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# A Review of Graduate Schools in the UK.

Fuller, MP

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# A Review of Graduate Schools in the UK

Pam Denicolo, Michael Fuller and Dianne Berry with Carolyn Raven



UK Council for Graduate Education



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#### **Foreword**

Postgraduate education has continued to grow in importance in the UK with most higher education institutions (HEIs) now involved in some way in the postgraduate research arena. The population of research students continues to increase mainly through continued overseas recruitment and now almost 17,000 candidates are awarded doctorates annually and the total population is over 80,000. Diversity of provision continues to increase through the wider uptake of both Professional Doctorates and Practice-based Doctorates and there is growing evidence of joint doctorates with international partners as well as doctorates delivered off-campus (through Trans National Education agreements).

The continued demand for the UK doctorate from international sources and the mobility and employability of doctoral graduates highlights the continued high quality of the UK doctoral product. Since the last report in this series (UKCGE 2004) the QAA has disseminated its revised Code of Practice and reviewed compliance and good practice in doctoral support through its "Special Review of Good Practice in Research Degree Programmes" (http://www.qaa.ac.uk). The main outcome of this review was that research degree provision in the UK is well supported while quality assurance is robust in all institutions. Furthermore, the implementation of Sir Gareth Roberts' recommendations (Set for Success) for funding for skills provision has resulted in an upsurge in generic skills training programmes. VITAE (formerly UKGRAD – http://www.vitae.ac.uk) has developed a database of good practice enabling it to be shared throughout the sector. In this way, doctoral students have never been better supported than in the past.

Both the QAA code of practice and the Roberts agenda have further helped HEIs to focus attention on institutional support structures and mechanisms for research students. Thus it was pertinent to review the continued development of institutional graduate school structures.

As this report goes to Press, the government is considering the future of postgraduate education (http://dbis.gov.uk) alongside a review of public expenditure as a consequence of the need to reduce public borrowing. It is not difficult to predict that the sector, including its research and research training activities, will face significant funding pressures in the near future. These challenges will undoubtedly once again impact on postgraduate research provision and organisation.

The two earlier reports in this series (UKCGE 1995, UKCGE 2004) charted the growth in the proportion of HEIs with a graduate school, with the majority of pre-1992 institutions subscribing to this model. The principal conclusion of this report is that this model also applies to the majority of the post-1992 HEIs. The report also presents results which show HEIs' dependence on continued Roberts funding for postgraduate research skills development, demonstrating an important dichotomy between the pre and post 1992 institutions with the pre 1992 institutions being considerably more dependent on its continuation than the post 1992s.

The report is the result of the efforts and commitment of the authors, Pam Denicolo, Mick Fuller, Dianne Berry and Carolyn Raven, and is a valuable contribution to our understanding of postgraduate management in the UK. It provides benchmarking information that will help HEIs to consider how they should develop their own postgraduate provision.

#### **Professor Steve Smith**

Vice Chancellor University of Exeter Chair of Universities UK 2010

For further information about the UK Council and its activities, please contact:

The Principal Officer
UK Council for Graduate Education
Lichfield Centre
The Friary
Lichfield
Staffordshire WS13 6OG

T:01543 308602 F:01543 308604 E:ukcge@ukcge.ac.uk www.ukcge.ac.uk

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#### Summary

- This study of the 2009 position of graduate schools in UK Higher Education Institutions largely repeats and updates previous surveys undertaken by the UK Council for Graduate Education in 1994 and 2004. The survey was sent to 124 member institutions and elicited 90 responses (representing a 73 per cent response rate). A web search of non-responding institutions was also undertaken but this information did not alter the general picture emerging from the returned questionnaires and so has not been included in this report.
- Postgraduate provision (PGT and PGR) has continued to expand in the UK. Postgraduate research student numbers have risen steadily but the majority of this increase has been due to growth in international student numbers who now represent over 30 per cent of the total. Research students continue to be concentrated within specific parts of the sector with 80 per cent located in only a third of HEIs, the majority of these being pre 1992 institutions. Furthermore, the gender balance continues to shift in favour of women (now 45 per cent) and there is a shift towards more candidates taking a break between their pre-qualifying courses and commencing their postgraduate research study while part-time graduate students tend to be 10 years older than those studying in full-time mode. Graduate provision has also grown in its diversity with a range of Professional Doctorate courses appearing, although the traditional doctorate still dominates the scene.
- In 2009, the majority of responding HEIs now have at least one graduate school (76 per cent, compared with 67 per cent in 2004) and within these institutions the predominant model is the institution-wide graduate school (63 and 89 per cent respectively for the pre and post 1992 HEIs).
   All of these graduate schools serve research students and most serve Professional Doctorate students. Many fewer serve postgraduate taught students.
- The roles and responsibilities of graduate schools across the sector have become more harmonised
  with pervasive responsibilities being improving the quality of graduate education and the student
  experience and sharing good practice in supervision. They all have responsibility for generic skills
  training programmes; most have responsibility for quality assurance and monitoring of student
  progress.
- Among the respondents, all of the pre 1992 institutions received Roberts Funding but a significant
  minority (28 per cent) of post 1992 institutions did not. In terms of perceived reliance on Roberts
  Funding for the future continuance of their generic skills training programme there was a sharp
  contrast between the two sectors with the pre 1992 institutions being highly or moderately
  dependent (93 per cent) whilst for the post 1992 institutions this was much lower (26 per cent).
  Generally, these figures mirror the respective proportions of funding received, numbers of PGR
  students enrolled and hence investment made in PGR support.

• During the five years since the last report, the Research Councils in the UK have altered their research student funding models drastically and now block grant or Doctoral Training Centre models account for the majority of their funded research training provision. Among the respondents the survey clearly demonstrated that DTCs were predominantly located in the pre 1992 institutions. However it was also clear that DTCs did not replace graduate schools in these institutions; instead they worked in harmony particularly with respect to monitoring and generic skills provision.



#### 1 Introduction

The UK Council for Graduate Education (UKCGE) was formed in 1994 'to promote the interests of graduate education'. It has a current membership of 124 HEIs in the UK representing the majority of research degree awarding institutions. In 1994 the UKCGE conducted a national survey which examined the reasons for the emergence of graduate schools in the UK, reviewed alternative organisational models, assessed the advantages and disadvantages of having a graduate school, and provided guidance on setting them up (UKCGE, 1995). This was followed by a further review 10 years later in 2004 (UKCGE 2004) which examined the further development of graduate schools in the UK.

Graduate education remains a significant matter for the higher education community, even though much has changed in the wider economic and political environment during the last five years and may be set to change again in the light of the Government Review of Post Graduate Strategy due for publication in 2010. When the first UKCGE report was published, graduate schools were a relatively new phenomenon in Britain but by 2004 they had been widely implemented across the country by Higher Education Institutions (HEIs). Influenced by the North American models and the undoubted success of these, the concept of an institutional structure dedicated to postgraduate provision is now a common feature across both the "new" (post 1992) and established (pre1992) institutions. Also, since 2003, postgraduate training has become a key focus for all HEIs delivering research degrees following the impact of the publication "Set for Success" (Roberts 2002) and the subsequent implementation of the so-called "Roberts" funding. These funds, distributed formulaically to HEIs dependent on the number of funded RCUK research students and postdocs, stimulated a huge response in the sector to the provision of generic skills training. In those HEIs with a graduate school the responsibility for this agenda was normally handed over to the graduate school and for those without one it provided a further reason to consider establishing one.

The position in December 1994 was that 33 per cent of HEIs already had graduate schools and another 30 per cent were considering or planning to establish them. By 2004, the position had changed and 67 per cent of HEIs had graduate schools and a further 5 per cent were considering establishing them whilst 5 per cent had moved away from a graduate school model. Furthermore in 1994 graduate schools were predominantly the preserve of the 'old' universities, but by 2004 they had become widespread across the sector.

The aim of this new report is to update the picture of graduate school provision in the UK following the investment and stimulus provided by the Roberts funding and to investigate whether their range of responsibilities and position within their organisational structures has altered. It also investigates how dependent the skills training is on Roberts funding and the distribution and impact of the new RCUK Doctoral Training Centres, particularly in relation to extant graduate schools.

The 2009 survey involved an e-mail survey of the UKCGE's 124 institutional members. The 90 responses amount to a 73 per cent response rate. This represents institutions responsible for approximately 70 per cent of doctoral students in the UK which is almost identical to the response received in 2003/04.

The results of the 2009 survey indicate that graduate schools are thriving and proliferating in the sector and that their aims and responsibilities are becoming more homogeneous. The delivery of the skills agenda is an important facet of graduate schools but the financial support for this varies between the pre-92 and the post-92 institutions. The results in relation to Roberts funding are particularly interesting while those for doctoral training centres provides evidence in relation to the concentration of RCUK funded research training.

The next section of this report provides an overview of the current position of postgraduate education in the UK followed, in Section 3, by a brief account of the development of graduate schools and a review of the dominant models, in terms of their remit and organisational structures. An international perspective of graduate schools is discussed in Section 4. In Section 5 the methodology employed to collect the data is described; the results of the 2009 survey are then presented and discussed, incorporating when relevant an overview of trends revealed by comparing the data of previous reports. Finally, Section 6, Discussions and Conclusions, summarises the main points emerging from this report, and offers some insights on the likely future of graduate schools.

#### 2 The national context of postgraduate education

The UK Higher Education landscape has changed considerably since the publication of the 2004 report. There have been changes, outlined below, to the profile of the student base, in terms of the balance between undergraduate and postgraduate, home and international, full-time and part-time, and male and female students. Looking specifically at postgraduate research students, there have also been changes in the age of entry to study, and the length of time since graduating from an undergraduate or master's course. Increased selectivity of research funding has resulted in a greater concentration of doctoral students in a small number of institutions, and shifts in the priorities of major funders of studentships have further exacerbated this, leading to the development of new types of doctoral programmes and training centres.

The total number of students studying in UK Higher Education Institutions has grown at a steady rate, from 2,086,075 in 2001/2 to 2,306,105 in 2007/8 (HESA 2009). Postgraduate students comprise just over 20 per cent of the total cohort. Over the past six years, the number of Home / EU postgraduate students has increased from 349,425 to 375,935, while over the same period the number of international postgraduate students increased from 120,425 to 125,200. Within these totals, the number of postgraduate research students has increased steadily, from 69,262 in 2001/2 to 81,491 in 2007/8, with the major share of the growth being in students from outside of the UK and European



Union. International students now make up over 30 per cent of the total number of students studying for a doctoral degree in a UK institution (having increased from 18,536 to 25,454 over the past six years). The largest increases in numbers have come from China and India. Other countries from which the UK recruits large numbers of students include Malaysia, Taiwan, Thailand, US and Canada whilst within the EU, most students come from Greece, Germany, Italy, and France. International student numbers are concentrated in particular disciplines, namely computing, engineering and technology, business and management, and law.

The expansion in numbers of international students has not yet been reflected in the proportions of students graduating from UK institutions with a doctoral degree. There was a slight decrease in the number of students from countries outside of the EU graduating with a UK doctorate between 2001/2 and 2007/8, with numbers falling from 5075 to 4775, while over the same period there has been a nearly 30 per cent increase in the number of Home / EU students graduating with a doctorate, with numbers increasing from 9130 to 11860 (HESA, 2009).

There has been a much larger increase in the number of students joining and studying on full-time than on part-time doctoral programmes, with full-time students now comprising around 75 per cent of the total population. The total number of full-time postgraduate research students increased from 50,800 in 2001/2 to 61,345 in 2007/8, whereas the number of part-time research students only increased from 18462 to 20,146, with the number having dipped briefly in 2004/5 (HESA, 2009).

Additional trends in the make-up of the postgraduate research student cohort over the past five years have been mapped out in a number of recent reports (DIUS, 2008; HEFCE 2009; UUK 2009). Taken together, these reports show:

- a larger increase in the number of females joining and studying for a doctoral programme, with females now comprising around 45 per cent of the total population
- an increase in the mean age at registration to just under 30 years, with those studying on a parttime basis being, on average, 10 years older than those studying on a full-time basis. Mean age at
  entry varies somewhat across disciplines, with education and arts and humanities subjects seeing
  the 'oldest starters' and the physical sciences the youngest
- a decrease in the proportion of students starting a doctoral programme directly from studying for a previous qualification
- an increase in the proportion of students who are self-funded or funded by a UK institution, with nearly 40 per cent of starters being self-funded, and nearly a quarter being funded by the institution at which they are registered. The proportion of part-time students with no financial backing is considerably higher (around 75 per cent)
- a decrease in the proportion of students funded by industry or UK charities, while the proportion funded by the UK Research Councils has remained constant
- some disciplines (such as computing, biological sciences, and creative arts and design) have seen a substantial increase in student numbers, whereas other (such as chemistry, physics and veterinary science) have seen decreases.

The traditional research doctorate still dominates the market but there has been a significant increase (around 70 per cent) in the number of students studying on doctoral programmes with a large taught component, such as professional doctorates. Over the past five or more years, the overall number of students on such programmes increased from 1382 in 2000/1 to 2362 in 20005/6. The majority of these students come from the UK and other EU countries, although international numbers have increased from 79 to 142 over the five year period (DIUS, 2008). A survey by UKCGE in 2005 identified over 51 different professional doctorate programmes within the UK at that time, and the number is likely to have increased since then (UKCGE, 2005).

As noted above, the increased selectivity of research funding over the past five to ten years has resulted in increased concentration of research students in a smaller number of institutions. In 2007/8, over one-third of the total student cohort was located in just nine institutions (HESA, 2009). Around 80 per cent of the student base was located in 50 institutions (which is one-third of the total number of institutions with doctoral degree awarding powers). At the other extreme, 20 institutions had fewer than 25 postgraduate research students registered in 2007/8 (HESA, 2009).

The differences mapped out here have implications for the nature of training and support that is expected and required by postgraduate research students. For instance, UK HEIs must consider the needs of a far higher proportion of international students than previously. Types, and levels, of support and training will need to take account of this. Furthermore, an increasing number of UK institutions are collaborating with institutions overseas to offer split-site PhDs where the training and research elements of programmes will be spread across institutions in different ways. UK HEIs must increasingly respond to the needs of students who are slightly older and more likely to have had a break from Higher Education before studying for a doctorate, again with implications for preferred learning styles and demands for mature responses from the institution. During the last five years the stipends for funded FT research students has risen following recommendations from the Set for Success Report (Roberts 2002). Nevertheless a greater proportion of research students are more likely to be selffunded. Increasing levels of undergraduate and master's study debt means that even those who receive some financial backing may well need to supplement this with income from part-time work. Escalating concentration of students means that institutions with smaller numbers will increasingly have to collaborate with other institutions in order to be able to run viable programmes and offer appropriate learning experiences. Recent moves by the Research Councils to provide block support for studentships and, in some cases, to fund Doctoral Training Centres or equivalent, will exacerbate these needs. In addition, the recent moves by the Research Councils, and some other funders, to provide funding for up to four years, rather than three, will also impact on expectations in relation to the amount, spread and nature of research training.

The recent publication of government plans for higher education (DBIS, 2009) makes it clear that "postgraduate education is a critical strategic issue" (p10) with trends towards greater concentration of doctoral students in specific institutions to be amplified, alongside further pressure to produce postgraduates with higher level skills aligned to the requirements of industry.



#### 3 The development of graduate schools in the UK

The two previous publications that focussed on graduate schools (UKCGE 1995 and UKCGE 2004) have together charted the development in number, distribution and kind of organisational entities sharing the common name of graduate school from their introduction in the UK some twenty years ago. Each publication was based on a survey addressed to UK institutions of Higher Education (HEIs) so, to provide context to the description of results from the latest survey on the topic (conducted towards the end of 2009) similarly conducted with UK HEIs, that history will be summarised here.

The recognition by academics and other stakeholders in research of a need to organise more effectively support and training of postgraduates, particularly research students, originated in concerns about submission and successful completion rates for research degrees, the marginalisation of postgraduate work during the years of expansion of undergraduate programmes, and competition from wider Europe for postgraduate registrations as institutions on the continent made efforts to formalise and improve research degrees and postgraduate provision. Further, the general expansion of postgraduate numbers, the growing emphasis of Research Councils on formal training and the improvements in official monitoring mechanisms of postgraduate programmes and support, added to the pressure to move away from the traditional model of the research student as personal apprentice to a supervisor. Instead a model was sought that encompassed a focus of attention and resources through an identifiable organisational structure that complements the supervisors' role and enhances student support and training. The general concept of graduate school evolved in the UK from a North American model of graduate education that regards it highly, resources it well, attracts elite scholars and seeks to generate world-class research.

Despite the acclaimed wide diversity of UK HEIs that demands, and has resulted in, variations in the style, structure and detail of postgraduate provision, comparison of the results from respondents to the two previous surveys (1994, 2004) demonstrated that the number of graduate schools had more than doubled during the intervening period, with several more institutions planning to establish one or more graduate schools in the foreseeable future. Graduate schools were becoming established as the main institutional device for dealing effectively with postgraduate provision, with the variant that served institution-wide rather than a specific sub-community remaining the most common model in both the pre- and post-92 universities. It is of interest in the current climate of multi and interdisciplinary collaborative research that only one example of an inter-institutional graduate school was reported. However, as postgraduate numbers grew and staff experience accumulated, devolved models (Faculty or School level), that had formally only been found in pre-92 institutions were increasingly found in post-92 universities while some of the former were disaggregating institution-wide ones to provide more focussed Faculty provision. Which model prevails currently in the most recent survey (2009) will be disclosed in the results section which will also consider the stability and consistency of the aims and requirements of graduate schools.

The 1995 report defined a graduate school as follows:

"a distinct organisation concerned with the promotion of high quality graduate education and the administration of graduate education within an institution or across a number of institutions" (UKCGE, 1995)

Further, that report suggested that a primary requirement for a graduate school was a clear identity within an organisation's structure, with its own head and committee, while a powerful advocate at senior management level was considered essential to represent postgraduate and research student interests and secure resources, including adequate administrative support. The report declared that, to be effective and influential across the institution's mission and processes, graduate schools required powers, enshrined within their aims and objectives, to devise and implement their own policy and procedures. While the 2003/4 respondents confirmed the importance of a defined identity, it seems that the obvious benefits of economies of scale for training and of professional administration of a complex and evolving arena have granted established graduate schools a recognised part of institutional provision with an accepted place in the strategic policy and resource allocation process, reducing the need for an additional senior champion. Again whether this trend has continued will be revealed in the results section but it is notable that Wellington in his forthcoming book (*Making Supervision Work for You: A Student's Guide.* Wellington, in press) advises research students that their chosen institution 'will probably have a graduate school'.

The previous survey noted that despite some commonality in aims and objectives between graduate schools, their detail and how they were translated into practice displayed some diversity as might be expected given the range of institutional contexts. A case in point is the strong emphasis from the original survey on indicating that dedicated facilities and accommodation were important for success. In 2004 the 'virtual graduate school' was described as being in the minority (24% of those responding, with many of them declaring plans for dedicated facilities in spite of space being at a premium in most institutions), the rest at least having office space for related administration and managerial staff, many with teaching space and/or a common meeting area for students but fewer than half having study space for students. This latter was not simply a space issue, the authors noting a tension between building an institutional community of postgraduates and building a discipline-based research community.

Graduate schools also gave careful consideration to the need for diversity in provision to meet institutional as well as disciplinary culture, and particularly to respond to student need as shifts take place in the postgraduate research profile and in the way that learning is achieved, using developing technology as well as face to face work in groups with common interests. How these predictions of context transformation have played out in practice can be seen in the current section on the UK context. The expectation expressed in the 2004 document that this area of the sector would be marked by significant change has been borne out but the critical financial problems that have ensued globally and their impact on UK higher education in general was not foreseen. How this has translated into the work of graduate schools in the UK, their style, structure and pervasiveness will be seen in the results and discussion sections that come later. Before that, though, it is important to consider the wider context.



#### 4 The international perspective on graduate schools

Debate over the organisation of doctoral education throughout the world is active in the research intense nations since these are most concerned with the training of the next generation of researchers. Emerging nations frequently follow a model that involves sending its most academically able students to the developed nations for training.

The concept of the graduate school originated in North America during the 1960's and currently is well networked, organised and supported by confederation organisations (Council of Graduate Schools USA (CGS) and Canadian Association of Graduate Schools (CAGS)). The North American model has been a major influence on the development of the concept of graduate schools in the UK, mainland Europe, Australia, New Zealand, China and Brazil. Graduate education in American universities is generally well resourced, well regarded, and indeed is often accorded higher priority than undergraduate education, attracting elite research scholars and sustaining universities' reputations for world-class research. Most combine Masters and Doctoral level qualifications in a single unit and run taught components and skills training whilst supporting a distinctiveness of provision through a well-resourced building or centre. Academic staff often become affiliated members of the graduate school and deliver the taught components of their courses within the graduate school/centre.

The North-American graduate education model combines an extensive taught programme of study in the early years of a research degree and normally requires the completion of a masters programme preceding the doctoral programme. Optimistic completion time for the doctorate is typically 6-8 years (2 yrs M + 3/5 yrs D research + write-up). Masters' programmes in such set-ups are typically very heavily focussed on research methodology. Graduate schools in North America are typically associated with successful research intense or business intense universities and it is atypical to find clusters of research students outside of these graduate schools although students may conduct their research/data collection phase of their masters or doctoral project in confederated government or private research laboratories. Professional doctorates have also emerged from North American graduate schools and are considered to be a successful way of introducing research competency particularly into the business and health professions. Since PhD programmes have taught elements in North America there is not a debate as there is in Europe concerning the distinction between Professional Doctorates and the PhD. There has been a recent steep rise in some Professional Doctorates in the USA recently, notably in Professional Nursing (DPN) and this qualification has moved away from a substantial research focus as found in the PhD to a taught and competency based approach with a 'cap-stone' project which is generally research focussed but not extensive. In contrast in the UK, Professional Doctorates are generally considered to be research degrees with at least 50 per cent of the qualification associated with a research project. The Professional Doctorates are still managed predominantly by graduate schools in the USA.

Graduate schools in many other parts of the world have largely copied the North American model although infrastructure costs mean that in many places the graduate school exists within other

structures of a faculty or institution. In mainland Europe, graduate schools are a relatively recent innovation but have been given encouragement through the Bologna Process. The Bologna Process got around to considering its 3rd Cycle (doctoral degrees) only relatively recently in 2004 but quickly realised the advantages offered by graduate school structures and recommended their wider adoption: "institutions need to take responsibility for the further developments in this crucial cycle to sustain and enhance Europe's research and innovation capacity" (Crozier et al 2007). Throughout Europe there is still a mixture of models existing for doctoral education (Table 1a) but there is a growing trend to organised doctoral education with 2 models emerging, defined as follows:

**Graduate Schools** – an organisational structure that includes doctoral candidates and often master students. It provides administrative, development and transferrable skills support, organises admissions, courses and seminars, and takes responsibility for quality assurance.

**Doctoral/Research Schools** – an organisational structure that only includes doctoral students. It may be organised around a particular discipline, research theme or cross-disciplinary research area and/or it is focussed on creating a research group/network and is project driven. It may involve one institution only or several institutions in a network. (Crozier et al 2007).

Table 1a Organisation of Doctoral Education in Europe 2006
(Reproduced from Crozier et al (2007) Trends V report)

Organisation of doctoral education	Number of countries	Countries
Individual education only (model 1)	5	Bosnia-Herzegovina, Cyprus, Georgia, Malta, Montenegro
Structured programmes only (model 2)	4	Croatia, Estonia, Lithuania, Spain
Doctoral/graduate research schools only (model 3)	3	France, Lichtenstein, Turkey
Mixed model (1 + 2)	12	Andorra, Austria, Belgium-Flanders, Czech Republic, Greece, Iceland, Ireland, Latvia, Poland, Romania, Russia, Slovak Republic
Mixed model (2 + 3)	2	Italy, Norway
Mixed model (1 + 3)	2	Belgium-Wallonia, Netherlands
Mixed model (1 + 2 + 3)	9	Albania, Armenia, Germany, Denmark, Finland, Sweden, UK and Scotland



The conclusions of recent EUA research (Anon 2007) were similar to those from the UK in 2004 (UKCGE 2004) and were as follows.

The advantages and added value of doctoral/graduate/research schools are that they:

- Define a mission or vision shared by all partners that facilitates the process of turning doctoral candidates into excellent researchers;
- Provide a stimulating research environment and promote cooperation across disciplines;
- Provide a clear administrative structure for doctoral programmes, candidates and supervisors, and
  offer a clear profile and status for doctoral candidates;
- Ensure critical mass and help to overcome the isolation of young researchers;
- Bring junior and senior researchers together;
- Support and facilitate the task of supervising candidates and the role of supervisors;
- Organise admission with transparent rules and regulations;
- Provide teaching and transferable skills training;
- Provide enhanced career development opportunities, including advice on funding opportunities (scholarships, projects);
- · Guarantee quality assurance and monitoring;
- Provide a framework allowing the development of codes of practice, procedures and mechanisms
  within the university structure and act as a an independent arbitrator or ombudsman where
  necessary;
- Enhance opportunities for mobility, international collaboration and inter-institutional cooperation.
   Anon (2007)

These conclusions serve to emphasise the trend towards harmonisation of academic vision for doctoral education across Europe as has been the case in the UK. The level of autonomy of universities in Europe varies widely and different countries have approached the reform of doctoral education by either legislation or by encouragement of innovation through competitive funded initiatives e.g. the German Excellence initiative, the Irish Graduate Schools initiative, the strategic foundation for Swedish research, the national PhD agenda Denmark, the Norwegian research council doctoral training initiative. Under all of these initiatives mixed models are being proposed including networks between universities, flagship research excellence models and multidisciplinary models. The over-riding theme in these initiatives is to encourage Research/Graduate Schools around demonstrable research excellence and this model is encouraged by the EU through Marie Curie and Erasmus Mundus network funding and is also being encouraged by the research funding councils in the UK through Doctoral Training Centres (DTC).

The emergence of the recognition of Good Practice in European doctoral education has also spawned initiatives for the export of doctoral reform through initiatives such as the EAHEP Doctoral initiative (Anon 2009) which advocates the establishment of graduate schools.

#### 5 The 2009 Survey

#### 5.1 Methodology

The 2009 survey comprised a questionnaire (Appendix 1) which was sent out electronically to all 124 institutions who were full members of the UK Council for Graduate Education at the time. (Appendix 2). Non-respondents were sent three further reminders before the final closing date of 23rd October 2009. The final response rate was 73 per cent (90 responses from 124). It was noted that respondents were evenly distributed with 54 per cent from pre 1992 Institutions and 46 per cent from post 1992 institutions. (Appendix 3 provides the full list of respondents.) This is very close to the proportions (51:49) of these groups which are members of UKCGE and to the proportion in the total population of UK HEIs with their own higher degree awarding powers (52:48).

The aim of the survey was an attempt to produce an authoritative national overview of how postgraduate/research degree provision is organised within higher education institutions. Respondents were asked to annotate their answers if the questions did not fit their local circumstances very well. There were few such annotations but those that were included accordingly moderated how the data were interpreted.

The first question set the scene by asking if the university had a graduate school or other discrete structure(s) for postgraduate education. It specifically excluded externally funded Doctoral Training Centres. The ensuing six questions referred to specific aspects of the graduate school(s) while questions 8 and 9 addressed receipt of Roberts funding and extent of dependence of skills training on that funding. The final three questions explored Doctoral Training Centres and the extent to which they are linked to the graduate school(s). Thus, although some of the questions were derived directly from the previous reviews of graduate schools (1994 and 2004), the survey was designed to take account of the widespread changes impacting on Higher Education institutions.

The results are grouped more simply than in previous publications with the only differentiation being between pre and post 1992 institutions. This allowed for some general comparisons for some of the questions with the data from previous surveys in which the responses from the latter were aggregated by combining the results from pre-1960 with 1960 to 1990 institutions and also combining the post-1990 results with those from HE colleges and institutions.

As with the previous survey, the information has been provided by one contact person in each institution with the covering letter requesting that an appropriate person fulfil this role to help us provide a definitive statement on graduate schools in the UK. However, given the variation in the use of terms across the sector, it is recognised that their responses may not always accord with the way others might represent their organisation's structure. In addition, not all questions were completed in full by all respondents while several institutions have more than one graduate school (from the 68



institutions that responded a total of 113 graduate schools were recorded), therefore some totals on tables do not equal the number of questionnaires completed.

A study of institutional web-sites served two purposes, the first to seek clarification if items were missing or confusing in responses and second to explore whether non-responding institutions had graduate schools. For relevant questions initial calculations were made using data from the survey and then re-calculated including data from the web search. It was found that the latter made no significant difference to the percentages obtained and so this data has been omitted from tables to aid clarity of presentation.

#### 5.2 Results

The first question required respondents to declare if their university had a graduate school, whether there was more than one and which parts of the institution they served. Table 1b demonstrates that, of those member institutions who returned a response, 76 per cent have graduate schools, and that these are more prevalent in pre 1992 universities (82%) than post 1992 universities (68%). In addition a further 12 per cent (14% and 10% respectively) reported that they were considering setting up a graduate school. One of these added in the comments that, although serious consideration had been given and plans made for such a school, the current insecurity about Roberts funding was delaying its establishment. Another such institution suggested that the need to encourage inter-disciplinary research and to provide social and administrative support to postgraduates was leading the management team to consider developing a graduate school. One institution which had established their graduate school only last year commented that it was now well-integrated into the academic framework.

Table 1b Existing graduate schools (of UKCGE member institutions from forms returned)

	Pre 1992	Post 1992	Total
Number who responded	49	41	90
Number with Graduate Schools	40	28	68
Considering setting one up	5	6	11
% with Graduate Schools	82%	68%	76%

Some institutions reported complex combinations of graduate schools, such as one at faculty level and several at school level. Therefore Table 1c combines such data so that the focus is on 'institution-wide' or not. It shows that pre-1992 institutions have the greatest diversity of models while the dominant model across the sector, but particularly in the post 1992 group, is the institution-wide version.

Table 1c Models of graduate schools in institutions

	B 4000	D / 4000
	Pre 1992	Post 1992
Institution-wide	61%	89%
Faculty/Department based	33%	11%
Disciplinary	0	0
Inter-institutional	2%	0
Cross Institutional	2%	0
Other	2%	0

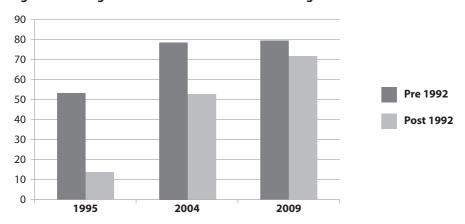
(Note, three Pre 1992 institutions have two different models of Graduate Schools)

The figures derived from this survey were compared with those from the previous surveys (1994 and 2004). Table 1d provides the percentages and Figure 1 a pictorial demonstration of the rise in the proportion of institutions with graduate schools. Clearly the most growth has been in the post 1992 group of institutions.

Table 1d Comparison of survey data: number of institutions with at least one graduate school

	1995	2004	2009
Pre 1992	53%	78%	79%
Post 1992	14%	53%	72%
Overall	38%	65%	76%

Figure 1 Histogram of Institutions with at least one graduate school

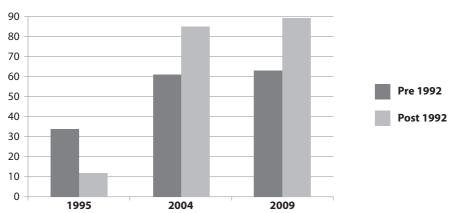


Similarly, comparisons were made of the data relating to the model of graduate school used. The results for the predominant model, the institution-wide model, are displayed numerically and pictorially below as Table 1e and Figure 2.

Table 1e Comparison of institutions with graduate schools who have an institution-wide graduate school

	1995	2004	2009
Pre 1992	34%	61%	63%
Post 1992	12%	85%	89%
Overall	21%	46%	74%





The post 1992 group uses the institutional-wide model the most, perhaps reflecting a smaller number of research students, although overall there has been a large swing to this model. However, this general model subsumes a wealth of variety at a more detailed level as will be seen in the responses to subsequent questions.

**Questions 2** and **3** sought information on the groups of students served by the graduate schools that responded. The choice presented allowed for postgraduate researchers (PGR), postgraduates on taught courses (PGT), and professional doctorates (Prof Doc). All graduate schools reported that they served postgraduate research students but there was variation in serving PGT and Prof Doc students. The tables below indicate the results in terms of the total numbers of graduate schools that provide for PGT and Prof Doc students (Table 2a) and the numbers of institution-wide graduate schools that also have this wider provision (Table 2b).

Table 2a Numbers of graduate schools which serve Postgraduate Taught Students and Professional Doctorate Students in addition to Postgraduate Research Students

	Pre '	1992	Post 1992		
	Yes	No	Yes	No	
Serve PGT	47	23	8	35	
Serve Prof Doc Students	50	20	26	17	



Of the total number of graduate schools, 48 per cent serve PGT students and 67 per cent serve Prof Doc students but there is a distinct difference between groups. Of the pre 1992 institutions' graduate schools, 67 per cent serve PGT students and 71 per cent serve Prof Doc students as well as PGR students while of the post 1992 institutions' graduate schools only 19 per cent also serve PGT students and 65 per cent also serve Prof Doc students.

Table 2b Numbers of institution-wide graduate schools which serve Postgraduate Taught Students and Professional Doctorate Students in addition to Postgraduate Research Students

	Pre '	1992	Post 1992		
	Yes	No	Yes	No	
Serve PGT	16	10	7	18	
Serve Prof Doc Students	21	5	20	5	

Of the institution-wide graduate schools, in total, in addition to postgraduate research students, 45 per cent serve PGT students and 80 per cent serve Prof Doc students. Comparing the results in Tables 2a and 2b, it is clear that professional doctorate students are more likely to be catered for in institution-wide graduate schools.

For the pre 1992 institution-wide graduate schools, 62 per cent serve PGT students and 81 per cent serve Prof Doc students. In contrast, of the post 1992 institution-wide graduate schools only 28 per cent serve PGT students and 80 per cent serve Prof Docs. This data clearly shows that there is a lot of variation in the sector in how PGT students are served. This was also evident in the earlier surveys.

**Question 4** requested respondents to rate a number of provided aims as High, Medium, Low or Not Applicable in terms of their importance to their graduate school(s). A free text option was provided to enable respondents to add further aims and this was taken up by a few pre 1992 institutions who rated as high or medium the following additional aims:

- developing a supportive doctoral community/engendering a research culture;
- ensuring consistency of postgraduate provision/coordinating training and development of postgraduates;
- increasing funding for postgraduate research;
- improving synergies between postgraduate research and enterprise;
- · managing part time research degrees;
- developing a strategy for postgraduate education;
- consideration of introducing a professional doctorate.

Table 3 presents the results ordered by the overall percentage of institutions rating each of the listed aims highly.

Table 3 Importance of aims for graduate schools

	Pre 1992			Post 1992			Totals					
	High	Medium	Low	N/A	High	Medium	Low	N/A	High	Medium	Low	N/A
Improving the quality of graduate education	100%	0	0	0	100%	0	0	0	100%	0	0	0
Improving the student experience	98%	2%	0	0	96%	4%	0	0	97%	3%	0	0
Improving research progression and completion rates	83%	13%	2%	2%	100%	0	0	0	89%	7%	2%	2%
Sharing good practice on research supervision	85%	15%	0	0	89%	11%	0	0	87%	13%	0	0
Representing graduate issues within and/or outside the institution	80%	20%	0	0	79%	21%	0	0	79%	21%	0	0
Improving PGR degree administration	60%	23%	10%	7%	93%	7%	0	0	74%	16%	6%	4%
Increasing the number of PGR Students	63%	33%	2%	2%	68%	29%	3%	0	65%	31%	3%	1%
Promoting interdisciplinary work	53%	33%	6%	0	46%	29%	25%	0	50%	31%	19%	0
Increasing the number of PGT students	25%	38%	7%	30%	14%	0	11%	75%	21%	22%	9%	48%
Sharing good practice on PG teaching	23%	16	8	7	11%	38%	11%	42%	18%	38%	16%	28%
Other	18%	3%	0	0	18%	0	0	0	18%	0	0	0
Improving PGT degree administration	20%	25%	13%	42%	11%	7%	11%	71%	16%	18%	12%	54%

Percentages are calculated on a total number of responses of 40 pre 1992 and 28 post 1992 institutions



All respondents agreed that improving the quality of graduate education is a highly important aim and, similarly, there was considerable agreement that improving the student experience and sharing good practice on research supervision is also of high importance. While many agree that improving research progression and completion rates is a highly important aim for their graduate school, this response was more predominant in post 1992 institutions.

There was good agreement between the two groups on the degree of importance of representing graduate issues within and/or outside the institution, but the post 1992 institutions rated improving PGR administration more highly than the pre 1992 institutions.

Pre 1992 institutions tended to rate promoting interdisciplinary work slightly more highly than post 1992 institutions.

For all the institutions, aims relating to postgraduate teaching were rated mainly as of medium or low importance reflecting the responses to Q2 (above).

**Question 5** enquired whether or not the graduate school(s) had their own budget or cost centre. Table 4a presents the percentage response for the total number of respondent graduate schools.

Table 4a Graduate schools with own budget/cost centre

Institutions	Yes	No	Don't Know	Responses
Pre 1992	79%	13%	8%	70
Post 1992	61%	30%	9%	43
Total	72%	20%	8%	113

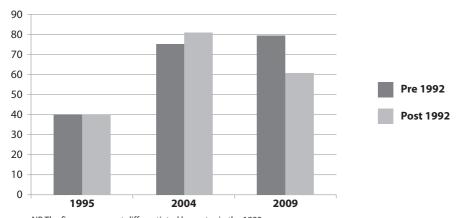
Currently, then, the majority have a budget or cost centre but those that do not are more likely to be in the post 1992 group.

Table 4b provides the data for comparison over the three surveys while Figure 3 displays that data as a histogram.

 $Table\ 4b\quad Comparison\ of\ graduate\ schools\ with\ own\ budget/cost\ centre\ 1995, 2004, 2009$ 

Institutions	1995	2004	2009
Pre 1992	40%	75%	79%
Post 1992	40%	81%	61%
Overall	40%	77%	72%

Figure 3 Histogram of comparison of percentages of graduate schools with own budget/cost centre for 1995, 2004, 2009



NB The figures were not differentiated by sector in the 1995 survey

These figures demonstrate a steep rise in the number of graduate schools having their own budget/cost centre between 1995 and 2004, almost doubling for both the pre 1992 and the post 1992 groups. During the past five years, although the total number of graduate schools have increased in both groups the proportion having their own budget/cost centre has slightly increased for pre-1992 institutions but reduced for the post 1992 group. The reasons for this apparent change of policy were not sought in the survey but it is assumed that in the last 5 years many institutions have reorganised their support structures and financial management and as a consequence many graduate school budgets may have been subsumed into larger directorate budgets.

**Question 6** sought information on whether or not graduate schools had dedicated accommodation and **Question 7** asked respondents to specify what allocated space is provided. Table 5a gives the percentages of institutions that have dedicated accommodation and information about how that space is used by those who have it.



Table 5a Percentage of institutions with dedicated accommodation and how that is used

	Pre 1992	Post 1992
Has dedicated accommodation	74%	93%
- Head of GS/Graduate Dean	77%	63%
- PG Admin staff	96%	68%
- Social Space	42%	25%
- Teaching Space	44%	25%
- Visiting research staff	27%	18%
- Other staff	2%	3%

These figures illustrate that currently a majority of institutions have dedicated accommodation but this was particularly the case in post 1992 institutions. The two groups of institutions seem to use that accommodation differently: pre 1992 institutions are more likely to use it for postgraduate administration staff, for social space and teaching than post 1992 universities.

Table 5b shows the percentages of institutions with dedicated accommodation has changed over the period covered by the three surveys.

**Table 5b Percentage of institutions having dedicated accommodation 1995, 2004, 2009** (NB The figures were not differentiated by sector in the 1995 survey)

Institutions	1995	2004	2009
Pre 1992	52%	67%	74%
Post 1992	52%	85%	93%
Overall	52%	77%	81%

This demonstrates an increasing trend for the number of graduate schools with dedicated accommodation but also highlights a stronger trend in this direction for post 1992 institutions. Thus, although they are less likely to have their own budget, graduate schools in this group are more likely to have their own distinct accommodation.

**Question 8** requested information on the student desk space provided in the graduate school(s). Responses indicated that this was not a high priority for most graduate schools with about 19 per cent of both pre and post 1992 institutions providing permanent desk space for full time students, and with

12 per cent of pre 1992 and only 3 per cent of post 1992 institutions providing permanent desk space for part time students. Use of hot desk space is more widespread with 21 per cent and 25 per cent allocated to full and part time students respectively in pre 1992 institutions and even more so in post 1992 institutions with full and part time students being allocated in 33 and 35 per cent respectively. This question elicited several additional comments which focussed on the distribution of responsibilities for PGR desk space. In general there appears to exist a mix of central (graduate school) and local (department/school/faculty) support and desk space was frequently within the remit of the latter especially for science-based students.

**Question 9** included a large list of potential areas of work. Respondents were asked to indicate on a scale of 'High/Some/None' their involvement with these areas of work. Responses were received from those institutions that already had at least one graduate school and from those considering setting one up. The results were analysed for each group separately and then combined. As the priorities in both groups were very similar, only the data for those who already have at least one graduate school are presented here (Table 6).



Table 6 Degree of involvement of graduate schools in the delivery of specified areas of work

	Pre 1992		Pre 1992			Pre 1992			
	High	Some	None	High	Some	None	High	Some	None
Research Student training programmes – generic skills training	85%	15%	0	86%	14%	0	85%	15%	0
Quality assurance/monitoring	73%	25%	2%	86%	11%	3%	78%	19%	3%
Monitoring student progress	63%	28%	9%	89%	11%	0	74%	21%	5%
Research supervisor training	53%	35%	12%	82%	14%	4%	65%	27%	8%
Central co-ordination of responses to national consultations	53%	33%	14%	82%	11%	7%	65%	24%	11%
Liaison with research Councils	55%	35%	15%	68%	21%	11%	60%	29%	11%
Award of Studentship	60%	28%	12%	61%	25%	14%	60%	27%	13%
Recruitment/admission (PGR)	45%	40%	15%	75%	21%	4%	57%	32%	11%
Student records	46%	27%	27%	75%	18%	7%	57%	24%	19%
Website – internal and/or external	43%	57%	0	71%	29%	0	54%	46%	0
Research Student training programmes – research methods	50%	45%	5%	57%	36%	7%	53%	41%	6%
Provision of learning resources for PG/Research students	48%	50%	2%	50%	36%	14%	49%	44%	7%
Registration/matriculation	28%	38%	34%	68%	21%	11%	44%	31%	25%
Preparing returns to HESA, funding councils etc	24%	37%	37%	71%	21%	8%	44%	31%	25%
Liaison with student organisations	30%	63%	7%	43%	43%	14%	35%	54%	11%
Publicity/postgraduate prospectus	23%	60%	17%	50%	43%	7%	34%	53%	13%
Research Students training programmes – learning to teach	33%	55%	12%	11%	50%	39%	24%	53%	23%
Development of new taught PG programmes	20%	48%	32%	14%	32%	54%	18%	41%	41%
Social Provision for Students	20%	70%	10%	11%	64%	25%	16%	68%	16%
Liaison with employers/industry etc	13%	53%	34%	21%	58%	21%	16%	54%	30%
Recruitment/admission (PGT)	28%	40%	32%	0	29%	71%	16%	36%	48%
Specific support for international students	15%	60%	25%	14%	64%	22%	15%	62%	24%

From this table it is apparent that all graduate schools are involved with the generic skills training programmes for PGR students with 85 per cent being highly involved.

This convergence of activity related to skills training between the two groups of universities is less evident in relation to the other work areas on the list. Nearly all are also involved in quality assurance and progress monitoring in some way but there is variation between the pre 1992 and post 1992 groups in the degree of responsibility for research supervisor training, central coordination of responses to national consultations and liaison with research councils with those graduate schools in the post 1992 group being more involved in these processes.

Similarly, a lower percentage of pre 1992 institutions rated as a high priority: postgraduate research recruitment and admission and student records and websites gaining a score of around 45 per cent for pre 1990 but 70 plus per cent for the post 1992 institutions. An even greater disparity can be seen in the degree of involvement in registration/matriculation and in preparing returns to HESA, and to research councils. Again many more graduate schools in post 1992 institutions have these responsibilities.

Most of the graduate schools had some responsibility in relation to social provision for students with the pre 1992 a little more than the post 1992 institutions (70 compared to 64 per cent).

Additional comments recorded for this question included explanations about different administration offices having responsibility for different areas, not all postgraduate administration being undertaken by graduate schools, and graduate schools working closely with other administration offices.

**Questions 10 and 11** focussed on Roberts funding for the generic skills agenda, the former asking if the institution received it and the latter to what extent their skills training programme was dependent on it. This question provoked the highest number of additional comments in the survey. While three institutions recorded that they were making some kind of contingency plans should Roberts funding cease, such as embedding skills training in academic programmes, many of those with moderate to high levels of funding reported some concern that their skills training was very dependent on this funding at a time of uncertainty about its continuation. There was also some indication that those institutions with little or no Roberts funding felt disadvantaged against those with larger funding since all were required to produce high quality support for and training of postgraduate researchers.

Table 7 provides the data on how many of the respondents in each group and overall receive Roberts funding. Table 8a gives the degree of dependence on Roberts funding, while Tables 8b and 8c disaggregates the data into those with and those without graduate schools, again looking at the extent of dependence.



Table 7 Responding institutions that receive Roberts Funding

	With Graduate School		No Graduate School		Overall	
	Pre 1992	Post 1992	Pre 1992	Post 1992	Pre 1992	Post 1992
Yes	40	23	9	9	49	32
No	0	5	0	4	0	9
Responses	40	28	9	13	49	41

Table 7 shows that the vast majority of respondents received Roberts funding with only 10 per cent (9 respondents) not in receipt of this funding. All of the respondents not in receipt of Roberts funding were in the post 1992 institutions yet half of these (5) still had graduate schools. In contrast 20% of pre 1992 institutions (9 respondents) received some Roberts funding but did not have a graduate school to administer it.

Table 8a Overall extent of institutions' dependence on Roberts Funding

	Pre 1992	Post 1992	Total
Highly	37 (76%)	3 (9%)	40 (49%)
Moderately	9 (18%)	4 (13%)	13 (16%)
Low	3 (6%)	20 (63%)	23 (29%)
Not at all	0	5 (15%)	5 (6%)

Table 8a shows that there is a perceived higher dependence of pre 1992 institutions on Roberts funding than in the post 1992 group. The data for institutions with or without graduate schools is aggregated into two classifications in Tables 8b and 8c where the big difference in responses between the pre and post 1992 institutions is emphasised.

Table 8b Institutions with graduate schools – extent dependent on Roberts Funding

	Pre 1992	Post 1992	Total
Highly/Moderately	37 (93%)	6 (26%)	43 (68%)
Low/Not at all	3 (7%)	17 (74%)	20 (32%)

Clearly a large percentage (93 per cent) of the institutions with graduate schools in the pre 1992 group consider that they are dependent on Roberts funding whereas in the post 1992 group the figure much lower (24%).

This difference is also apparent in those institutions with no graduate schools (Table 8c). This indicates that it is not simply the presence of graduate schools that makes for this differentiation.

Analysis of the distribution of Roberts funds (Vitae 2009a) clearly shows that the pre 1992 institutions receive on average far more Roberts funding than the post 1992 institutions. The results to Q's 10 and 11 could indicate that this difference between the groups is probably highly resource (income) motivated.

Table 8c Institutions without graduate schools – extent dependent on Roberts Funding

	Pre 1992	Post 1992	Total
Highly/Moderately	9	1	10 (56%)
Low/Not at all	0	8	8 (44%)

The final set of **questions**, numbers **12**, **13** and **14**, explored the number of externally funded Doctoral Training Centres (DTCs) in participants' institutions, whether the institution has aspirations to apply for any in the next 12 months and the extent to which any existing DTCs are integrated with graduate school provision. The first two questions produced the data presented in Tables 9a and 9b.

Table 9a Numbers of institutions with Externally Funded Doctoral Centres

	Pre 1992	Post 1992
Yes	26	3
Applying for one in the next 12 months	39	13
No	12	26

It was clear that the majority of extant DTCs are in pre 1992 institutions and applications in progress or planned for also tend to be from the pre 1992 institutions. This finding is perhaps not surprising because of the selection criteria for Research Council funded DTCs precluded many post 1992 institutions from applying. The ambition to apply for a DTC in the near future largely reflects the current call by the ESRC (March 2010).



Table 9b elaborates the data for those institutions with a DTC to show that the post 1992 institutions have only one or two DTCs, whereas of the pre 1992 institutions most have two or more and some have ten or more. Thus a clear divide currently exists between the pre and post 1992 groups and this is unlikely to be countered in the future (cf DBIS 2009).

Table 9b Numbers of Externally Funded Doctoral Centres in institutions that have them

	Pre 1992	Post 1992	Total
1	12%	67%	17%
2-5	62%	33%	59%
6-9	19%	0	17%
10+	7%	0	7%
	100%	100%	100%

Finally, in relation to the level of integration of DTCs into graduate schools, the three that exist in post 1992 institutions were equally distributed across the given choice of responses: fully or partially integrated or free standing. For the pre 1992 institutions 46 per cent were noted as partially integrated, while there were 27 per cent noted as being fully integrated and an equal number as being free standing. However comments provided by respondents indicated that, while the graduate schools and DTCs may not be formally linked, research students would be members of both and/or would use facilities in both. Furthermore students would either use graduate school programmes or, in some cases, the DTCs would tailor their programmes around the graduate school provision to meet specific needs of students. One respondent noted that although the DTCs in the institution were free standing they were supported in some activities by the graduate school.

#### 6 Discussion and Conclusions

Recognising that change is always with us, the early sections of this report outlined those developments prevalent in UK Higher Education and internationally that have particularly impacted on postgraduate education in the intervening years between this report on graduate schools<sup>1</sup> in the UK and the previous one in 2004. These serve to provide context to the comparisons made between the results of the two surveys presented in Section 5 of the present report. For completeness these comparisons also included, where available, the results from the original 1994 survey of graduate

<sup>1</sup> The survey referred throughout to 'graduate schools' though the first question allowed for the use of alternative nomenclature within institutions by including: 'or other equivalent discrete structure(s) for postgraduate education' within its rubric.

schools, a survey conducted in the year that the UK Council for Graduate Education was established. The UKCGE was then the first of many new organisations (Vitae {formerly UKGRAD and UKHERD}; SRHE Postgraduate Interest Network; Rugby Team- a sector working group on the impact of skills training) at the national level to focus on some aspect of the structures, functions, activities, outputs and outcomes of study beyond the first degree (cycle 1). This was in response to what could be called a period of benign neglect in which the progress and support of doctoral students was the concern of independent institutions and the responsibility of individual supervisors.

The transformations in the acknowledged significance of postgraduate students that have taken place since the 1996 Harris Review of Postgraduate Education (HEFCE 1996) is unprecedented and that significance, beyond their numerical proportion in the UK, relates to the development globally of a knowledge society in which research, and the attributes and skills required to conduct it, are increasingly recognised as economic goods essential to future prosperity of UK economy. The language of the marketplace now permeates the HE academy, not simply in financial terms related to fee income to the institution but also in terms of the value of higher education in general and postgraduate education in particular to the prosperity, and currently the economic recovery, of the country. In the recent report, Higher Ambitions: The Future of Universities in a Knowledge Economy, 2009, the Secretary of State emphasised<sup>2</sup> not only the need to sustain and increase our world class research base but also the need for universities to become more competitive in giving priority to programmes delivering high level skills.

The above developments contribute to a credible explanation for the growth in numbers of graduate schools and the proportion of institutions with them across the sector<sup>3</sup>: not only have the numbers and diversity of postgraduate students increased, requiring attention to economies of scale, but also there is an imperative to produce the highest quality of support and training within restricted resources to maintain a competitive edge in market with an expanding number of providers internationally. The QAA revised Code of Practice for postgraduate research students (QAA 2004), the Report *Set for Success* (Roberts 2002) and the subsequent introduction of funding support for generic research skills training, albeit tied to Research Council funding for research students, also contributed to this growth in organisational structures intended to enhance and make equivalent, if not standardise, the provision for students engaged in diverse postgraduate degrees in disparate disciplines. With a shorter history of postgraduate research degree provision, the post 1992 institutions had been, from the data produced by the two previous surveys, slower in establishing graduate schools but from the 2009 survey data they have evidently responded in the last five years to the pressures to consolidate their provision through graduate schools structures. On the face of it, it would appear that postgraduate research students across the UK are now more formally supported than ever before.

In addition to increasing numbers, some harmonisation of vision of graduate school provision is evident across the HEI sector in that the institution-wide version is the model of choice for most, though this holds particularly in the post 1992 group. The development of inter-institutional graduate schools

<sup>2</sup> http://www.bis.gov.uk/mandelson-outlines-future-of-higher-education

<sup>3</sup> The data shows 113 individual graduate schools, with some institutions having more than one.



appears to have remained static across the sector despite the earlier 2004 report suggesting that research/graduate schools could facilitate inter-institutional co-operation. It could be that this role will now be assumed by the collaborative Doctoral Training Centres (see below), especially those that require a large critical mass of research postgraduate students.

The report on the 2004 survey included a caveat about the dangers of pursuing a 'one model fits all' policy in that such a model would be detrimental to providing for an increasingly diverse student body with a wide range of needs, as HEIs respond both to the government's Widening Participation agenda and the requirements of business and industry for highly trained and qualified researchers in an increasingly competitive global market. Fortunately, despite the indications of convergence noted above, the responses to other questions in the current survey indicated that the term 'graduate school', or even the more specific 'institution-wide graduate school', still masks a wide range of variation in the type of students catered for and in what responsibilities individual graduate schools assume. For instance, the responses to questions two and three of the present survey suggest that UK institutions have not moved whole-heartedly to the North American graduate school model which combines postgraduate taught (PGT) and postgraduate research (PGR) courses. The clear prime focus in UK graduate schools is the postgraduate research community. Some institutions (preponderantly in those with an institution-wide graduate school) also include within that community students following Professional Doctorates programmes, which in the UK are characterised by having both significant research and taught components, in contrast to their US counterparts that are predominantly taught programmes.

Although some graduate schools do cater to some extent (see responses to question four) for students on taught postgraduate programmes, these are in the minority. It is assumed that where PGT responsibilities are not included in the graduate school remit they are catered for at the faculty/school/department level. The similarities of PGT procedures with those of undergraduates may well influence this decision at the institutional level, with reporting and administrative strands traditionally following either teaching and learning or research activities. As the boundaries between postgraduate research and postgraduate taught programmes become increasingly blurred by the expansion of research components in masters programmes and the addition of generic skills training to research methods training during the course of doctoral programmes, these traditional organisational pathways are becoming restrictive so that the work encompassed by graduate schools requires different reporting structures. In Maheu's 2008 report on the workings of Canadian graduate schools, it is notable that graduate schools there on the whole are equivalent to Faculties and have equivalent independent reporting systems (in an HE postgraduate system that has developed similarly to that in the UK). They tend to be led by very senior academics of equal standing to Deans or even Vice Principals in recognition of the strategic importance of graduate education. The paper particularly addresses the tensions produced by these graduate schools having potentially conflicting roles and remits, including combining an institutional quality assessment role for all graduate provision with an active role in specific research course provision.

The responses in this survey indicate that there is a developing commonality between the UK and Canadian situation in some respects. For instance, question four provided the opportunity to analyse

the aims and their relative importance in UK graduate schools. The results indicated that graduate schools are the vehicle used not only to promote more consistent and high quality provision for postgraduate researchers (the highest rated aim) but also to implement change in response to other external pressures, for example to increase the number and variety of such students, to secure further funding and to instigate enterprise activities. Although there is again an indication of some correspondence of vision across the aims of different institutions' graduate schools, the post 1992 group did consistently rate as more important those aims related to administration. This is an interesting response that could reflect the fact that pre 1992 universities, with their long history of supporting higher degrees, already had well developed systems for administering PGR students before the advent of graduate schools and so this was not an issue. In contrast, PGR provision has grown rapidly in recent years in the post 1992 institutions in parallel with graduate schools so it may be that it was natural that the latter should encompass the development of PGRS administrative systems within their remit. There was, not unexpectedly, general agreement on the aim to increase postgraduate research numbers. While increasing the number of postgraduate taught course participants was a lower priority for both groups, the post 1992 sector rated increasing these numbers (and consequently the income from them) of greater importance than their counterparts in the pre 1992 group. This too is not unexpected since the funding streams for research related activities are biased towards those in the pre 1992 group.

Similarities to the Canadian situation also emerge when considering the embedding of graduate schools as important entities within institutions, further illustrated by the responses to questions five, six and seven. These three questions examined the autonomy of graduate schools among the respondents' institutions. In summary, it would appear that, in the majority of institutions, graduate schools are largely autonomous entities enjoying budgetary control and free-standing accommodation. By inference from the responses to question five, many also have a designated Head of Graduate School or Dean of Graduate Studies reflecting institutional recognition for the need of a senior manager of the graduate school. The provision of designated social space in which postgraduates can meet is also a feature of a reasonable number of graduate schools, again reflecting a differentiation of these students from the undergraduate taught community whom one would generally expect to use the Student Union facilities. It would be comforting to think that this indicates a growing respect for the maturity of postgraduate students, though this does not yet equal the tradition in many European countries of treating them as academic staff as well as research colleagues. However temporary the research training career might be, given that many research students do not intend to work in academia beyond their doctorate (Vitae 2009b), practical indicators of respect are also important for promoting successful completion.

Evidently there is not yet universal or consistent provision of study space across the sector, or indeed within individual institutions, as implied by the responses to question eight about the provision of desk space for students. This question provoked several comments from respondents. Although there is an underlying pattern related to different disciplines having different cultures and research modes (working in laboratories more frequently than at a desk, for instance) these responses seem also to reflect the different infrastructures of universities and availability of space. Nevertheless the



predominant theme is that provision of desk space is delegated to schools or departments although some institutions are trying to improve provision, particularly by establishing hot desk space for part time students. Study or desk space is an important factor for doctoral students contributing to a sense of belonging and value and this could particularly be a factor in the satisfaction scores achieved by an institution. This may be particularly acute for international students since their personal residential accommodation may be restricted and not conducive to long hours of intensive studying. Clearly issues regarding desk space increase as doctoral student numbers rise and tensions may arise as students move into writing-up phases of study frequently paying nominal fees. It can be during this phase that central provision of desk space in a graduate school may be most appropriate.

Question nine provided a range of responsibilities with which any graduate school might engage in order to determine the breadth of their remits. The responses indicated that more of the graduate schools in the pre 1992 group are selective and focussed in their activities, perhaps reflecting the fact that a larger proportion of these graduate schools are faculty/school/subject based with many of the wider responsibilities consequently sitting elsewhere in the institutional framework. The contrary appears to be the case for the post 1992 sector where the institution-wide model of the graduate school is more predominant and is, as a consequence, a repository for all matters relating to PGR students both internally and externally. Nevertheless all of the graduate schools described in this survey are involved with generic skills training of postgraduate students, while most have a quality assurance role and some degree of involvement in progression monitoring, mirroring the aim for greater consistency of postgraduate provision noted in the responses to question four.

With the national review to consider the impact of Roberts funding imminent, and with it consideration of future funding of postgraduate provision in a difficult economic climate, it is understandable that questions ten and eleven about receipt of and dependence on this funding provoked the most additional comments irrespective of whether the respondents were based in pre or post 1992 institutions. The vast majority of respondents, whether or not they had a graduate school, have been in receipt of some Roberts funding, though clearly more of the pre 1992 institutions consider themselves as highly or moderately dependent on it, even if they do not have a graduate school. All of the ten per cent of institutions not receiving this funding were in the post 1992 group yet half of them nevertheless had a graduate school of some kind. Caution, though, is required when interpreting survey data of this kind since quantitative data may be masking differences in kind or situation.

Such variation in perceived dependence may be related to the fact that the Roberts funding is not evenly distributed across all HEIs but follows Research Council student funding model. It is clear that the large proportion of these funds have been concentrated in the pre 1992 institutions, with each institution receiving comparatively more than those in the post 1992 group, and this funding has been used to radically improve provision for their larger numbers of students, both research council funded and others. In contrast to this, most of the post 1992 institutions are clearly at least partly resourcing generic skills training by means other than Roberts funding, though in general this is for a smaller number of students while in a few cases the provision is quite basic. Manifestly, though, post 1992 institutions have transferred resources to augment their small Roberts' allocation in order to raise their

PGRS, and hence general research, profile. This situation would appear to suggest that the post 1992 group of institutions could survive with a generic skills training programme and graduate school intact, albeit for a small number of research students, if Roberts funding ceased. However, in the pre 1992 institutions such provision is evidently believed to be more vulnerable simply because the rapid escalation of the training and support of a larger cohort of postgraduate research students to a globally excellent standard has been made possible by the larger share of Roberts funding.

The distinct advantage to graduate schools of this funding stream has been that it is ring-fenced for providing support to the research student group and for their main activities. There is a fear that undifferentiated funding will inevitably mean a reduction in the proportion allocated within institutions for these purposes, given the relatively short period allowed for culture change and the other urgent and competing demands within organisations. Thus, the global competitive advantage to UK PGRS recruitment, that was up to 2011 being gained by superior provision, might well be lost. Such a dissipation of the impetus to UK HE provided by the total Roberts' agenda, including funding, to become one of the world leaders in research education and training would not just be disheartening to those involved but it also would impact adversely on the national economy in the future.

There are similar concerns about other initiatives intended to enhance research training. Like graduate schools in the early years of their establishment, the new Research Council funded Doctoral Training Centres (DTCs) are currently found almost, but not quite, exclusively in the pre 1992 institutions, most of whom also have graduate schools. There are only small numbers spread across a few institutions in the post 1992 group. This is not surprising given the Research Council pre-qualification criteria for application. Although the survey sought to define this situation it was also concerned to determine the level of integration of DTCs with graduate schools. Comments from the free response section report a variety of links so it was clear that DTCs do not preclude generic graduate school provision within an institution. Since DTCs are externally funded then the long term commitment to their structures will be dependent on the security of future funding. These 'experiments' with DTCs will require some future evaluation by the Research Councils and may yet influence the sectoral landscape for graduate schools in the future.

This survey has provided evidence that graduate schools have the potential to continue to contribute significantly to maintaining and enhancing the excellent postgraduate provision in the UK that is still the envy of other nations (Stewart 2007, Kemp et al 2008). They have certainly become the general structure of choice designed for that purpose even though, or perhaps especially because, each institution has evolved a particular form that suits its own individual circumstances. As alluded to in the previous paragraphs, there are, however, particular threats to maintaining diversity of choice specifically for postgraduate researchers if the drive towards the concentration of research into fewer institutions is realised. This will be especially so if the concerns expressed by respondents about the viability of graduate schools and their role in skills training is as susceptible as they indicate to a loss or reduction in the "ring-fenced" funding provided currently under the Roberts' recommendations.



One thing is certain about the future: there will continue to be challenges to overcome, and not simply economic ones. The UK HEIs response to the increase in competition caused by others emulating our good practice is a real challenge as more and more competition, especially for international doctoral candidates, emerges from continental Europe and then from China and India. The three UKCGE surveys have provided snapshots over the past fifteen years of considerable development through the vehicle of graduate schools of postgraduate education in the UK, but there is little time to pause for congratulations. It is to be hoped that graduate schools are now such an embedded organisational asset within the HE sector that the tribulations and challenges of the current and future economic situation will not deflect them from their prime mission to develop, evaluate and stimulate responsive and innovative postgraduate education.

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# **Appendices**

# Appendix 1 Graduate School Survey



### UK Council for Graduate Education

### **Graduate School Survey**

#### Notes on electronic completion of the questionnaire

#### **Open & Save**

- Double-click on the template opens as a word document.
- To save, please include the name of your institution as part of the file name and save to your pc.
- To return the questionnaire, email UKCGE (c.l.raven@ukcge.ac.uk) and add the saved document as an attachment.

Name of institution	
Your own name	
Your position in the institution	

Please annotate your answers if our questions do not fit your local circumstances very well. Our aim is to produce an authoritative national overview of how postgraduate/research degree provision is organised within higher education institutions.



# Q1. Does your university have a graduate school (or other discrete structure(s) for postgraduate education)?

PLEASE DO NOT INCLUDE EXTERNALLY FUNDED DOCTORAL TRAINING CENTRES HERE

	(Please put 'x' in all the boxes that apply)
Yes, one serving the whole institution	
Yes, more than one (if so please state the number against each of the following)	
Faculty	
Disciplinary	
Cross Institutional	
Inter Institutional	
Other (please specify)	
Yes, but not serving the whole institution (if so, please describe its basis)	
No [Go to Q8]	
No, but we are considering setting up one [Go to Q8]	

### Q2. Does the Graduate School serve

	(Please put 'x' in all the boxes that apply)
Post Graduate Taught	
Post Graduate Research	
Professional Doctorates	

### Q3. How important are the following aims for your graduate school(s)

(Please put 'x' in the relevant box)

	High	Medium	Low	N/A
Improving the quality of graduate education				
Increasing the number of PGT students				
Increasing the number of PGR Students				
Representing graduate issues within and/or outside the institution				
Promoting interdisciplinary work				
Improving PGT degree administration				
Improving PGR degree administration				
Improving Research progression & completion rates				
Improving the Student Experience				
Sharing good practice on PG Teaching and				
Research supervision				
Other (please state)				

#### Q4. Does (do) the graduate school(s) have its own budget/cost centre?

(Please put 'x'	in the relevant b	ox)	
Yes	No	Don't know	



# Q5. Does (do) the graduate school(s) have dedicated accommodation?

(Please put 'x' in the relevant box)			
Yes	No	(If no, please go to Q7)	

## Q6. If yes, what allocated space is provided?

	(Please put 'x' in all the boxes that apply)
Head of the Graduate School/Graduate Dean	
Research degree/postgraduate administrative staff	
Research degree students	
Taught postgraduate students	
Social space for Students	
Teaching/Training space	
Visiting Research staff	
Other staff (please specify)	

# Q7. Please indicate the degree of involvement of the Graduate School(s) in delivery for the following:

(Please put 'x' in the relevant box)

	High	Some	None
Development of new taught postgraduate programmes			
Award of Studentships			
Recruitment/admission			
Registration/matriculation			
Student records			
Monitoring student progress			
Quality assurance/monitoring			
Central co-ordination of responses to national consultations			
Preparing returns to HESA, funding councils etc			
Provision of learning resources for PG/research students			
Research Student training programmes – research methods			
Research Student training programmes – generic skills training			
Research Student training programmes – learning to teach			
Specific support for international students			
Social provision for students			
Research supervisor training			
Publicity/postgraduate prospectus			
Website – internal and/or external			
Liaison with student organisations			
Liaison with employers/industry etc			
Liaison with research councils			



# **Roberts Funding**

Q8. Do you receive Roberts Funding?
(Please put 'x' in the relevant box)  Yes No
Q9. To what extent is your skills training programme dependent on Roberts Funding? (Please use space below)
Externally Funded Doctoral Training Centres
Q10. How many Doctoral Training Centres do you have currently funded?
(Please put 'x' in the relevant box) 0
Q11. Is your institution applying for any Doctoral Training Centres over the next 12 months?
(Please put 'x' in the relevant box)  Yes No

# Q12. To what extent are your existing Doctoral Training Centres integrated with Graduate School provision within your Institution?

	(Please put 'x' in all the boxes that apply)
Integrated	
Free Standing	
Please add any comments here	

Please feel free to add comments about your institution's arrangements for managing research degrees and postgraduate provision						

Thank you for taking time to complete this questionnaire.

Please return it electronically to c.l.raven@ukcge.ac.uk



# Appendix 2 List of UKCGE Member Institutions (as of November 2009)

#### **Full Members**

University of Aberdeen

University of Abertay Aberystwyth University

Anglia Ruskin University

**Aston University** 

**Bangor University** 

**Bath Spa University** 

University of Bath

University of Bedfordshire

Birmingham City University

University of Birmingham

University of Bolton

**Bournemouth University** 

University of Bradford

University of Brighton

University of Bristol

**Brunel University** 

**Buckinghamshire New University** 

University of Cambridge

Canterbury Christ Church University

**Cardiff University** 

University of Central Lancashire

University of Chester

University of Chichester

Cranfield University

University of Cumbria

De Montfort University

University of Derby

University of Dundee

**Durham University** 

University of East Anglia

University of East London

**Edge Hill University** 

University of Edinburgh

University of Essex

University of Exeter

University of Glamorgan

Glasgow Caledonian University

The Glasgow School of Art

University of Glasgow

University of Gloucestershire

Glyndŵr University

University of Greenwich

Heriot-Watt University

University of Hertfordshire

University of Huddersfield

University of Hull

Imperial College London

Institute of Cancer Research

Institute of Education

**Keele University** 

University of Kent

King's College London

Kingston University

Lancaster University

Leeds Metropolitan University

#### Full Members continued...

University of Leeds

University of Leicester

University of Limerick

University of Lincoln

Liverpool Hope University

Liverpool John Moores University

University of Liverpool

London Metropolitan University

**London School of Economics** 

London School of Hygiene and Tropical Medicine

London South Bank University Loughborough University

Manchester Metropolitan University

University of Manchester Edinburgh Napier University

National Institute for Medical Research

University of Newcastle upon Tyne

The University of Northampton

Northumbria University

**Nottingham Trent University** 

University of Nottingham

The Open University

Oxford Brookes University

University of Oxford

School of Pharmacy, University of London

University of Plymouth

University of Portsmouth

Queen Mary, University of London

Queen's University Belfast

Ravensbourne College of Design & Communication

University of Reading

Roehampton University

Royal College of Art

Royal Holloway College

The Royal Veterinary College

University of Salford

University of Sheffield

Sheffield Hallam University

University of Southampton University of St Andrews

The College of St Mark and St John

Staffordshire University

University of Stirling

University of Strathclyde

University of Sunderland

University of Surrey

University of Sussex

Swansea University

University of Teesside

Thames Valley University

**UHI Millennium Institute** 

University of Ulster at Jordanstown

University College London

University for the Creative Arts

University of the Arts, London

University of Wales Institute Cardiff

University of Wales, Newport

University of Warwick

University of the West of England

University of the West of Scotland

University of Westminster

University of Winchester

University of Wolverhampton

University of Worcester

York St John University

University of York



#### **Associate Members**

Athens Graduate School of Management
The British Library
British Sociological Association
British School of Osteopathy
Canadian Association for Graduate Studies
The Islamic College
Markfield Institute of Higher Education
National Union of Students

Royal Scottish Academy of Music & Drama Royal Society of Chemistry The Royal Academy of Engineering Society for Endocrinology Society for General Microbiology School of Advanced Study, University of London Scottish Agricultural College

# Appendix 3 List of Responding Institutions

University of Abertay

Aberystwyth University

Anglia Ruskin University

**Aston University** 

**Bangor University** 

Bath Spa University

University of Bath

University of Bedfordshire

University of Birmingham

University of Bolton

**Bournemouth University** 

University of Bradford

University of Brighton

University of Bristol

**Buckinghamshire New University** 

Canterbury Christ Church University

**Cardiff University** 

University of Chester

Cranfield University

University of Cumbria

University of Derby

University of Dundee

**Durham University** 

University of East Anglia

University of East London

**Edge Hill University** 

University of Essex

University of Exeter

University of Glasgow

University of Gloucestershire

Glyndŵr University

Heriot-Watt University

University of Huddersfield

University of Hull

Imperial College London

Institute of Cancer Research

Institute of Education

**Keele University** 

University of Kent

King's College London

Kingston University

Lancaster University

Leeds Metropolitan University

University of Leicester

University of Limerick

University of Lincoln

Liverpool Hope University

Liverpool John Moores University

University of Liverpool

London Metropolitan University

London School of Hygiene and Tropical Medicine

Loughborough University

Manchester Metropolitan University

University of Manchester

National Institute for Medical Research

University of Newcastle upon Tyne

The University of Northampton

Northumbria University

**Nottingham Trent University** 

University of Nottingham

University of Oxford

University of Plymouth

University of Portsmouth

Queen Mary, University of London

Queen's University Belfast

University of Reading

Roehampton University

Royal Holloway College

The Royal Veterinary College

Sheffield Hallam University

University of Southampton

University of St Andrews

The College of St Mark and St John

Staffordshire University

University of Stirling

University of Strathclyde

University of Sunderland

University of Sussex

Swansea University

University of Teesside

Thames Valley University

**UHI Millennium Institute** 

University of Ulster at Jordanstown

University of Wales Institute Cardiff

University of Warwick

University of Winchester

University of Wolverhampton

University of Worcester

York St John University

University of York

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### Published titles - all available from the UKCGE website, http://www.ukcge.ac.uk

ISBN	Title
0-9525751-0-8	Graduate Schools (1995)
0-952-5751-1-6	The Award of the Degree of PhD on the Basis of Published Work in the UK (1996)
0-9525751-9-1	Quality and Standards of Postgraduate Research Degrees (1996)
0-9525751-2-4	Practice-Based Doctorates in the Creative and Performing Arts and Design (1997)
0-952-5751-3-2	The status of published work in submissions for doctoral degrees in European Universities (1998)
0-952-5751-4-0	Preparing Postgraduates to Teach in Higher Education (1999)
0-952-5751-5-9	The International Postgraduate: Challenges to British Higher Education (1999)
0-952-5751-67	Research Training for Humanities Postgraduate Students (2000)
0-9525751-75	Research Training in the Creative and Performing Arts and Design (2001)
0-952-5751-83	Professional Doctorates (2002)
0-9543915-0-0	Research Training in the Healthcare Professions (2003)
0-9543915-1-9	A Review of Graduate Schools in the UK (2004)
0-9543915-2-7	The Award of PhD by Published Work in the UK (2004)
0-9543915-3-5	Confidentiality of PhD Theses in the UK (2005)
0-9543915-4-3	Professional Doctorate Awards in the UK (2005)
0-9543915-5-3	Access to Doctoral Examiners' Reports (2007)
0-9543915-6-0	Higher Doctorate Awards in the UK (2008)
0-9543915-7-7	Quality and Standards of Postgraduate Research Degrees (2009)
0-9543915-9-1	Preparing to Teach in Higher Education (2010)



A Review of Graduate Schools in the UK





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Lichfield Centre The Friary Lichfield Staffordshire WS13 6QG T: 01543 308602 F: 01543 308604 E: ukcge@ukcge.ac.uk

www.ukcge.ac.uk