

GOVERNMENT REVIEW OF POSTGRADUATE PROVISION – SUBMISSION OF EVIDENCE FROM THE RUSSELL GROUP OF UNIVERSITIES

Summary

1. The Russell Group of Universities wish to emphasis the following points in their submission of evidence to the Government's review of postgraduate provision.
 - The UK offers a wide **diversity of postgraduate provision** across taught courses and research degrees. This diversity is welcome in the HE sector, and amongst students and employers. It is seen as positive attribute of the UK system providing many different pathways to higher level skills.
 - The UK has a **strong international reputation** for high-quality postgraduate education, and is an attractive destination for European and overseas students. 58% of European students and 53% of other overseas students studying for a research-based postgraduate qualification are enrolled at Russell Group institutions. This compares with 33% of European students and 28% of overseas students taking taught postgraduate courses at Russell Group institutions.
 - **The UK's leading universities are competing for postgraduate students in a global market place.** Talented graduates, particularly those who view postgraduate study as vehicle towards a career in research, will increasingly look at opportunities in a number of institutions around the world. For those undertaking research degrees, as well as many masters courses, decisions about where to study take into account not only the nature and quality of the research being undertaken, but the reputation of the research group and institution; the additional opportunities available by way of transferrable skills training, work placements, and overseas study; and the overall package of support. Language barriers or opportunities and wider cultural and social aspects play a part too. These factors apply to home students as much as those from outside of the UK.
 - **Maintaining the excellence and attractiveness of UK postgraduate education:** evidence shows that postgraduate education, and especially doctoral programmes, must be underpinned by world-leading research supported by world-class facilities and a critical mass of researchers. Funding research, university infrastructure and postgraduate education at sustainable levels is needed to maintain this over the longer-term. We believe that resources should be directed towards those most capable of delivering excellent provision. It is vital to maximise UK competitiveness in the global market. This means building capacity by recruiting highly trained personnel with expert knowledge and understanding of their field – which, in turn, means attracting the most able students to the best courses. Thus excellence should be a major driver of policy.
 - **The UK's international competitiveness is under threat** from the increasing expansion of specialist postgraduate providers overseas; a shift towards provision of high-quality courses in English in European and Asian institutions; uncertainties about the impact of the Bologna reforms; and the loss of funding sources to support the best postgraduate research students who wish to study in the UK. Talented

international students are vital to Russell Group institutions because they add to an institution's research productivity, help to internationalise the experience of all students, and often become future research leaders and collaborators with leading UK institutions.

- The current **funding for postgraduate education is not sustainable**. In particular:
 - There is significant under funding of laboratory-based doctoral programmes. Alternative, more sustainable funding models are needed if the quality of the postgraduate experience is to be maintained
 - There is a threat to the future of the funding for transferrable skills training provided by the Research Councils. Maintaining ring-fenced support for transferrable skills training is essential to maintaining the quality and competitiveness of doctoral programmes
 - The loss of a number of sources of funding is deterring some talented overseas researchers who wish to take a postgraduate research degree from coming to the UK. Whilst Russell Group institutions provide scholarships for the very best it is becoming increasingly difficult to compete effectively for international talent

Diversity within postgraduate education

2. It is important that the different strands of postgraduate education are considered individually by the review. The motivations of students, modes of funding, size of cohorts, duration of study, means of delivery, and career aspirations differ significantly between different kinds of provision. We note 6 main types of provision:
 - Postgraduate research degrees, primarily doctoral provision ranging from 3-4 years
 - Professional doctorates in selected subjects such as education and clinical psychology
 - Research-based taught courses (MRes), which are usually followed by a PhD
 - Traditional, discipline-based Masters courses, the majority of which will include a significant research component, such as the MA, MSc or LLM
 - Professional Masters courses, which are primarily training programmes for specific career paths e.g. PGCE, various courses for health professionals, legal qualifications, social work, town planning qualifications, information science and librarianship
 - Diplomas, certificates and a variety of courses which may or may not count towards a postgraduate qualification

THEME 1: INTERNATIONAL

The UK needs to remain internationally competitive in both attracting overseas students and in the prospects of UK postgraduates in the global employment market. International students provide a crucial fee income for many institutions, as well as enriching the UK's international networks

- *How can the UK remain an attractive place for postgraduate study?*
- *How can those who have studied in the UK continue to be competitive in the international marketplace for talent?*
- *Does the proportion of UK domiciled students in the UK PG population matter?*

UK competitiveness in the global market for PG education

- 1.1 Russell Group universities focus on attracting the best students regardless of domicile. This includes talented UK students who may otherwise choose to study abroad. Overseas postgraduate students are particularly welcome because they bring a different dimension to an institution's research productivity, and help to internationalise the experience of all students in terms of subject specific skills, and the broader cultural environment.
- 1.2 The UK's competitiveness in the global PG education market is based upon offering high quality programmes which demonstrate high levels of student satisfaction and lead to students acquiring knowledge, competences and skills which they and employers value.
- 1.3 Whilst the UK is successful in this market (with around 15% of the global share) there are a number of well-documented international developments which are increasingly having an impact on UK competitiveness:
 - **Bologna reforms** across Europe are providing mobile postgraduate students with more opportunities and the UK with more competition. Increasingly the norm across Europe for the minimum period of postgraduate study is seen as a 1 to 2 year masters course followed by a 3 year PhD, whilst the UK (in STEM subjects at least) the move is towards a combined masters and doctorate (1+3 model)
 - **Delivery of courses in English.** Postgraduate students commonly travelled to the UK to develop English language skills as well as gain a postgraduate qualification. Many European (and other) countries are now offering postgraduate programmes in English. Courses in English in other countries provide an attractive and often cheaper alternative to studying the UK
 - **New, specialist postgraduate institutions**, such as KAUST in Saudi Arabia and the Masdar Institute of S&T in Abu Dhabi, have been specifically established to attract the world's brightest postgraduates by offering state-of-the-art facilities and attractive fees and financial support arrangements. These institutions provide new and direct competition for the UK's leading institutions
 - Many other countries are offering **competitive charging and attractive financial packages** to attract international postgraduate students. Germany and France are marketing their postgraduate research degrees to Chinese students with very low fees, and New Zealand is charging overseas postgraduate researchers the same fees as home students.
- 1.4 It is also worth emphasising that the UK's 15% market share is highly subject and country dependent. For example, the majority of overseas students undertaking postgraduate research degrees are arts and humanities students from the US and engineering and technology students from China.
- 1.5 At the highest level, maintaining UK competitiveness relies on the continued funding, support and promotion of a high-quality, attractive research environment, and the UK's openness and emphasis on attracting high-quality students from home and

abroad into postgraduate study. Institutions need to be able offer a broad range of prospective programmes to engender a lively postgraduate community, whilst retaining the flexibility to respond to new educational agendas. Russell Group institutions aim to articulate the skills, education and training a postgraduate programme will offer and how these relate to a range of future career options. They are also keen to provide postgraduate education in an international context and are increasingly developing strategic partnerships with overseas universities and research centres to offer a broader, cross-cultural learning experience to students and to foster recruitment to each other's programmes.

- 1.6 UK institutions need to continue to communicate messages about quality, value for money, and the benefits of a UK-based postgraduate education to potential students and employers as the number of public and private providers of postgraduate education increases in the UK, Europe and beyond. The cost of postgraduate study in the UK can seem expensive to potential overseas students, so it is essential to communicate what is being offered as clearly as possible, how provision at a UK institution is distinctive, and the value it confers in terms of education, experience, skills and the qualification gained.
- 1.7 One hurdle to maintaining international competitiveness is the relative lack of sources of financial support for overseas students studying for a postgraduate research qualification in the UK compared to the US, and increasingly other European countries. This is dealt with more fully under theme 5.
- 1.8 There needs to be greater coherence and alignment between national policies for postgraduate provision and the UK border controls and visa system. Controls should not deter or prevent bona fide students from being able to enter the UK to study, and to remain and work after completing their studies. One issue is that overseas students who have completed a masters course and are successful in securing a doctoral position have to reapply for a UK visa in order to continue their studies, which is time consuming and incurs additional cost.
- 1.9 There is a lack of data about the career destinations of overseas students who study for postgraduate qualifications in the UK. Work should be undertaken to sample or regularly collect information about whether postgraduates remain in the UK and for how long, whether they return to their home country or move elsewhere; and the kinds of careers they pursue and the added-value of their education and training.
- 1.10 Whilst the diversity of postgraduate education in the UK is a strength, more effort is needed to articulate via existing quality frameworks how some UK postgraduate qualifications align with internationally recognised norms. This clear articulation of equivalence is needed to enable postgraduates from UK institutions to access further study and/or employment outside of the UK. The Professional Doctorate in particular is not well understood or recognised outside of the UK.

Taught courses

- 1.11 HESA data on origins of students studying for postgraduate taught qualifications (including doctorates, masters degrees, diplomas and certificates) show that 33% of European students and 28% of overseas students are studying at Russell Group institutions.
- 1.12 Competitiveness relies on being able to respond flexibly and rapidly to changing market conditions and opportunities. Regulation should be minimised, whilst ensuring that safeguards are in place to maintain quality standards. Maintaining quality is essential as postgraduates completing programmes at leading UK institutions will be competing in an international labour market and must be able to demonstrate a comparable – and ideally superior - range of knowledge and skills as those graduating from leading institutions in other countries. Maintaining confidence in the

quality of the UK's taught postdoctoral provision is also central to maintaining the UK's share of the global market.

Research degrees

- 1.13 Internationally, there is an expectation that doctoral programmes should be delivered in departments and laboratories staffed by internationally recognised researchers, with access to top-class facilities and resources. Maintaining the high quality of UK PhD training therefore requires investment in world-class facilities, a critical mass of excellent researchers, and sufficient resources to provide training of breadth and depth.
- 1.14 HESA data on origins of students studying for postgraduate research-based qualifications (including doctorates, masters degrees and other research related qualifications) show that the majority of European students (58%) and overseas students (53%) are studying at Russell Group institutions.
- 1.15 As indicated above, doctoral graduates in particular are likely to be looking for work in an international labour market. UK graduates must be able to demonstrate a comparable range of knowledge and skills as those graduating from leading institutions in other countries, such as the US. The best doctoral programmes should develop the skills of their students to enable them to be able to conduct international competitive research, and to deploy these skills in new and creative ways to tackle research challenges both within their own field and other areas. Students should also gain an understanding of how advanced research contributes to business and wider society. Employers are also looking for strong communication, management, team-working and leadership skills, and good UK doctoral programmes include a significant component of transferrable skills training.
- 1.16 The quality of the UK PhD makes it a transferrable international commodity. PhDs are also often the starting point for future international research collaboration. A balance needs to be struck between quality and speed of delivery, provision of skills to facilitate employability and training in a supportive environment with a critical mass of PhD students.

Proportion of UK domiciled postgraduate students

- 1.17 A significant proportion of students should be UK domiciled to ensure that the UK is training sufficient numbers of individuals with advanced and higher skills. A range of high quality provision is needed to provide pathways and a breadth of choice for UK students aspiring to undertake postgraduate qualifications in the UK.
- 1.18 Maintaining a balance of UK, EU and other overseas students on UK postgraduate courses and degrees provides a diverse and well-rounded experience for all of the students, which is one of the attractions of studying in a UK institution.

THEME 2: VALUE OF PG

The highly skilled postgraduates that the UK produces power our research base and drive our innovative businesses. Undertaking postgraduate education provides individuals with pathways into a wide range of careers.

- *What are the benefits of postgraduate education, to the individual, to HEIs, to businesses and to the wider economy and society?*
- *Is there an optimal number of taught / research postgraduates studying in the UK?*

Benefits to individuals

- 2.1 Whilst there is a lack of systematic research on the long-term financial returns and other benefits of postgraduate education compared to undergraduate study, the benefits to individuals may be broadly described as follows:
- Postgraduate study is demanding, and the successful completion of a recognised qualification brings personal satisfaction and real sense of achievement. This is particularly the case for doctoral students who will have undertaken a piece of original research and contributed to the advancement of knowledge in their chosen sphere
 - Individuals benefit from personal development and skills training, which is likely to comprise both specialist skills directly relevant to a future career, and transferrable skills such as management training, communications, leadership and team working. This training enhances the career prospects and employability of the individual in a wide range of roles. Anecdotal evidence suggests that such skills encourage a degree of adaptability, helping individuals to take advantage of rapid changes within the employment market
 - A job offer on graduation. A proportion of postgraduate students (both taught courses and doctorates and particularly in STEM subjects) undertake research projects and training in partnership with businesses and other employers. Evidence suggests that a number of successful students are offered jobs with these employers upon graduation
 - Enhanced employment prospects: data on first destinations show that only 3% of UK doctoral students and 4% of masters students (for whom data are available) were unemployed 6 months after graduation. Only 3% of UK doctoral students were considered to be in non-graduate roles, although this rises to 13% for those who have taken masters courses.

Benefits to HEIs

- 2.2 For Russell Group universities, a vibrant postgraduate community plays a crucial role in providing an attractive postgraduate experience for all students, as well as contributing to the intellectual vitality of the university. Students learn from each other as well as their supervisors and other researchers. Having sufficient resources and expertise to host a critical mass of postgraduate researchers facilitates this, as well as stimulating interdisciplinary debate and providing a cohort of students who can undertake transferrable skills training together.
- 2.3 In many disciplines, particularly STEM subjects, doctoral students are essential to the research endeavour, helping to deliver a department's research programme whilst studying and developing their skills. With proper training and support, doctoral students also play an important role in helping to teach undergraduates, including demonstrating practical skills and techniques. Doctoral students also act as role models and mentors for undergraduate students contemplating postgraduate study or a research career.
- 2.4 Doctoral students are the lifeblood of the next generation of university researchers. Doctoral study is a pre-requisite for virtually all academic positions within the university sector, and the brightest students will go on to lead the best research groups, programmes, and institutes in the UK and around the world.

Benefits to business

- 2.5 Businesses benefit from postgraduate provision in a variety of ways:
- Training of highly skilled individuals: in its widest sense, postgraduate education ensures that there is a continuing flow of highly trained and skilled graduates coming into the labour market. For some employers, postgraduates will bring the specialist skills informed by the latest research into the workplace. For those employers looking for research skills, doctoral graduates are often of the highest quality, with their confidence and skills honed by a 3 or 4 year programme of research undertaken in a challenging, stimulating and well-equipped environment
 - Research solutions to real business problems: postgraduate students who are co-funded by employers typically work on real problems faced by the company or organisation. The successful conclusion of this research project is likely to help the business improve its productivity or efficiency
 - Continuing professional development for the existing workforce, upping skills and bringing the latest research informed knowledge into the workplace

Benefits to the wider economy and society

- 2.6 Society and the wider economy benefit from generally having a more productive workforce with a range of higher skills, enabling the UK to compete successfully for business in a range of global markets. Postgraduates also sustain the future of higher education in the UK.
- 2.7 Postgraduate research students contribute to national economic growth, social well-being and wider cultural and social benefits via their contribution to the UK research endeavor. Some set up their own companies as a result their successful research projects.
- 2.8 Evidence suggests that postgraduates tend to have a strong sense of social responsibility and can be expected to contribute to society at large.

Number and balance of postgraduates

- 2.9 There is no optimal number of postgraduate students. There should be no limits on access to higher skills training, which provides life-enhancing opportunities for individuals. However, the practical demands of some subjects, which require access to specialist laboratories and facilities, means that there is a de facto cap on the number of students who can be educated at any one time. For research students specifically, numbers are also limited by the number of active researchers who are able to supervise students and provide them with the one-to-one support needed.
- 2.10 Despite the temptation to focus limited resources on “vocationally relevant” fields of study or to address the latest national or global challenge, it remains important to continue to invest a wide range of postgraduate provision – both in terms of subject area and mode of delivery. It is particularly important to maintain vitality in the arts, humanities and social sciences without diminishing the recognised importance of STEM subjects. Providing a breadth of educational opportunities as well as those which are obviously relevant to specific careers is desirable because it not possible to predict what knowledge, expertise or skills the UK might need in the future. Breadth of opportunity also helps to maintain cultural diversity within academia and society more broadly.

THEME 3: BUSINESS, EMPLOYMENT AND SKILLS

Postgraduates have the higher-level skills required in key sectors of the economy, in particular in the growth industries identified by the Government in New Industry, New Jobs. Many employers and professions require postgraduate qualifications for entry or offer postgraduate-level continued professional development.

- *Are postgraduates equipped with the right skills, experience and knowledge to progress in employment or further study and get significant value from the investment in their education?*
- *Do businesses in the UK make good use of the experience and skills that postgraduates can offer?*
- *How can postgraduate provision in the UK better respond to the needs of business, especially new and emerging industries?*

3.1 The answers to these questions will depend substantially on the kind of postgraduate education undertaken, the motivations of the student and their employment choices, the extent of employer understanding of the value of different kinds of postgraduate training, and their engagement with postgraduate programmes.

3.2 There is a need for longer-term data on postgraduate employment to understand better the relevance of postgraduate skills and experience and how best to deploy these.

3.3 As indicated below, Russell Group institutions have a strong track record of postgraduate provision delivered in collaboration with business, although the extent of employer engagement varies across and between disciplines. Experience demonstrates that successful collaborative provision is developed in partnership and takes account of the needs and priorities of employers as well as academic rigour. However, we recognise that generically there is a need for greater exchange of information between universities and employers about skills requirements. In some sectors (or individual organisations) which are regular and major employers of postgraduates it could be feasible to undertake periodic, rolling skills assessments.

Professional masters

3.4 Many professional Masters (PGCE, courses in health professions) require a period of professional practice as part of the degree course. RGUs work with a variety of employers to facilitate appropriate placements for such students.

Taught courses

3.5 Many Masters courses at Russell Group universities involve collaboration with businesses and other employers. This could be via:

- Joint curriculum and course development
- Site visits, seminars, lecturers and study days with businesses and employers
- Short-term work placements with employers
- Research projects conducted in a workplace setting (particularly for STEM and other practically based courses)

3.6 Feedback from employers suggests that most find student placements highly valuable, and many offer former placement students permanent positions. Examples of courses include:

- MSc in Applied Biomolecular Technology (Nottingham) – includes a compulsory 3 months placement in an appropriate work place
- MA in History, Film and Television (Birmingham) – offers research projects in the workplace with partners including the BBC and Maverick Productions

- MSc in Project and Enterprise Management (UCL & Warwick) – joint degree course developed in partnership with Network Rail, which also funds students taking the course

Research degrees

- 3.7 Russell Group institutions aim to develop PhD students who are capable of: analysing problems in depth; managing themselves effectively; working to exacting quality standards; have the ability to debate, propose and defend ideas; have the confidence to network with others; and have high-level specialist skills.
- 3.8 All Russell Group universities provide their doctoral students with transferrable skills as a core part of their degree programmes. This is likely to include communications skills, leadership, management and team working, as well an increasing focus on entrepreneurial skills, such as IP management, writing a business plan, raising finance, and marketing where this is appropriate to the degree programme and student aspirations. Evidence available from institutions and business suggests that this aspect of doctoral provision is highly valued by students and employers, and it is internationally recognised as a positive attribute of UK PhDs. The existence of ring-fenced funding for transferrable skills training (provided by the Research Councils) has been critical in developing these programmes and needs to be maintained.
- 3.9 Many Russell Group universities also provide opportunities for doctoral students to spend time working outside of the UK as part of their study programme. This could range from a short study visit or field work, to a year abroad or a fully joint or dual doctoral programme awarded by two or more institutions. As well as enhancing the overall research experience such opportunities can help to develop language skills, and the understanding required to work in multicultural and often multidisciplinary teams. These skills are highly prized by companies and other organisations which are looking to recruit researchers and managers who are capable of operating in a European or global working environment.
- 3.10 All of this training is in addition to the specialist research, technical, analytical, design and development skills that are an inherent part of doctoral programmes.
- 3.11 Companies and other employers are engaged in the development and delivery of doctoral programmes in Russell Group universities in a variety of ways, including:
- Joint development and/or funding of doctoral programmes including identification of key skills requirements and research areas to be addressed
 - Provision of sponsorships or bursaries for students
 - Site visits, seminars, lecturers and study days with businesses and employers
 - Co-supervised research projects focused on research challenges identified by the employer, conducted partly or wholly within a workplace setting (particularly for STEM and other practically based courses)
 - Provision of employer mentors for students
- 3.12 Such collaborations tend to be more strategic and based on long-term relationships between universities, companies and other organisations. Such collaborations rely on continuing investment in research facilities, personnel and new, excellent research. Examples include:
- EngD in Transport Infrastructure Knowledge & Systems (Southampton) - all students have an industrial mentor, who provides co-funding for the doctoral programme, career development support, and helps the student to identify and develop their research project. The research is undertaken in a commercial environment. The companies gain access to university facilities and access to leading academics, as well as the opportunity to develop potential future employees. PhD students also take Southampton MBA taught courses. Sponsoring companies range in size from multi-nationals to university spin-outs and SMEs. There have been around 50

industrial sponsors to date including: BOC, Airbus UK, Associated British Ports, British Maritime Technology Ltd, IBM, Jaguar Cars, Lloyds Register, E.ON

- EngD in Biopharmaceutical Process Development (Newcastle) - new, innovative 4 year programme run at the Biopharmaceutical Bioprocessing Technology Centre. It has been developed entirely in response to industry demand and places students with industry partners for 3.5 years following 6 months of training. This builds on existing skills with the latest scientific and engineering techniques and management skills to enable them to work at the interface between disciplines. This industry focus will enable students to understand how industry thinks, what industry is looking for, industrial timescales and challenges.
- 3.13 Employer engagement in doctoral provision varies widely. In some disciplines, such as engineering, computer sciences, biochemistry, architecture and design-based subjects, a degree of employer engagement is likely. Although there are some very successful examples of employer engagement in the arts and humanities and social sciences, this tends to be less common. There is potential to increase employer engagement in these traditional subject areas as well as expanding employer involvement more widely.
- 3.14 60% of PhDs supported by some form of Collaborative Award in Science & Engineering (CASE) studentship are at Russell Group Universities. The student is co-funded by a business, government or charitable partner, working on a research project defined by the partner organisation. Students are usually co-supervised by the CASE partner. However there is evidence in the life sciences and other subjects of difficulty in attracting appropriate students and filling CASE funded places. Lack of awareness of the scheme is one issue, and other issues around filling CASE awards should be explored.

Employer's use of postgraduate skills

- 3.15 First destination data for UK masters students show that 78% who have qualified from a Russell Group university are in employment 6 months after completion compared to 82% nationally, and 13% are pursuing further study compared to 8% nationally.
- 3.16 First destination data for doctoral students from Russell Group universities are comparable with national averages (87% are in employment 6 months after graduation, 13% are pursuing study and work; and 3% unemployed). However, a higher proportion of doctoral graduates from Russell Group universities take up scientific research careers (21%) compared those studying at other pre-1992 institutions (13%) or post-92 institutions (8%).
- 3.17 Whilst many employers have graduate recruitment programmes, most do not have specific entry routes for postgraduates. There are exceptions in the financial sector, and consulting company McKinsey has both masters and PhD professional entry schemes. Typically, employers tend to see postgraduate qualifications as an extension of undergraduate study rather than someone with higher-level technical and professional skills.
- 3.18 More dialogue is needed to help universities to better understand how PhD-level skills are perceived and valued in different employment sectors, and to help potential employers understand what a trained postdoc can offer. This applies to both established and emerging sectors. Such conversations are necessarily sector specific, and even employer specific in some cases. Upstream engagement and sharing more information about how employers induct and deploy new postgraduate recruits would be valuable.

Continuing professional development (CPD)

- 3.19 There is increasing interest in collaboration between business and universities to deliver taught postgraduate courses as part of on-going professional development for employees. Such courses can usually be delivered flexibly fitting around business and employee needs. Although business investment in CPD is likely to be squeezed in the current economic climate there is potential on both sides to develop this further by raising business' awareness of what universities can offer in the way of training, and by raising universities' ability to respond rapidly and flexibly to employer needs.

THEME 4: PARTICIPATION

The recent report Higher Ambitions states the Government's continuing commitment to widening participation in Higher Education. Although much is known about the make-up of the undergraduate population, more information is required about those undertaking postgraduate study.

- *What factors affect decisions of individuals as to whether or not to undertake postgraduate study?*
- *How important are alternative models of postgraduate provision (e.g. part-time, distance learning) in supporting expanding and widening participation?*

Factors affecting postgraduate study

- 4.1 Existing surveys such as the Postgraduate Taught Experience Survey (PTES) and the Postgraduate Research Experience Survey (PRES) give a broad indication of students' reasons for pursuing postgraduate study. These differ depending on the type of course.
- 4.2 Initial results from the 2009 PTES survey (which primarily captures UK students) showed that the main motivations for postgraduate taught study are: to progress in current career path (53%); to improve employment prospects (50%); personal interest (45%); to progress to a higher level qualification (32%); to change career (18%); as a requirement for a specific profession (16%); to meet requirements of current job (9%); other (3%). The main reasons for choice of institution given were: overall reputation (39%); location (36%); reputation in subject of study (33%); flexible delivery (26%); reputation of department (23%). Undertaking a taught course in order to retrain or enhance specific skills is a particularly strong driver in the current economic climate. Part-time and/or on-line delivery is particularly important for taught courses aimed at professional development.
- 4.3 By comparison results from the 2009 PRES survey show that UK students taking postdoctoral research courses primarily chose their doctorate because of their interest in the subject. The most important motivating factor for international students was to improve their prospects of a career in academia.
- 4.4 Unpublished research undertaken by Paul Wakeling (University of York) about the socio-economic background of postgraduate students and their motivations for study shows that:
 - A smaller proportion of postgraduate students went to an independent school compared to undergraduate level
 - Financial considerations do not appear to be a major factor in deciding to pursue postgraduate study; there are negligible differences in the socio-economic backgrounds of self-funded and externally funded postgraduate students
 - Information about where students took their undergraduate degree shows that there is considerable movement within the HE sector. Between 35-45% of UK postgraduate students at the three Russell Group universities sampled in the research had previously studied at a non-Russell Group institution, with 14 -15% having taken their undergraduate degree at a post-92 institution
- 4.5 There has been some concern expressed that the introduction of variable tuition fees at undergraduate level could have a harmful effect on the recruitment of home and EU students to postgraduate study. At present, evidence about the impact of tuition fees on progression to postgraduate study is limited and inconclusive and needs to be viewed in the light of the continuing rise in postgraduate admissions. Further work to explore a range of different postgraduate educational pathways would be valuable. For example, distinctions should be drawn between recent undergraduates wishing to progress to a masters and then PhD in order to access a professional research

career, and those who are already highly skilled and in employment and are pursuing postdoctoral qualifications in order to enhance their career prospects or to retrain.

- 4.6 Where students may have doubts about progression from undergraduate to postgraduate study, experience in Russell Group institutions has shown that postgraduate mentoring of final year undergraduates is a good way of encouraging them to think seriously about further study and a future career in research.

Part-time provision

- 4.7 Part-time study has considerable appeal for many students, particularly those who wish to combine work, other responsibilities and study.
- 4.8 There are practical challenges to organising and managing part-time provision and it is generally easier to organise and deliver taught courses on a part-time basis. Data published by UUK show 53% of students on postgraduate taught courses are studying part-time compared to around 30% of doctoral programmes. Most Russell Group institutions offer part-time doctoral programmes. For example, Kings College London offers all of its 75 PhD programmes on either a full or part-time basis, including a wide range of STEM subjects.

Distance and distributed learning

- 4.9 Distance and online learning provides UK and overseas students with flexible and accessible methods for pursuing many kinds of postgraduate education and UK universities have expanded their provision considerably in recent years. There are, however, limitations to the kind of provision that can be offered on this basis, as some STEM courses require clinical or laboratory training which cannot be provided remotely. Generally Russell Group universities combine distance or distributed learning provision at postgraduate level with intensive face-to-face summer schools and visits. In general, taught courses tend to lend themselves better this mode of delivery.
- 4.10 For example, the University of Liverpool has a partnership with Laureate Online Education which provides entirely online taught masters courses in management and business studies, IT, law, and public health. Liverpool has attracted large numbers of international as well as home students, the majority of whom study part-time whilst working. <http://www.uol.ohecampus.com/>
- 4.11 Kings College London offers distance and e-learning masters programmes in law, dentistry and war studies. The innovative dentistry programme provides training for some 200 students across 40 countries, and enables practitioners to work and improve their skills at the same time. Learning, tutorials and feedback are delivered on-line, coupled with an annual, intensive face-to-face programme delivered in London or India. <http://www.kcl.ac.uk/schools/dentistry/pg/distance/>
- 4.12 Professional doctorate programmes can also lend themselves to part-time (or distance learning) delivery. However, as indicated above, questions remain about the international validity of these qualifications.
- 4.13 There are a small number of research-based doctoral programmes which are successfully delivered on a largely distance learning basis e.g. the University of Manchester offers a PhD in nursing largely on a distributed basis. Students are required to attend an annual, one week intensive study programme but the rest of the time receive instruction and support via virtual seminars and tutorials. Students communicate with their supervisor through a variety of means and have access to on-line collaboration space and electronic library resources. <http://www.nursing.manchester.ac.uk/postgraduate/research/onlinesupport/>

- 4.14 Aside from practical limitations in some disciplines, one of the main barriers to expanding distance and online learning is the start-up costs associated with these courses. For example, Kings College London estimates that the start up costs for an e-learning masters course exceeds £125k.
- 4.15 Whilst flexible provision enables students to organise and balance their studies, work and other commitments, there also needs to be careful control of the quality of such programmes to maintain the standards of excellent associated with UK taught and research postgraduate provision.

THEME 5: FEES AND FUNDING

The findings of this review will inform the Independent Review of Higher Education Funding and Student Finance, which will consider the affordability of the current system and the link between financial support and the goal of widening participation.

- *Is the current model of funding postgraduate provision sustainable, and does it offer the best possible value for money?*
- *Are there models of providing postgraduate financial support that would be more efficient and productive?*
- *Are the current sources of financial support for postgraduate students widely understood by potential and existing students*

5.1 The current system of funding for postgraduate provision is fragmented and can appear impenetrable to prospective students and funding partners. Putting funding for postgraduate provision on a more sustainable footing requires a partnership approach involving the HE sector, government and public, private and charitable funders. Russell Group universities provide substantial support in meeting shortfalls in cost of postgraduate provision (especially doctoral provision) and by way of bursaries and scholarships for talented students. However, continuing cuts to public provision and lack of access to alternative funding sources are undercutting an already unsustainable system.

Taught courses

5.2 There is a buoyant market for postgraduate taught provision. It is desirable that this market continues to operate freely and that government support underpins specific higher-skills in selected areas (e.g. teaching and social work) which are clearly of high importance to the nation.

5.3 However, some consideration is required of the impact of the reduction in public funding available for taught courses, with the loss of funding some Research Councils' funding for masters courses and the withdrawal of support for Equivalent or Lower Qualifications.

5.4 The Research Councils have largely withdrawn from funding 1 year masters courses which in the past would have provided advanced skills training, often, but not always for those employed in STEM-orientated professions. Whilst it is not necessarily the Research Councils' role to fund this kind of postgraduate support, the arguments should be considered for a degree of public support in selected areas of national importance and/or for access to loans for these students.

5.5 Neither UK nor EU postgraduate students can access tuition fee loans to cover the cost of course fees. Extending the student support system to provide loans for postgraduate students would require a significant up-front increase in government lending. Options should be explored as part of the wider independent review of student finance.

5.6 The withdrawal of funding for Equivalent or Lower Qualifications presents a barrier to those looking to retrain or change careers to take advantage of new employment opportunities. Whilst the exemptions for strategic and vulnerable subjects are necessary, this should be reviewed regularly to take account of changing national needs and priorities, and ambiguities about the treatment of some combined courses should be addressed.

Research degrees

5.7 Studentship funding provided by the Research Councils enables leading universities to fund the best students. This model works well, and enables the UK to invest in and

maintain strategically important subjects, whilst responding to new research challenges and emerging academic fields. Russell Group universities welcome the doctoral training centre and other block grant funding for doctoral programmes provided by the Research Councils. This is a cost efficient and effective means of supporting postgraduate research. A major strength of this approach is the flexibility institutions have in identifying strategic areas of research and selecting students. The range of funding available via different kinds of doctoral training centres, CASE awards and project-linked PhDs provides a welcome diversity, enabling institutions to deploy funding flexibly to meet the circumstances and preferences of individual students and other collaborative partners. Where institutions wish to develop collaborative doctoral provision involving two or more universities this should be supported, but collaboration should not be mandated for its own sake. Research Council funding should be sustained at current levels and ideally increased. Further development of partnership funding for doctoral programmes would be valuable.

- 5.8 The main drawback to current Research Council funding is the limitations on funding EU and other overseas students. In particular, Research Councils will only fund the tuition fees of students from the European Union, but not their maintenance costs. Russell Group institutions are losing out on attracting talented students from elsewhere in Europe and overall this policy hampers the UK's participation in the European Higher Education Area. The review should explore the options for enabling Research Councils to provide comparable funding for the very best EU postgraduate research students.
- 5.9 For a variety of reasons (e.g. compatibility with Bologna and international norms, delivery of transferrable skills training, inclusion of workplace secondments) there has been a gradual increase in the duration of a PhD in many STEM subjects to 4 years. Whilst Research Council doctoral training accounts provide the flexibility to support this, funding for this 4 year model should be explicit rather than implicit and the longer term funding implications need to be addressed.
- 5.10 Whilst it offers good value for money, we do not believe that the current model of funding postgraduate provision is sustainable. Particular concerns include:
- **Under-funding of laboratory-based doctorates:** laboratory-based disciplines are dependent on PhD students to help deliver their research at a world-leading level in a way that is less common in non-laboratory-based subjects. The 2005 JM Consulting study on the cost of supervising and training postgraduate research students showed a substantial short-fall between the cost and the available funding for laboratory-based doctoral programmes in particular. This situation has not improved. Russell Group universities estimate that the cost of supporting UK doctoral students in laboratory-based subjects results in a £15k-20k shortfall per doctoral student per annum. Across a typical RGU this amounts to £5-10M per annum. This is not financially sustainable, and also undermines attempts to build strong teams of postgraduate researchers. The review should look at alternative funding models. One solution would be to provide enhanced support via QR to research-intensive universities.
 - **Research Council funding for transferrable skills training:** The Research Councils provide ring-fenced funding to HEIs to support professional skills training for doctoral students and early career researchers ("Roberts" funding). This funding provides an incentive to articulate and regularly review skills requirements and has been used to employ professionals to co-ordinate and deliver skills training to cohorts of students across graduate schools. The increased emphasis on transferrable skills has been well-received by students and employers, and students have been shown to be demonstrably more able (Alpey & Walsh 2008).

There is concern that this funding may be terminated after 2010-11 or the ring-fence lost. Given the extent to which Russell Group universities already subsidise

laboratory-based doctoral programmes and fund scholarships for overseas research students, they cannot also subsidise transferrable skills training at current levels. Given that demand for these skills is likely to increase, it is important that the Government provides an explicit commitment to continued investment in transferrable skills. The loss of this ring-fenced funding could result in loss of focus and loss of effective, co-ordinated skills provision.

Overseas (non-EU) students

- 5.11 There are specific concerns around the funding available for overseas students. Generally, UK postgraduate provision is expensive for overseas (non-EU students), particularly with trends in the UK towards longer taught courses and doctoral programmes. There is increasing competition from elsewhere in Europe with courses now being delivered in English more cheaply than in the UK across many disciplines. Many of such courses are offered without tuition fees.
- 5.12 The situation is particularly acute in relation to postdoctoral research students. These are the kinds of students that Russell Group institutions wish to attract as they not only make a substantial contribution to the research of their host university, but forge relationships with UK researchers which are the basis of successful future collaborations. As the submission to the review from the University of Oxford points out, the funding packages offered by leading universities in UK cannot compete with private institutions in the US, or increasingly European institutions, and insufficient funding is the primary reason why overseas students do not take up places for postgraduate research degrees at Oxford.
- 5.13 In recent years there has been a significant loss of public funding to support the most talented overseas researchers who wish to undertake a postgraduate research degree in the UK. The former Overseas Research Student Award Scheme (ORSAS) in England, Wales and Northern Ireland, which met the difference between international and home student tuition fees, was a significant attractant for leading overseas postgraduate research students thinking about study in the UK. Likewise, the FCO cut its provision for its Chevening scholarship programme. Although Russell Group institutions have chosen to divert funding from other activities to provide their own scholarships for the best international doctoral students, overall the loss of this funding and lack of other funding sources hampers the UK's ability to attract the best talent to doctoral programmes in the UK.
- 5.14 Whilst Russell Group universities provide a range of scholarships for international students and there are a number of national scholarship schemes (such as Commonwealth Scholarships, Marshall Scholarships and those provided by government departments), the lack of a coherent policy and sources of support for overseas students remain barriers to increasing take-up.

Information about sources of financial support

- 5.15 Information about sources of financial support is available from the websites of all Russell Group universities, and via gateway websites such as the Russell Group and Vitae. However, Russell Group universities recognise that more could be done to publicise information about the costs of postgraduate study and the benefits to individuals as well as the sources of funding and support available, and are working towards making this information more easily visible to potential students.

THEME 6: THE STUDENT EXPERIENCE

The student experience is vitally important, and cuts across each of the other themes:

- *What are the key elements of a high quality PG student experience?*
- *Are there innovative delivery models or mechanisms that benefit the student experience, which could be applied more widely?*

6.1 The key elements of the postgraduate experience will vary substantially depending on the kind of course or training undertaken. In general, the key features of the development of higher skills will include independent and critical thinking, coupled with excellent training in specific and generic transferrable skills, with the ability to apply these widely.

Research degrees

6.2 Elements of a high-quality research doctoral programme include:

- Identification of a demanding, stimulating and novel research project and opportunities to publish their own research
- Supervision by a leading expert, active in research in an appropriate field, in a department with other researchers of an internationally defined calibre
- High-quality subject-specific training, reflecting the latest research developments, techniques and methodologies
- High-quality transferrable skills training, appropriate to future career aspirations
- Access to a modern, well-equipped research laboratory, equipment, collections, data and other resources
- A critical mass of other postgraduate students
- Opportunities for interdisciplinary collaboration with researchers and other postgraduate students
- Opportunities for undertaking research and/or training in a relevant workplace environment
- Opportunities for a period of study or training outside of the UK
- The ability of the university to provide a stimulating and supportive environment for a diverse postgraduate community

6.3 This is reflected in the QAA code of practice on the postgraduate research student experience. It is not clear that all UK institutions have the capacity to offer rewarding doctoral programmes of this kind. A debate is needed about the future distribution of doctoral provision.

6.4 Offering postgraduate researchers the opportunity to have a mentor is a positive way of providing advice and support to alleviate any feelings of isolation or ambiguities in status, as well as providing advice about research challenges and future career opportunities.

6.5 The introduction of a number of doctoral training centre models by several Research Councils has been valuable in encouraging universities to do more to integrate advanced teaching and research, enhance team working, provide opportunities to work across disciplinary boundaries, and promote collaboration between institutions.

6.6 We are aware that some Research Councils discourage doctoral students from taking on responsibilities for teaching undergraduates. There is evidence that this discourages some students and prevents others from gaining useful teaching skills. This may put students seeking employment in academia at a disadvantage from other postgraduates who are able to offer practical teaching experience.

Taught courses

6.7 Elements of a high-quality research doctoral programme include:

- Stimulating and effective teaching
- Opportunities and resources for independent scholarship and learning
- Access to excellent teaching facilities, libraries, collections and other resources, such as IT

Part-time and distance provision

- 6.8 Russell Group institutions host summer schools for part-time and/or distance learning students in some areas of postgraduate provision. As well as facilitating direct contact between students and supervisors or tutors, summer schools help to build a sense of community amongst members of student cohorts.

International students

- 6.9 International students act as ambassadors for the quality of UK postgraduate provision, and help to ensure future generations of students choose the UK. It is important that universities have effective infrastructure and support services for overseas postgraduate students to help them adapt to life in the UK, as well as getting the most out of their chosen course of study. Many Russell Group institutions offer pre-study induction courses for overseas students to help them adjust to the mode and style of learning employed in UK institutions, which may differ from the student's earlier experience.