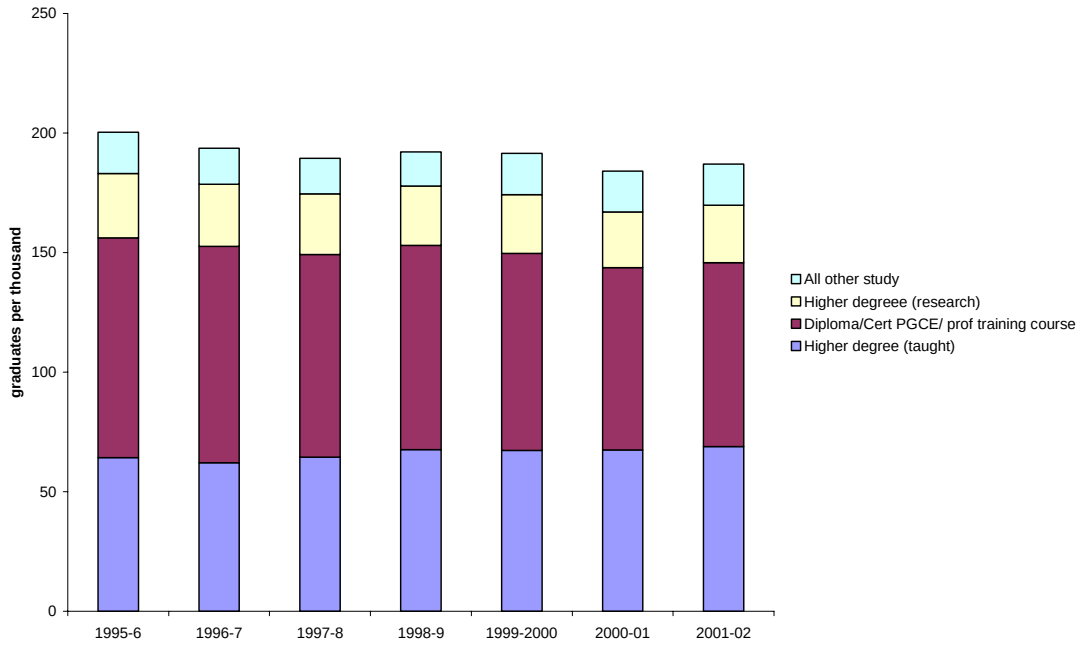
94. Recent press reports[55] have suggested that some universities are presuming that, as graduate numbers increase, an increasing proportion of graduates will undertake postgraduate study as a means of differentiating themselves from their peers - the 'differentiation hypothesis' - and that as a result the propensity of graduates to proceed to postgraduate study will increase. If so, the expansion in postgraduate study could be expected to proceed at a faster rate than the expansion of honours degrees.

95. There is conflicting evidence as to whether the proportion of UK first degree graduates proceeding immediately to postgraduate study is currently on the increase. The proportion of UK domiciled first degree graduates proceeding to postgraduate study as a first destination has declined[56].

[55] For example *Boom time* in The Guardian June 15 2004 and *The new old universities* in The Independent June 3 2004

[56] It is probable that the decline in certificates and diplomas would be more marked were PGCEs shown separately.

Figure 34: UK domiciled First degree graduates proceeding immediately to further study

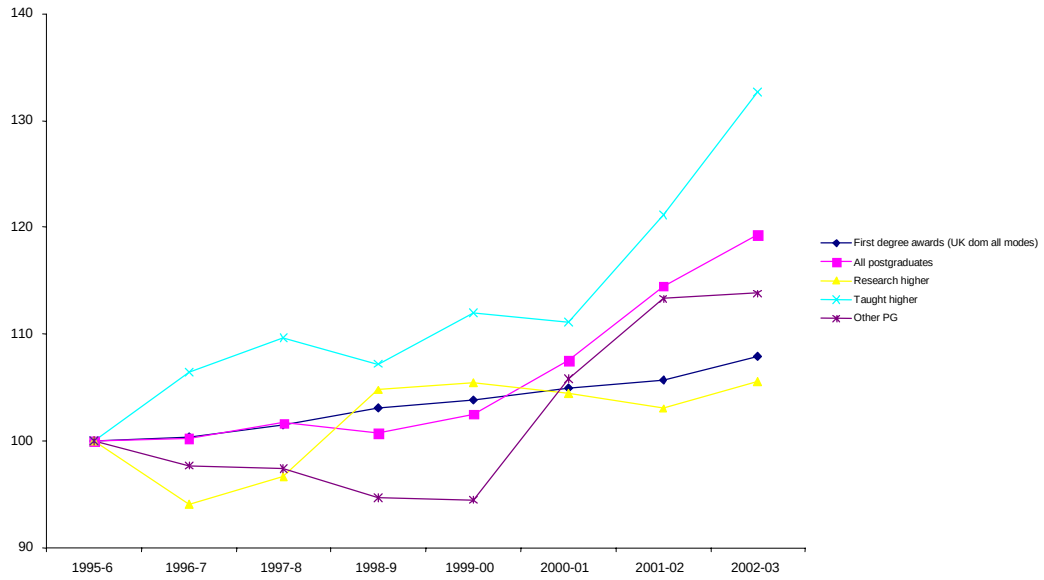


Source: Reanalysis of data presented in HESA publication[57]

96. Paradoxically, full-time entrants to postgraduate programmes appear to be growing faster than the award of first degrees. Given that the popularity of postgraduate study as a first destination for graduates appears not to be growing (see previous chart) this suggests an increase in the numbers opting for postgraduate study at some point after gaining their first degrees. If this is the case it may be some time before the full impact of increases in the undergraduate population upon the postgraduate population is felt.

[57] First Destinations of students leaving higher education institutions 1995-6 to 2001-2

Figure 35: Trends in UK domiciled first year full-time postgraduates and first degrees awarded (UK HEIs)



source: HESA student record[58]

97. Taken together, these figures do not prove the differentiation hypothesis either right or wrong, but they ought to remind us that it is far from self-evident that numbers of UK domiciled postgraduates will be able to grow faster than the pool of first degree holders from which most are drawn and it is far from clear either that this is actually happening. It is certainly possible that the desire to differentiate themselves from other graduates will encourage some to pursue postgraduate education but it is equally plausible that it is the scarcity of postgraduate qualifications which makes them attractive (in which case growth should be self-limiting).

Effects upon the labour market

98. An increase in the number of people with postgraduate qualifications seeking employment in the UK is likely to have an effect upon the labour market. Unsurprisingly, the available evidence suggests that this impact will be felt most strongly in professional occupations. As noted in Section 5, in 2001-02 76 per cent of postgraduate leavers were in professional occupations compared to 25 per cent of undergraduate leavers (see paragraph 82). This difference is, to some extent, unremarkable - the definition of professional occupations stipulates that they require a graduate or postgraduate qualification and it is reasonable to expect that many require the latter. It does however serve as a reminder that in the UK, the most important role of postgraduate study is to prepare graduates for the professions (broadly defined) and to provide them with the credentials to enable them to enter those professions; and perhaps more importantly, it

[58] Re-analysis of data tabulated in Students in Higher Education Institutions (HESA 1995-6 to 2002-3)

demonstrates that, whereas graduates tend to be in occupations where they face competition from non-graduates, postgraduate qualifiers do not.

99. In addition to traditional graduate and postgraduate professions, other occupations, particularly those which are in the process of becoming graduate occupations, will look increasingly to the universities to provide accredited training for their members. It is therefore to be expected that some existing training provision will move into the postgraduate HE sector. Less formally, a postgraduate qualification may become the norm in occupations where this has not previously been the case even where no formal professional accreditation is involved (eg. social research). Where professions recognise or require postgraduate qualifications, it is reasonable to suppose that demand for such qualifications will increase.

100. None of this means that a postgraduate qualification is a passport to a professional career[59]. It seems probable that occupations and employers will be increasingly divergent in their approach to holders of postgraduate qualifications. There is already some evidence that the expansion of *undergraduate* education has led to a divergence between the attitudes of employers who regard degrees as essential and those which regard them as markers of potential. Purcell, Morley and Rowley[60] identify the former with "specialist professional and technical occupations" and the latter with "more general management and service occupations". They have found that the latter group are beginning to move away from qualification requirements. In the light of the fact that taught postgraduate study is an unreliable indicator of *academic* potential, and given that for many postgraduate study will defer experience of the disciplines of professional employment, it seems probable that postgraduates will find it even more important than undergraduates to demonstrate that the specific content of their courses has enhanced their employability.

101. As has been shown above, holders of taught postgraduate degrees cannot be presumed to be an elite among graduates (see figure 8), and indeed, employers have very good means to differentiate between graduates on the basis of academic achievement or general ability *without* reference to postgraduate qualifications. They have access to candidates' A level grades, their degree class, subject and institution. All of these factors can and do influence employer choice. In comparison to the information available to recruiters concerning other relevant aptitudes, this information is detailed, well-validated and easy to obtain. In the foreseeable future there may be yet more detailed information about candidates' academic performance at all levels, enabling employers to make fine distinctions between members of what might otherwise be an unmanageably large pool of graduates. For this reason, it is unlikely that employers would wish to narrow the pool of qualified labour by insisting on further study except where that study is directly relevant to their needs - especially as holders of postgraduate qualifications are much more scarce in all age bands than holders of HE qualifications

[59] If the supply of postgraduate qualifiers increases faster than the demand for them, it is entirely possible that a postgraduate qualification will become essential for entry into some occupations whilst at the same time providing less of a guarantee of entry into the same occupations - what might be termed 'more necessary but less sufficient'.

[60] Purcell, Morley and Rowley Employers in the new graduate labour market available at www.cihe-uk.co.uk

(see table 36 below). Even where peer esteem rather than economic advantage is the primary motivation for postgraduate study, it is likely that this will similarly be affected by the lack of any clear reason to assume that holders of taught postgraduate qualifications are more academically able than other graduates.

Table 36: percentage of the UK labour force with HE qualifications in 2002

Age	Percentage with HE qualification	Percentage with postgraduate qualification
16-19	1	0
20-24	23	2
24-29	33	7
30-34	26	7
35-39	26	7
40-44	25	6
45-49	24	6
50-54	23	6
55-59	23	5

Source HE Management Statistics - Sector Level 2001-02 HESA Tables I1 and I2

102. One further possible driver for increases in taught postgraduate qualifications will be the extent to which they are used as a preparation for doctoral level study[61]. This model has been promoted by influential funders including several of the UK research councils. Where students who previously would have proceeded directly from undergraduate study to research degree programmes take taught postgraduate qualifications as an intermediate step, this represents an increase in the amount of postgraduate study (although the ultimate attainment of those students as measured by qualification will not change).

Effect of student debt

103. It is too early to judge the impact of increased levels of student debt, and the new fee arrangements for undergraduate courses, upon the demand for postgraduate study. It is however worth noting that a large proportion of postgraduates are self-funding and that prospects for growth amongst home students depend to some extent upon this number increasing. Undergraduate and postgraduate study differ in two important ways: first, there are viable alternatives to postgraduate study for most prospective postgraduate students (the exceptions being those who are only prepared to consider occupations which have become postgraduate only); second, undergraduates have guaranteed access to credit on favourable terms whereas postgraduates do not.

[61] Research methods training can be found as an element in undergraduate, taught postgraduate and research degree programmes - which hints at the difficulty of classifying qualifications on the basis of level.

104. None of this means that increased levels of indebtedness are necessarily a threat to postgraduate demand. The relationship between levels of indebtedness and postgraduate demand is not known; it is also not known whether young graduates with high levels of debt (the group most likely to be deterred by increasing debt levels) are currently progressing to postgraduate study in substantial numbers; and it may be that borrowing itself reduces aversity to debt - in which case the assumption that those who have borrowed once to finance study will be reluctant to do so again may not be accurate.

Domestic demand

105. There are other downside risks to continued growth in domestic demand. Just as it is possible that graduates will feel obliged to consider postgraduate study in order to differentiate themselves from other graduates, it is equally plausible that what might be termed the 'new graduates' (those graduating now who would not have become graduates in an earlier period) will not have the same propensity to proceed to further study as have graduates in the past. In short, it is easy to identify mechanisms by which the growth in the undergraduate population and changes in student finance arrangements *could* either increase or decrease the proportion of graduates proceeding to postgraduate study but there is, at present, insufficient evidence to establish what the net effect of all these factors is likely to be.

EU demand

106. EU postgraduates represent 8 per cent of the 2002-3 total - a proportion which has not changed greatly since 1995-6. As a group, their importance to UK institutions is much less than that of more numerous - and more lucrative - students from outside the EU. Numbers are increasing in line with the overall postgraduate population but, whilst this offers cultural benefits both to the UK and to the students' countries of origin, it is not critical to UK universities in terms of revenue generation - indeed, EU students carry many of the costs of overseas students (see paragraphs 120-23 below) but do not pay premium fees.

107. HEPI has previously reported[62] upon the impact of the accession of Poland, Hungary, the Czech Republic, Slovakia, Slovenia, Malta, Cyprus, Latvia, Estonia and Lithuania to the EU in 2004. Prior to the accession approximately 2 500 students from these countries were paying full international fees as non EU nationals – these students and their successors will not pay international fees and will (subject to permanent residency) be recorded as EU domiciled students from 2004-5 onwards. HEPI has also suggested that the accession will increase demand for postgraduate places in UK universities from the affected countries by up to a further 9 000.

108. For UK postgraduate providers, however, it will be important to remain abreast of moves towards the creation of a European Higher Education Area (sometimes referred to as the Bologna process). This will require a basis on which to establish the equivalence

[62] Aston, L *Projecting demand for UK Higher Education from the accession countries* available at www.hepi.ac.uk

of qualifications awarded in different European countries - possibly on the basis of a model reflecting years of study (as is customary in many European countries) rather than learning outcomes (as is customary in the UK). Particular issues arise for UK institutions if this process defines a two year masters cycle as a European norm (though this is far from certain to happen).

109. It should be stressed that there are no plans for harmonisation: indeed, the recently-signed EU constitution specifically rules out any move to require member states to offer a particular pattern of provision. What is more the Bologna process is not limited to the EU countries and should not be confused with the union itself. What is proposed is a framework for making comparisons between qualifications awarded in different European states which has significant implications for transnational employment and study: if a typical UK masters is defined as 'half' a postgraduate qualification it is likely to be of little value to students seeking employment or further study in the EU.

110. It is very difficult to predict whether a European Qualification Framework (or something similar) could have a significant impact upon the reputation enjoyed by UK qualifications outside Europe. This is the critical issue: students from the rest of the EU represent a small and static proportion of the UK postgraduate population. Therefore, unless they affect the consciousness of non-Europeans, developments in Europe will have an influence upon the pattern of provision postgraduate in the UK, but only an influence: they are unlikely to dictate the evolution of the postgraduate sector. The key point will be whether they influence the view taken of UK degrees in countries outside Europe: it is possible that a framework which implies that UK qualifications may be inferior to qualifications with similar nomenclature offered elsewhere in Europe may hurt us in this respect, but at present that does not seem likely.

Global demand

111. Recent research by the British Council[63] has sought to predict the future demand for UK Higher Education from outside the UK and to identify the factors influencing that demand. It estimates that demand will continue to rise steeply with taught postgraduate study increasing faster than other categories. The report predicts that growth across the major English speaking destination countries (MESDCs) will increase by an average of 6 per cent a year until 2020. In its base scenario - in which demand from other countries increases in line with projected growth in income, HE participation and demographic change, the UK achieves a compound growth rate of 4.7 per cent the differential being explained by the UK's current strength in slow growing countries. The compound growth rate is heavily influenced by the UK's ability to deliver the attributes of most importance to students (most notably a perception of high quality). Alternative scenarios are posited in which the UK is either highly successful or unsuccessful in this regard.

[63] *Vision 2020 Forecasting International Student Mobility* (British Council 200?)

112. The report also predicts that (under the base scenario) the percentage of postgraduates amongst international students in UK HE will increase from an already high figure of 47 per cent in 2003 to 57 per cent in 2020.

113. Continued growth in postgraduate numbers has the potential to change the balance of the sector - additional staff and facilities will be required in subjects which are particularly attractive to postgraduates, should postgraduate growth outpace undergraduate growth. Some growing pains are to be expected as services of particular importance to overseas students struggle to expand but, so long as overseas students are self-financing, it should be possible for most institutions to accommodate them without any long-term disruption to other activities.

114. The British Council report emphasises the importance of the perceived quality of education and of the value of the qualifications obtained in securing employment. Whilst these are related it is important to remember that the former will be affected by the quality of teaching and the non-academic provision made for the student (for example help in settling into the UK or teaching which shows an understanding of and willingness to build upon the prior knowledge acquired in the student's country of origin); the latter will depend upon what employers consider the qualifications obtained to indicate about the individual.

115. This distinction is potentially important. A student who is primarily concerned to have an enjoyable experience in a foreign country and to gain valuable knowledge of his or her subject and of another culture will make different choices to a student focussed upon employer perceptions of his or her institution (and country) of study. The former will be much more sensitive to what is actually provided, whereas the latter will consider lay perceptions of the reputation of each country or institution to be a very good indicator of the best place to study.

Exposure to fluctuation in demand from overseas students

116. It is prudent to assume that overseas student demand is less stable than demand from home students. The extent of growth in the market for international study is also harder to predict (subject as it is to local political, economic and social factors) as is the attractiveness of the UK (which is also subject to political factors). Overseas students' ability to differentiate between individual institutions within a national system will improve but it is hard to assess what effect this will have on individual institutions.

117. Institutions which became heavily dependent upon income from one or two countries could become vulnerable to fluctuations in demand. On the other hand attempting to spread risk by competing in a large number of markets is likely to involve additional costs such as marketing, support services, and training staff to understand the educational and cultural background of students. It is also worth remembering that this is happening at a time when variable fees and the status of volatile research funding as the fastest growing stream of income from UK government are likely to increase the financial risks facing UK HEIs. These developments will oblige departments and even institutions

to pool risks rather than leaving each department or faculty fully exposed to levels of volatility which should properly be managed at a higher level

118. In general, the most prestigious institutions have the highest proportions of postgraduate students and the highest proportion of overseas students (see table 23 above). This makes it impossible to make simple inferences about the degree of exposure to any downturn in overseas student recruitment: it is highly unlikely that the likes of Oxford, Cambridge and London Business School would be the first to be affected in any downturn and it would be naïve to suggest that their dependence upon often volatile sources of income which carry risks for other institutions - research funding and overseas students - is particularly risky for these fortunate institutions. For less well positioned institutions, however the potential volatility of overseas student numbers may be an issue if they become overly dependent upon overseas student income - especially if recruitment is concentrated in a small number of key countries.

119. Even if the British Council's long-term growth predictions are correct, therefore, it would be a surprise if growth were regular or uninterrupted. There is already some evidence that other English speaking countries are experiencing a fall-off in demand for 2004-5[64] and it has been reported that the number of students arriving in the UK on student visas fell in 2003, although it is unclear whether or to what extent prospective HE students have been affected. If overseas students are to become fundamental to the financial health of UK universities, the HE sector and the Government will need to ensure that the early warning signs of any fluctuations in demand are analysed and publicised as early as possible so that prompt action can be taken. This implies a mechanism for collating data on the experience of recruiters and information providers in the field, student enquiries and visa applications.

The international university

120. A large and rapidly growing literature exists on the teaching and support of international students[65] and the ways in which their presence demands a distinctive response from HEIs. This is likely to become an issue of increasing importance. Many overseas postgraduates will have no previous experience of education in the UK (or even in the west); and they will be sharing courses with students with several years experience of UK higher education. The challenge of educating both groups in a way which enables each to benefit from the presence of the other is an extraordinary one. It requires both an understanding of the students and the educational cultures from which they come and a willingness on the part of teachers to question their own assumptions - including some which may be written into the curriculum. It also requires the ability to demonstrate to home students that the international presence is an asset to their education and their

[64] See for example reports by Geoffrey Maslen in the South China Morning Post (4 September 2004) and Mary Beth Marklein in USA Today (8 September 2004)

[65] See for example Ward C *The impact of international students on domestic students and host institutions*

experience rather than a drag upon it[66]. For many overseas students, acquiring familiarity with another culture will be as important as acquiring education; and equipping them to make the most of this opportunity is also likely to become increasingly important to HE providers.

121. These issues represent a huge pedagogic, administrative, pastoral and cultural challenge for institutions and their staff (especially where international recruitment is not concentrated in small number of countries). This is a challenge that the leaders of taught masters programmes will, disproportionately, be required to confront. It is doubtful whether this challenge can be met by course directors, lecturers and liaison officers acting without significant support from institutions and consortia of institutions. Failure to do so will affect the experience of home and overseas students alike and in the longer term will impact the reputation of the institution.

122. Increasing capacity is likely to involve very considerable investment in specialist teaching and support services, teaching infrastructure and even student accommodation. Institutions are therefore likely to face a difficult choice: whether to minimise the need for investment - and their risks - by placing self-imposed limits upon their own expansion or to invest heavily in anticipation of large and sustained growth. Institutions which attempt to evade this choice by recruiting aggressively without upgrading both their facilities and their provision are unlikely to prosper in the longer term because of the impact that unmanaged expansion will have upon their reputation within the UK as well as overseas. They also risk damaging the reputation of the UK as a whole.

123. It is not yet clear whether prospective international students have the means to discriminate between national systems, institutions or courses on the basis of the specific measures taken to integrate them into the institution and the wider community. It is therefore very hard to predict the extent to which the performance of an individual institution or programme will impact the reputation of the UK as a place of study or whether the effects will tend to be confined to the institution.

Offshore provision

124. In addition to overseas students studying in the UK, large numbers receive their education through distance learning or through accredited or offshore programmes based in the student's country of origin[67]. The potential market for this kind of education is greater even than the market for education delivered in the UK. The British Council has predicted that demand for this type of higher education will outstrip onshore provision for international students sometime between 2005 and 2010 (these projections take no account of limitations in capacity in UK institutions which could hasten this development).

[66] Ward reports that there is some evidence that, left to themselves, levels of interaction between home and international students are low. This argues that strategic interventions are necessary to maximise the benefits of internationalisation.

[67] Australia counts these offshore students. The UK and other Anglophone countries currently do not.

Such projections are speculative because there is a lack of credible data about offshore and distance learning exports.

125. Offshore provision avoids some of the challenges (and opportunities) associated with the international university and can be delivered at a lower cost (the student's travel and maintenance costs will also be far lower). It does however pose formidable quality assurance problems[68]. UK institutions have a collective interest in maintaining the currency of their courses and their qualifications and this will require very active engagement with any collaborators in offshore provision.

[68] QAA reports on offshore provision are available at http://www.qaa.ac.uk/revreps/oseas/overseas.htm

Section 8: Conclusions

This section summarises some of the tentative conclusions suggested by the material presented in this study. It suggests that growth is likely to continue, but that growth in overseas student numbers in particular is likely to be uneven; that institutions would be unwise to rely on growth in income from overseas students to make a large contribution to their plans; that, other than in cases where postgraduate courses provide specific knowledge and skills, postgraduate study is unlikely to confer large benefits in the job market; and finally that there is a case for a modest reform of postgraduate course titles, to make them more informative about the nature of the course.

Will expansion continue?

126. It is most probable that growth will continue for some years to come, though not necessarily at an even pace. It would be surprising if sustained growth (seen not just in the UK but in other English speaking countries) could turn into a sustained decline in the space of a year or two, even if, as data from the immigration authorities suggest it might, 2003-4 does turn out to be a poor year. It seems clear that, at present, demand for Anglophone postgraduate education exceeds supply and that this is likely to continue to be the case for some time. In the longer term, however, it is not clear whether the benefits of study in the UK will be sufficiently profound to support indefinite expansion or whether providers located within large markets (especially China) will be the ultimate beneficiaries of expansion. It is also likely that overseas students and their sponsors will become better informed and more demanding, obliging institutions to invest heavily in order to retain their position.

Will growth in income from overseas postgraduates finance deficits in other activities?

127. There are good reasons to be cautious. The data on which surpluses in Non Publicly Funded Teaching were calculated were provisional and the apportionment of costs to categories of activity is approximate; relatively little is known about the costs associated with different types of NPFT and in particular whether postgraduate programmes run at a surplus; publicly funded activities tend to offer more stable funding than privately funded ones and the costs of wasted investments attendant upon risky activities need to be allowed for; overseas students will become better informed and more demanding and this may well drive increases in the costs of provision.

127. More fundamentally, growth in overseas student numbers is not guaranteed. It is not yet known whether the sudden and unpredicted fall of 14 per cent in the number of people arriving in the UK on student visas in 2003[69] will be reflected in HE enrolments for 2003-4. More fundamentally still, asking any one revenue stream to support the level of growth to which the UK sector has become accustomed is unrealistic. As shown in figure 17 above, even in a period of very strong growth between 1998-9 and 2002-3, overseas student fees amounted to only one eighth of total revenue growth.

[69] THES 1 October 2004.

128. UK higher education is accustomed to growth. It is hard to think of a sector which has grown so consistently since 1945. The natural tendency is to grow, and to look to growth to provide revenue for discretionary projects. If, as seems likely, UK HEIs identify overseas postgraduates as one of the most promising growth opportunities available to them, we can assume that they will place a very high priority upon securing their share of any growth. It is worth noting that intense competition for research funding – which has also increased dramatically over recent years – has resulted in UK HEIs running up very significant deficits on research. There is a very real risk that something similar will happen with postgraduate study unless levels of expenditure are set with reference to realistic prospects for growth.

129. None of this means that the postgraduate sector is in trouble. What it does mean is that a strategy of depending upon postgraduate expansion to support deficits on other activities cannot be assumed to be viable: if expansion is based upon sentiment rather than calculation, there are serious risks for the HE sector as a whole.

Will increasing postgraduate numbers transform the UK labour market?

130. It is likely that this will vary on an occupation by occupation basis. In some occupations postgraduate qualifications will become requirements (or will be strongly preferred). In others they will be of little or no value. There is no reason to suppose that postgraduate qualifications will be seen as an advantage where they are not relevant to a given occupation. The analogy with undergraduate growth here is inexact: the pool of people with good A levels but no Higher Education qualifications is very small relative to the pool of graduates and most employers would find it difficult to base a recruitment strategy around such a small group; by contrast, there will continue to be a large pool of good graduates who do not hold postgraduate qualifications.

Do UK postgraduate qualifications require reform?

131. The expansion of postgraduate education itself certainly demonstrates that the UK postgraduate sector has been successful in catering for home and overseas students alike. There is no credible case to be made for the kind of regulation which would dictate to institutions what they can teach and to whom: what is desirable is to optimise innovation within the sector whilst providing useful and comprehensible information to enable prospective students to navigate the very diverse provision on offer. There are risks attendant upon the fact that postgraduate courses of very different types appear to be clustering under the banner of the UK taught masters degree. To avoid these risks, the quality of information needs to be addressed. The arguments here are finely balanced but there is a strong case to be made for providing standardised information on the purpose and nature of masters degrees to enable prospective students to understand the nature of a course without implying that some are ‘officially’ superior to others. This would avoid the need to designate different postgraduate taught courses more finely at different levels. As argued above a standardised nomenclature may be the best way to achieve this.

132. It is worth noting that full-time taught masters students account for over two thirds of overseas postgraduates. Anything which reduces the credibility or attractiveness of the UK masters would be a grave threat to UK institutions.