Programme Analysis of HEFCE's Postgraduate Support Scheme

FINAL REPORT
TO ESRC AND HEFCE

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CONTENTS

EXECUTIVE SUMMARY

This report analyses, evaluates and summarises findings from the projects in the Higher Education Funding Council for England (HEFCE)'s Postgraduate Support Scheme (PSS). This £25M initiative involved 40 higher education institutions in 20 projects to address key objectives in taught postgraduate education. Match funding from institutions and elsewhere is estimated to have increased the total expenditure by approximately 50%. Around 2,000 students were supported through the programme. It is the largest ever intervention in postgraduate education in the UK. Projects ran from January 2014 to June 2015, with some aspects continuing on into 2016. The broad aim of the scheme has been to ensure taught postgraduate study is accessible and that it supports national priorities in supplying highly skilled individuals for industry, the professions, public services and research.

Project themes (Section 2)

The analysis discerns **two separate approaches** at work in PSS. There is a set of projects focusing on **certain kinds of student**, with less attention paid to their type of programme; and a set targeting **certain kinds of programme**, with less concern about the type of student recruited. The former are broadly concerned with widening participation; the latter with skills, industrial strategy and employability. Similarly, PSS **activities can be divided** crudely **into those requiring direct resources** – e.g. funding of students and new programmes – **and those which are more about policy and practice**, such as student mentoring schemes and postgraduate taught (PGT) widening participation work.

PSS provides **evidence of latent and frustrated demand** for PGT study among graduates, especially the disadvantaged. It also gives **proof-of-concept for various supply-side innovations** which bring together universities and employers, but also highlights the **risks and costs of postgraduate innovation**. In contrast however, the projects funded placed little emphasis on part-time provision and on information, advice and guidance.

A clear message is the need for **greater visibility and co-ordination of taught postgraduate education in universities** (see Section 11). This is linked to **concerns about the future sustainability of PSS initiatives** and activities. PSS has generated a certain momentum and 'buzz' around PGT education but there are signs that much of this will wane once funding support and political attention declines. Government and HEFCE will need to maintain this attention by identifying mechanisms to encourage and incentivise institutions to develop all aspects of their PGT provision.

Postgraduate funding (Sections 5 and 9)

There is a **consistent message that providing funding to students for fees and living costs has been critical** to projects' success. Nearly all scholarships were awarded across the different projects, with some having substantial unmet demand. There were consistent reports from many, but not all, students that they **would not have been able to enrol without the offer of a scholarship**. With PSS or similar funding removed, these types of students will continue to face barriers to progression. Within the current mixed economy of PGT student funding, this represents a significant gap.

More generous scholarships have tended to be the most popular, but some smaller awards have also met with considerable success. However, several projects reported some **disadvantaged students being unable to enrol** even with quite large partial scholarship offers as they were **unable to make up the difference** in fees and living costs. Some students were able to use scholarships to 'top up' other sources and reported being better able to concentrate on their studies as a result. There is no clear consensus on the optimal level of funding to increase participation.

General scholarships have proven considerably more attractive to applicants than those in specialist areas. **Simple schemes** backed up with prominent but fairly traditional publicity seem to have had the **highest demand**. There is only marginal evidence that students have 'shopped around' for the best PSS scholarship.

PSS suggests that only Government support can enable a step shift in 'home' PGT enrolments. Several **alternative postgraduate finance** developments are considered. While a few of the PSS schemes have the potential to contribute to taught postgraduate funding through different third party loan schemes, they **will not provide a holistic solution** for the sector. Effectively, the choice is between the state and the status quo.

Employability (Section 7)

The emerging **partnership model** (employer-university-student) seen in PSS projects is described in its various aspects (curriculum, finance, knowledge transfer). There is evidence of **appetite for partnership** among employers, coupled with some willingness to invest, but success in this regard has not been uniform across all areas and projects. Key challenges here are scale and sustainability.

I make the case that there is substantial overlap between the **placement-based masters model** seen in several PSS projects and the Government's proposed **Level 7**

apprenticeships. There is scope for integration here if what are essentially superficial differences of language and structure can be overcome.

Widening participation (Section 4)

Drawing on discussion with PSS projects, consideration of their experiences in the use of various potential measures, review of relevant research findings and a process of deduction, I **propose a general model for considering PGT widening participation.** This **distinguishes between financial and non-financial aspects** of barriers to participation. The appropriate strategies for PGT widening participation will vary according to the desired outcomes.

Financial aspects should be addressed by **targeting funding according to need**, which in turn requires directly measuring students' financial circumstances. Here some measure of whether students are dependent or independent is required. The case is made for a **centralised financial assessment system**.

Non-financial considerations can **draw on existing measures of educational disadvantage** already in use for targeting non-financial interventions. They can be used to target activity such as information, advice and guidance; changes to institutional practice; and taster sessions. This aspect of PGT widening participation emerges as both important and underdeveloped– it is not simply about funding. There is considerable potential for cost-effective intervention. I make **recommendations for data about PGT applicants and entrants** which institutions (and HEFCE via the Higher Education Statistics Agency (HESA)) should routinely collect *and analyse*.

Competition between institutions is seen as an **impediment to effective widening participation** at postgraduate level. There are also **potential unintended consequences** for credential and fee inflation, and for social mobility, from any general (non-means-tested) postgraduate funding scheme.

Academic models and innovation (Section 8)

PSS has led to the bottom-up development of **novel models for taught postgraduate provision**. These attempt to address perceived shortcomings of traditional PGT provision and/or needs identified by employers in diverse sectors (including engineering, international business, university research, entrepreneurship and small and medium-sized enterprises (SMEs)). Two developments are highlighted in particular. First is the move to use the masters degree to **convert specialists to generalists**, broadening out rather than narrowing knowledge and skills. The second

is the changes to programme design to open up **new multidisciplinary possibilities to fit the modern workplace**.

While these have potential to be more widely adopted, **PSS shows there are significant barriers to innovation**. It is time and resource intensive – and hence expensive and risky. To some extent potential students and employers can be risk averse in relation to new programmes. In a challenging funding environment and without subsidy and other incentives, the academic dividend for PGT innovation is likely to be insufficient to convince institutions to invest, especially when demand for more traditional provision from international students remains strong.

The **anomalous position of four-year undergraduate integrated masters** in relation to postgraduate masters is highlighted and discussed.

Recruitment and admission (Section 10)

The PSS experience to date further confirms there remains **little effective understanding of the postgraduate application process**. Demand has varied across PSS but it is difficult to determine at this juncture how this compares to general UK application levels within PSS institutions and in non-PSS institutions. The general trend continues to give cause for concern. The **case for a national PGT application system** is reviewed.

Challenges for evaluation (Section 3)

The scale, scope and design of PSS **poses challenges for evaluation**. Some aspects are ongoing and cannot yet be fully evaluated. Trend analysis is not possible since the interventions involve a single year only. PSS projects funded in 2014/15 do not articulate closely with the quite different round of funding in 2015/16. The projects do not involve experimental interventions or randomised control trials, confounding separation of cause and effect. In some cases the evidence for a positive effect of 'softer' interventions tended to be platitudinous. All projects raised difficulties with the timing of PSS impacting on recruitment, design and implementation of new programmes and the development of new external partnerships; with longer lead-in times there could have been different outcomes. The programme generated a number of linked research studies and surveys. Although there is some consistency in findings, different questions, sampling strategies and analytical approaches may limit overall confidence in the conclusions. That said, **PSS was intended as a pilot programme**. Seeing it as a major first step rather than the final word in resolving difficulties for taught postgraduate education can mitigate some of these shortcomings. Were the programme to be run again, directing funding to larger, more tightly-focused projects would help subsequent evaluation.

RECOMMENDATIONS

Ref	Recommendation	Paragraph
	For HEFCE and Government	
	Funding	
R1	Graduates without the financial resources to fund postgraduate study cannot participate. Only the state can fill this funding gap. It should do so, targeting resources on those in the greatest financial need.	4.35, 5.21, 9.6
R2	For subjects of the highest strategic national importance, funding support is needed to ensure the future supply of UK-domiciled PGT students, regardless of financial need. A small stream of continuing funding for students is required to sustain such areas.	5.40
R3	There should continue to be investigation and encouragement of alternative sources of PGT funding. It should be recognised that this is highly unlikely to comprise a major element of the PGT funding system, but it could represent a useful contribution.	9.5
R4	On the basis of evidence from PSS, there remains uncertainty about the optimal amount of funding support to encourage PGT participation in given conditions. In these circumstances, settling on an agreed figure and evaluating its effect *post hoc* is a reasonable approach.	5.13
R5	Any financial assessment process and criteria for determining students' means and eligibility should be centralised. This will help to avoid inconsistency, error and scope for fraud and to maximise efficiency and transparency.	5.35
R6	To support financial assessment, eligibility criteria are required. These should include rules on when a PGT student should be considered 'independent'. This should draw on empirical evidence, but it is not simply a technical decision.	4.21 – 4.23
	Innovation and employability	
R7	There should be concerted scrutiny of the scope for a more flexible approach to combine funding and objectives from PSS and the Level 7 apprenticeships initiatives. There is an overlap between these agendas and synergies risk being missed.	7.30

Ref	Recommendation	Paragraph
Widening participation		
R8	PGT widening participation involves (i) funding; and (ii) a set of other activities. Both are critical. Funding support should be based on assessed financial need only and is effective mainly at the point of enrolment. Funding rules should be as simple as possible. Other interventions should draw on a broader range of factors and are crucial in getting graduates to the point of enrolment.	6.6, 6.13
Other/overarching issues		
R9	There is a strong case to act on securing the future of PGT participation, but no compelling case to achieve a definitive solution. An evolutionary approach, involving intervention and review, is recommended.	3.13
For HEFCE		
Funding		
R10	Close monitoring of PGT fee levels for UK/EU students is required, particularly if new sources of public funding are introduced.	5.30
R11	HEFCE should investigate the potential effect of the withdrawal of Price Group C funding for PGT students on enrolments in specialist art and design institutions.	Fn 18
Innovation and employability		
R12	The momentum generated by PSS needs to be sustained. This means providing continued incentives for institutions to undertake innovation and employability work. Innovation is expensive and risky in this area and would benefit from some public support. A framework for monitoring of PGT participation is needed.	5.41, 8.10
R13	HEFCE should compare the outcomes of PSS in respect of PGT innovation with the outcomes of Phase 2 of the i-MAP project.	8.9
Widening participation		
R14	Institutions should be strongly encouraged and incentivised to undertake PGT widening participation, preferably collaboratively.	4.13
R15	A specified set of metrics about PGT applicants/students should be collected by institutions and reported to HESA. Technical assistance with data recording should be investigated.	4.31, 4.36, 4.38 – 4.40

Ref	Recommendation	Paragraph
R16	There should be consideration of PGT admissions practices to ensure they are fair. HEFCE should encourage debate about the creation of a national application system for PGT study.	4.7, 4.9, 10.22
	Other/overarching issues	
R17	Experience with the PSS programme points to a need for any future similar programme to carefully consider timing, focus, scale and external advice and input in design and evaluation.	3.11
R18	There should be a review of integrated masters degrees and their link to PGT policy.	8.28
R19	New activity is needed to investigate and encourage part-time PGT study, since this has been underemphasised in PSS.	10.7
	For higher education institutions	
	Widening participation	
R20	Institutions need to ensure that, as well as undertaking PGT widening participation work, they also ensure that the logistics of PGT participation are addressed through timetabling and other aspects of programme design (so called 'hygiene factors').	4.16
	Other/overarching issues	
R21	Institutions should review the support they provide for PGT students and how they organise relevant services to meet PGT needs (e.g. careers, admissions, student support etc).	11.3
	For ESRC and HEFCE	
	Further research	
R22	Research is needed on understanding PGT retention and success, including the outcomes of PGT study.	4.17, 6.3
R23	Research is needed on PGT sensitivity to tuition fee pricing and the economic geography of PGT.	2.11
R24	Closer investigation is needed of the relationship between household residual income, as assessed by the Student Loans Company (SLC), and various indicators of disadvantage.	5.34

PART A
Background, scope and shape of the Postgraduate Support Scheme

1 INTRODUCTION

1.1 This is the final report (September 2015) of the programme analysis of the Higher Education Funding Council for England (HEFCE)'s Postgraduate Support Scheme (PSS). The analysis has been commissioned by the Economic and Social Research Council (ESRC) and HEFCE to:

> evaluate the range of projects chosen, the characteristics of each project, the linkages between projects, establish knowledge of the gaps where there are no current projects being undertaken, and the contribution of the projects to the broader objectives of the scheme. […It] should both explore the portfolio for emergent themes across projects and investigate particular issues, such as what linkages can be drawn across the portfolio funded within the UK, what gaps can be identified, and whether the portfolio suggests any further areas for investigation or support. If support is indicated, the researcher could usefully provide indications of stakeholders which could provide such support.
>
> (PSS evaluation project specification, Paragraphs 1 and 13)

1.2 This report updates, revises and supersedes earlier preliminary (June 2014) and interim (October 2014) reports. The earlier reports suggested emerging themes and issues from the portfolio of projects as they progressed from design to implementation. The interim report began to draw out cross-cutting lessons and findings from the programme and made a series of recommendations.

1.3 PSS projects commenced in January 2014, with most continuing to the end of June 2015. Some projects will continue into 2016 as, for example, part-time students complete their programmes. This final report is able to review and synthesise findings across most of the programme lifecycle, including inception, recruitment of students, the experience of PSS programmes and students across the academic year and so on. For most of the projects it comes slightly too early to systematically consider students' final outcomes. It should however be possible to take a view on the prospects for PSS project initiatives to continue into future years.

1.4 The programme supported 20 projects, involving 40 institutions in total. HEFCE provided funding totalling £25M, an amount augmented by approximately 50% through institutional and third-party match funding. The majority of public funds were used directly to support PGT students.[1] Around 2,000 students were supported through PSS.

1.5 Two new major postgraduate funding developments emerged during the PSS programme. First, HEFCE and the Government established a second round of PSS

[1] This assessment is based on initial project awards and projections. It is not based on any kind of financial audit.

funding (henceforth PSS2) for 2015/16. This comprised £50M to fund 10,000 scholarships, each worth £10,000, for PGT masters study. The awards are 50% match-funded by institutions and were formulaically allocated (HEFCE circular letter 32/2014 refers). Only students graduating in 2015 who were subject to higher undergraduate tuition fees from 2012/13 are eligible. Thus PSS2 differs substantially in its remit from the original PSS projects.

1.6 In the 2014 Autumn Statement, the Government announced proposals for a loan scheme for PGT masters funding in England (Department for Business, Innovation and Skills (BIS), 2015). These proposals were reiterated in the 2015 Budget and at the time of writing, the Government's response to its consultation process on the loan proposals is awaited. Income contingent loans of up to £10,000 are proposed, tenable at English higher education institutions for a PGT masters degree. Proposed eligibility is restricted to first-time masters students who are UK/EU-domiciled and under the age of 30. Loans will be repayable once a graduate reaches a certain earnings threshold and will be repaid concurrently with loans from undergraduate study. In the Budget the Government also introduced proposals for loans of up to £25,000 for research degree study.

1.7 The report is arranged in four parts. This first section (A) introduces the PSS programme, outlines and classifies its main features and considers the challenges it poses for evaluation. Section B focuses on PGT students and what we have learned about the barriers and incentives they encounter. It proposes a framework for considering widening participation at PGT level, dividing this between financial and non-financial factors. There follows, in Section C, a review of the main findings about innovation in form and purpose of PGT programmes as seen in PSS. The final section (D) considers processes which support PGT education both within and external to higher education institutions.

KEY POINTS

- This is the final report of the PSS programme analysis and evaluation.
- The programme ran from January 2014 to June 2015, supporting 20 projects in 40 institutions with funding of £25M. This funding was augmented by approximately 50% by institutional and third-party match funding.
- The majority of public funding was targeted to direct support for PGT students.

- There were two major developments during the project: the announcement of £50M further PSS funding for 2015/16 and a postgraduate loan scheme for 2016/17.

2 A THEMATIC OVERVIEW OF THE POSTGRADUATE SUPPORT SCHEME

Major themes

2.1 In its call for applications to PSS, HEFCE set out two overarching aims for the scheme. It sought:

> to ensure that taught postgraduate education:
>
> - is accessible to the most capable students regardless of their background, thereby maximising its contribution to social mobility and the diversity of the professions, including the higher education profession
>
> - continues to be a successful and sustainable sector at the heart of higher education teaching, research and knowledge exchange, thereby supplying the highest level of skills and knowledge to industry, the professions and public services, and attracting students from around the world.
>
> (HEFCE CL18/2013, p. 2)

2.2 Each of the funded projects had the aim of attracting students to PGT study who would not otherwise have participated (see Table 2.1 below). While there is an emphasis in this programme analysis report on the findings emerging from PSS more broadly, clearly the emphasis of PSS itself was on direct support for PGT students. This support represented the greater part of HEFCE funding through PSS. As will become clear, PSS resulted in the enrolment of many students who would not otherwise have begun a PGT programme and in the creation of new programmes and approaches. It is not possible in this report to reproduce testimonies from PSS students and others closely involved with projects (e.g. employers). However presentations and reports from a number of the projects do contain such details.

2.3 The two stated aims of PSS – to widen access to postgraduate taught (PGT) education and to support an industrial strategy emphasising high-level skills – are well represented in the funded projects. The two aims are not necessarily mutually exclusive. It is possible in principle to widen access whilst at the same time addressing skills shortages in particular sectors. However, projects tended to be more successful where they focused on one main aim. Thus the most successful schemes aimed at widening access have not consistently also recruited students in strategically important and vulnerable areas; nor have those addressed at particular skills shortages or knowledge transfer necessarily recruited students from underrepresented backgrounds.

2.4 Accordingly, the two aims stated for the programme in Paragraph 2.1 above require distinct policy approaches. The first focuses on supporting particular kinds of *students* on any PGT programme; the second focuses on supporting particular *programmes* for any kind of (fundable) student.

2.5 PSS provides evidence of **latent and/or frustrated demand** for PGT for underrepresented groups (among 'home' students). There was substantial over-subscription for scholarships targeted at students defined as disadvantaged using a range of measures, although demand varies somewhat according to institution and field of study (see Section 10 for further details). There were also clear indications of **barriers to progression** into postgraduate study, **especially financial** ones; these are considered in Sections 4, 5 and 6.

2.6 Several PSS projects have also demonstrated **proof of concept for supply-side innovation**, particularly to encourage the development of advanced skills and knowledge transfer in industrial strategy priority areas.

2.7 A third over-arching theme emerging from the scheme pertains to the **visibility and profile** of PGT. This applies both to the place of PGT within the sector and within individual institutions especially; but also to the understanding of PGT among employers (and to some extent, the Government) and their engagement with it. Here PSS has acted as a catalyst for funded institutions to reconsider many aspects of their approach to PGT. This has ranged from reviewing the purpose of programme and curriculum development, through administrative processes for PGT students, to careers advice, co-ordination of scholarships and analysis of data about the PGT student and applicant body. The breadth and depth of reflection has varied across the projects, with some institutions showing a thoroughgoing strategic commitment to their project and others adopting what appears to be a more superficial approach. However, partly this reflected differences in institutions' starting position as I observed noticeable shifts across time even with projects with a lower level of whole-institution commitment.

2.8 A challenge for HEFCE and for Government is to ensure findings from projects are shared within and across institutions and that the momentum developed by projects is not lost as the programme concludes. Projects have indicated in their reports to HEFCE that many of their activities and initiatives which have depended on PSS funding will not be able to continue once this ceases. However, there are a range of new ideas and approaches which are not necessarily dependent on significant external funding sources and which could be retained and or more widely adopted. These include:

- Academic innovations

- New approaches to providing information, advice and guidance for PGT study
- Strategies for supporting PGT students before, during and after their studies such as peer mentoring
- New relationships with employers, especially involvement in curriculum design and through student placements
- New alternative sources of funding for PGT students
- Changes to PGT culture and practice to incorporate consideration of widening participation, equity and diversity issues.

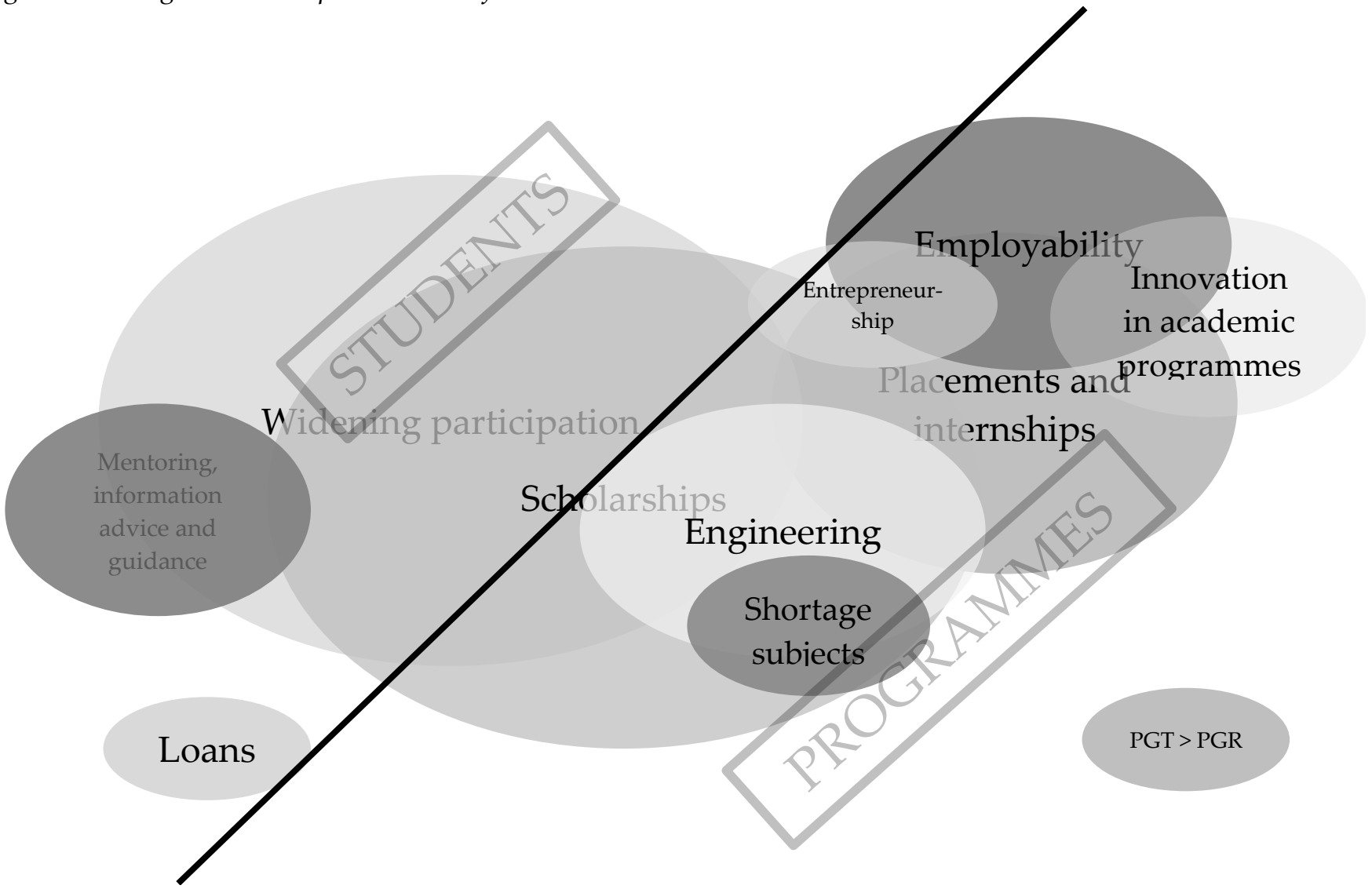
2.9 PSS has demonstrated that the sector highly values and is committed to the future of PGT provision, including the participation of UK students. There is an appetite and enthusiasm for developments in this area within English higher education institutions and given the right conditions and support, a capacity for innovation and creativity. At the same time, institutions and their staff face a sometimes bewildering set of demands and competing priorities and, like any organisation, must be mindful of financial constraints. This can mean – indeed in the past certainly *has* meant – that PGT study can be neglected as other priorities are emphasised by senior managers and governing bodies. To sustain the impetus behind PSS therefore, HEFCE and Government need to consider how they can establish a framework within which to incentivise institutions and their staff to build on the achievements of PSS. Outside of funding for students, this could mean providing support for new initiatives and innovations, which institutions might otherwise decide to be too risky. It could also involve use of monitoring or maybe even regulation in relation to PGT students. Adding to institutions' monitoring and compliance burden should not be undertaken without due consideration. However, Government proposals for postgraduate funding mean that institutions stand to benefit from substantial additional income, so this would be on a something-for-something basis. It is also in the interests of potential PGT students to ensure that institutions are doing their utmost to widen postgraduate participation and enhance the student experience.

Themes in detail

2.10 Figure 2.1 is an attempt to represent the themes covered by PSS projects diagrammatically. The size of each ellipse notionally represents the volume of related activity, with intersections showing where activities overlap. The diagram relates to the points made above about the two major strands of PSS.

2.11 Of the 78 bids submitted under the PSS call, 20 were funded. The resulting portfolio is not strictly representative of English postgraduate education in terms of

Figure 2.1: Diagrammatic representation of PSS themes



geography, disciplinary coverage or types of institution funded.[2] Of course some of this reflects the pattern of *application* as much as award. Some institutions with very large postgraduate portfolios, perhaps surprisingly, did not apply.

2.12 There is a strong geographic skew to the funded projects. Nine of the 20 projects were led by institutions based in Greater London. No other single region had more than two projects. This concentration of projects in London mirrors existing indications of a London 'brain gain' at postgraduate level.[3] I am not qualified to comment on the economic geographical implications of this flow of students, but it seems to be something on which further reflection – and perhaps research – is warranted.

Objective	**Number of projects**
Attract students to postgraduate study who would not otherwise have considered it	20
Progression of under-represented groups into the professions	13
Matched funding	13
Outreach	12
Skills needs/growth sectors	11
Discipline specific	10
Innovations to minimise cost	10
Retention and success	10
Engagement with professional bodies	9
Joint funding with industry	9
Part-time postgraduate study	8
Information provision	8
Research into part-time motivations	7
Develop indicators	7
Partnership with lenders	2

Table 2.1: Coverage of PSS priorities by funded projects

2.13 There is a relatively even distribution across types of institution which led PSS projects. Six of the 24 members of the Russell Group were awarded funding (although others were involved in consortia); and five post-1992 institutions were successful (again with more involved in other consortia). Some specialist institutions also received funding. It is noticeable that the three largest projects in monetary terms were all led by Russell Group institutions; on the other hand, this does reflect the concentration of postgraduate numbers to some extent.

[2] This is *not* meant as an implied criticism. It is merely an injunction to note that results from the programme will need to be considered with the shape of its portfolio in mind.

[3] See Section 7 of Wakeling and Hampden-Thompson (2013).

2.14 Turning to the disciplinary distribution of projects, those which focused on particular subjects tended to be in a limited set of areas. Engineering was a strong emphasis, covered by projects at Bath, Brunel, Derby and, to some extent, Lancaster. Cranfield and the Kingston consortium's projects emphasised the sciences more generally and Imperial, as a specialist institution, did so by default (and by excluding its business programmes from its project). The Bloomsbury DTC (Institute of Education) and SOAS projects concerned development of new courses in particular social science subjects and certain strategically important languages. Worcester's project focused on business and management studies and more specifically, entrepreneurship. King's College London and University College London (UCL) both selected a varied range of individual disciplines for their schemes.

2.15 This meant that, relative to their representation in the PGT population as a whole, there was little activity in each of education, business and management studies and the health sciences. Within the science, technology, engineering and mathematics (STEM) subjects the emphasis has been on engineering, with little targeting of life sciences. There were few initiatives specific to the arts, humanities and social sciences and no specialist art, legal or medical institutions led a project.[4] Partly of course, this reflected the emphasis of the PSS scheme itself.

2.16 Table 2.1 provides a crude count of the coverage of PSS priorities across the portfolio. All the projects aimed to attract students who would not have otherwise considered PGT. Other priorities were more weakly covered in the portfolio, especially addressing part-time postgraduate education, working with lenders and minimising cost. There was very little consideration of distance learning PGT (the main exception being part of Derby's project where an online engineering programme was offered). Further details of individual projects are given in Annex 2.

KEY POINTS

- All projects sought to attract students to PGT study who would not otherwise have considered it.
- Projects involved different disciplines, institutions and regional locations, but their distribution was not uniform.
- Two broad themes are discernible in PSS projects: supporting particular kinds of students and supporting particular kinds of programmes.

[4] The Royal Veterinary College's consortium involved specialist arts institutions (Ravensbourne, Trinity Laban and the University for the Creative Arts). RADA was partnered with King's College London.

- PSS provides evidence of latent and frustrated demand for PGT study, with lack of finance being a particular barrier to entry.
- Projects have demonstrated some new innovations in PGT study.
- There is a need to raise the visibility and profile of PGT study.
- PSS has demonstrated an enthusiasm for and commitment to developing PGT education in England. This positive impetus needs to be harnessed and sustained.

3 CHALLENGES IN EVALUATING PSS

The design of PSS

Scale and scope

3.1 PSS has been a major programme of activity. It is without doubt the largest ever intervention in postgraduate education in the UK by some considerable margin. It may well be the largest and most extensive initiative of its kind globally. The size of the activity, with a budget of £25M for 20 projects involving more than 40 institutions and around 2,000 funding awards to students makes evaluation a challenge. This is matched by the scope and complexity of the activity undertaken, which both within and across projects covered a broad range of objectives and types of work. Inevitably any evaluation and synthesis of the whole programme will lead to some simplification and a loss of subtlety. The payoff though is the possibility of extracting overall lessons, identifying consistent findings across different projects and institutions and hence drawing general conclusions for the future of PGT education in England.

Challenges in making deductions

3.2 When researching the effect of a policy initiative or change, evaluation researchers in education favour the use of a 'randomised control trial'. This approach, often referred to in the literature as the 'gold standard', is designed to isolate the effect of the policy or initiative in question from other confounding influences. It is a means of increasing researchers' confidence that any changes observed are due to the specific intervention made, rather than something else. In such a trial, an intervention is carefully designed and piloted, before being assigned randomly to an experimental group for implementation. A comparable control group receives no intervention. Measurements are taken before and after the trial and compared, taking into account other relevant variables.

3.3 Researchers using a well-designed randomised control trial can identify whether an intervention had a statistically significant effect; that is, did it make a difference to outcomes that cannot be written off as a chance occurrence? They can also estimate the 'effect size', that is *how much* of a difference the intervention made.

3.4 As an example, to determine the effect of a £10,000 PGT scholarship on the participation of students from a household with income of less than £42,000, one could select a group of institutions, measure the household income of their applicants and entrants in Year 1; provide scholarships to a randomly-selected half of the institutions in Year 2; and then measure the household income of their

applicants and entrants again as they commence study at the beginning of Year 3. One could hypothesise that institutions with scholarships would attract significantly more applicants from lower-income backgrounds than institutions in the control group; and that a higher proportion of low-income-household applicants would enrol at the scholarship institutions than at the control institutions. With careful design and analysis, one could be reasonably confident that a change in application and entry patterns associated with the trial would be replicated if it were adopted nationally. One could also see how much of an effect the scholarships had, given the investment made.

3.5 PSS projects do not follow this 'gold standard' design. They might be more accurately conceived of as 'pre-experimental'. Nearly all of the projects involve an intervention of some kind (not necessarily financial in nature), but these interventions have not been schematically planned or co-ordinated. Rather they arise from the projects' 'bottom up' initiatives and so even broadly similar schemes can vary in important respects, making evaluation tricky. Few of the projects have suitable baseline measures available with which to compare 'before' and 'after' and none have a control group. One might conceive of institutions not participating in PSS as a kind of control group, but not one which has been selected randomly. Institutions receiving PSS funding had actively sought it and hence awarding of projects was not a random process. This has clear implications for the confidence with which conclusions can be drawn from PSS. To return to the household income example, we lack baseline data about the household income of postgraduates, therefore it is difficult to judge whether a scholarship which attracts lots of students from that background has had a significant impact, because we do not know if many such students might have been admitted anyway. Instead we are forced to consider contextual information (such as data about the household income of undergraduate entrants) and to make a more subjective judgement on the 'balance of probabilities'. It also means we should expand the kinds of data collected, drawing both on more general analyses of data about graduates and postgraduates (as *inter alia* in the Essex, Kingston, Oxford and Sheffield projects) and on the qualitative accounts of applicants and students themselves as they reported barriers encountered in entering postgraduate study in the past. Similarly in projects involving employers, this means including their views on their need for particular kinds of employees and on the quality of postgraduate education and students.

3.6 There are, of course, a number of reasons why a 'gold standard' approach would have been unpalatable for PSS. The first academic year would need to have been taken up with data collection to establish a baseline, effectively meaning no students could be supported under the scheme until 2015/16. A random approach to allocating funding may be 'scientifically' fair, but would be highly controversial and would not reward enthusiasm and effort in PGT education. Furthermore, maintaining a 'pure' trial would in any case be very challenging. Using the

household income example, it would be difficult, perhaps even illegal to prevent institutions in the control group putting together their own scholarship packages independent of the trial. All the institutions in the trial might also want to see the hypotheses confirmed, which could lead them to alter their behaviour, thus compromising its integrity.

3.7 A further design issue is the *focus* of individual projects. A number of projects involved a main element, with a set of (sometimes quite extensive) subsidiary activities alongside. It is understandable why bidders included such additional elements as they contributed to a holistic and thereby attractive project proposal. As an initial reaction, I felt that some of the singularly focused projects seemed not to convey such a strong engagement with the spirit of the PSS programme as the more 'rounded' proposals. With the benefit of hindsight, there were good reasons for tightening the focus of projects. In revisiting project outcomes, subsidiary activities in projects risked being fragmentary and perhaps tangential to the overall thrust of the main project. By contrast, some projects which had seemed too simple at the outset actually provided straightforward findings when it came to evaluation.

3.8 We should be clear that PSS, as a pilot programme, was not conceived simply as a clinical and detached set of research projects, but rather as a means for creating some immediate impacts for potential postgraduate students whilst also improving the knowledge base. Notwithstanding the detailed issues with timing discussed in Paragraphs 3.12 – 3.17 below, it is recognised that the policy and research timetables operate according to different logics which are in practice very difficult to align. So although there are design and timing weaknesses which we must take into account in drawing conclusions, PSS has still been of considerable value as a pilot programme.

Quality of data

3.9 There is variation in the quality of data produced across the programme from the perspective of evaluation. As an example, several projects incorporated a survey element whereby the PGT population in an institution and/or its PSS award-holding students were asked about their background characteristics, career and educational history, motivations and concerns. Projects conducted these surveys at different times, using different questionnaires, with quite different sample definitions and with variations in response rates. Various important variables were operationalised in different ways across projects. Results were also handled differently in the analysis stage (e.g. whether or not nonresponse bias was taken into account, whether certain kinds of students, like international students, were excluded from analysis, etc). In these circumstances, findings from different projects can be compared with only limited confidence.

3.10 Similarly, in evaluating the effect of different interventions, comparing across projects is very tricky. Institutions offered quite different financial packages, with different selection criteria for awards in operation, even within consortia. As already mentioned, PSS projects lacked control groups. Quite justifiably, projects asked their PSS award holders and others what they felt the effect of different interventions had been and there are some useful responses. In evaluating the robustness of different interventions however, we need to adopt a healthy degree of scepticism towards such claims. Respondents can be prone to offering platitudes and *post hoc* rationalisations. Measurable benefits in comparison to those not receiving interventions can be hard to come by and we must remain aware of the possibility that some other intervention could have been tried instead, and that there may have been no appreciable difference in outcome with no intervention.

3.11 With the benefit of hindsight, a lesson from PSS for future programmes is that more prescription of project design should generate considerable benefits at the analysis and evaluation stages. This could mean insisting on a tighter focus for projects; supporting projects which have 'critical mass' on a particular intervention; and providing more direct support and advice to projects on the design of research elements.

Timing challenges

The policy timetable

3.12 As already noted above, a major difficulty in the evaluation of PSS relates to the non-alignment of the scheme timetable with that for PGT policy implementation and development. Policy development and announcements have been running ahead of, or at best in parallel to, the emergence of insights from PSS.

Weaknesses and opportunities

3.13 Taken together, the issues with (a) the robustness of the scheme design for evaluation purposes; and (b) the non-alignment of the PSS and policy timetables present a challenge for HEFCE and BIS in establishing a firm basis for future PGT funding settlements. However this is also an *opportunity*. There is no compelling reason to create permanent PGT policy and funding fixes. There seems to be cross-party political support for dealing with the postgraduate question in England. This means that PSS need not be a 'once in a lifetime' opportunity to address PGT issues. Rather it should be seen as a major first step for PGT policy and funding. This is a relatively novel sphere of operation for HEFCE and hence a precautionary and incremental approach is attractive.

3.14 To be clear, this is *not* a clichéd academic call that 'more research is needed'. As I argue, there are some clear indications in several areas of PSS of what will work and what does not. Institutions and students will benefit from an indication of the direction of travel and some commitment to continuity of funding to support innovation and development. In other areas of PGT however there is less certainty available from PSS at this point. Here a more careful approach is advisable, recognising that this may frustrate some of those seeking a rapid, comprehensive and final settlement for PGT.

'Left' and 'right' censorship

3.15 A further challenge in evaluating PSS relates to potentially missing data at each 'end' of the process of PGT decision-making, application, enrolment, study and completion. To use the technical terms, data collected through PSS are both 'left' and 'right' censored. During site visits, in their final reports and in various other fora, projects have unanimously and forcefully highlighted the difficulties encountered by the constrained timetable for PSS. Bids were invited in July 2013, with the successful projects announced in December 2013. This meant a relatively short time period in which to create new programmes (where applicable), publicise them, engage other stakeholders such as employers and attract applicants. In many cases projects reported that PSS scholarships offered were supporting already *existing* applicants who might have struggled to obtain sufficient funding, rather than attracting *new* applicants. The evaluation is therefore 'left censored' in that it is difficult to know for sure whether any of the projects would have fared differently with a longer lead-in time. There was particular concern that PSS did not cover a full postgraduate application cycle, which for many institutions and programmes begins slightly before the academic year prior to that in which a postgraduate applicant intends to commence study.

3.16 In a similar vein, projects which involved the development of novel and innovatory programmes reported timing difficulties. The delayed announcement of PSS project funding curtailed the time available to design and construct new programme proposals and pass them through institutional quality assurance processes. Institutions *did* manage, in all cases, to secure programme approval and to begin recruitment. Such a constrained timeframe is far from ideal however, significantly limiting the opportunity to promote and recruit to new programmes. It proved possible when operating in project mode, with funding support and often with senior management sponsorship. This extraordinary support would not routinely be available and does not represent a desirable model for new programme development.

3.17 Projects are 'right censored' because, as noted above, it is not possible to report on student outcomes within the PSS timeframe. Full-time PSS students are

scheduled to complete around or after the time of writing of this report, meaning it is not possible to review outcomes, nor subsequent destinations. Part-time students and those on longer-format, full-time programmes recruited through PSS will complete in 2015/16.

PSS2

3.18 Evaluation of PSS2 is out of scope. It is worth noting that there are significant discontinuities between PSS and PSS2 which mean there is only limited value in comparing across them. For some PSS projects there is little articulation between 2014/15 and 2015/16 as PSS2 has a considerably different focus and design. This particularly applies to projects involving new programmes (e.g. Bath, Derby, Lancaster), working on specific disciplines (Brunel, Worcester) or exploring new kinds of funding (Cranfield, Durham). In other projects there is perhaps more continuity, including the size of the scholarship offered, but eligibility restrictions are much stricter for PSS2 than for PSS. The students at which PSS2 is targeted were subject to quite different undergraduate student funding to those involved with PSS.

Future monitoring of PSS students

3.19 A further issue for the PSS scheme and future iterations (such as PSS2) is identification of students who have received PSS support (in order to enable cross-institutional comparisons). Following an earlier recommendation, HEFCE has agreed with the Higher Education Statistics Agency (HESA) that the award of PSS funding to a student will be recorded in the HESA Student Record return of July 2015 using the 'INITIATIVES' field. This will allow HEFCE's analysts, as well as (potentially) other researchers to identify PSS award holders in the HESA Student Record (and subsequently the Destinations of Leavers from Higher Education survey)and to undertake *post hoc* analysis of the cohort, subject to Data Protection protocols.

Risk

3.20 Finally, it is worth emphasising that PSS was a pilot programme. Such an initiative comes with an acceptance of a certain amount of risk and indeed an expectation that some projects will not achieve their ambitions. As the intention is to support innovation in order to learn more about PGT through novel activity and direct support to students, projects which experienced recruitment and other issues nevertheless still contribute to the generation of new knowledge about what works and why.

KEY POINTS

- PSS is the largest intervention in postgraduate education in the UK and possibly the world.
- It is a complex programme.
- This scale and complexity makes evaluation a challenge.
- The PSS programme does not have an experimental design, which constrains the interpretation and generalisation of results.
- Some projects involved an extensive and ambitious set of activities. In hindsight this has made them more difficult to evaluate.
- There is variation in the quality of the data which projects were able to generate and some difficulties in comparing findings across projects directly.
- There were a series of timing challenges in PSS relating to the mismatch between the programme timetable, the academic cycle and the policy timetable.
- It is important to balance these issues with a recognition that PSS was conceived as a means for creating some immediate impacts for potential postgraduate students whilst also improving the knowledge base, rather than as a detached programme of research

PART B

Taught postgraduate students in the Postgraduate Support Scheme

4 WIDENING PARTICIPATION TO PGT STUDY

4.1 PSS is intended to investigate measures to support and facilitate access to PGT for able students, whatever their background. A considerable proportion of PSS funding and effort was directed toward this goal. Whilst all of the funded projects aimed to *expand* participation, the set intending to *widen* participation was smaller. Interventions piloted to achieve the objective of widening participation to PGT are discussed in the subsequent sections in Part B on postgraduate funding, and advice and guidance respectively. Conceptualising and then operationalising underrepresentation at PGT level necessarily precedes the determination of effective interventions and this forms the focus of the current section.

4.2 A body of research literature is beginning to emerge on the topic of access to PGT and this will be further augmented through PSS. However, further thought is required about what exactly is meant by underrepresentation, disadvantage and widening participation at PGT level. Two key questions are:

i. What are the *values* which underpin activity to widen PGT participation? For instance, are we seeking to ensure meritocratic selection based on academic attainment alone or are we seeking to address underrepresentation and diversity?

ii. Are different *concepts* needed for PGT as opposed to undergraduate access or are differences between the levels only about differences in *measurement*?

4.3 If we are able to establish a concept of widening participation for PGT (or adapt existing ones), we then need to think about how that might be operationalised. Here we may need to add to or revise measures we currently have available, simply extend their collection from undergraduate to PGT level or perhaps write them off as impractical.

4.4 We must acknowledge that this is a difficult and complex exercise at both the conceptual and operational stages. We should also note that PSS-supported institutions seeking to offer funding to students underrepresented at postgraduate levels were faced with the practical imperative to publish criteria and advertise scholarships so that they could recruit students for autumn 2014. They had to be pragmatic, borrowing from undergraduate criteria. PSS projects can therefore provide evidence on both the *process* of trying to operate these criteria in terms of verification and unforeseen definitional issues; and on the *outcomes*, i.e. whether students with these characteristics entered in greater numbers.

Values: what are we trying to do?

4.5 Deciding what to do in relation to access and widening participation for PGT students is not simply a technical matter; it involves normative decisions. Different approaches to widening participation, involving different value judgements, could include:

i. *Equality of opportunity*, which focuses on creating a 'level playing field'. Questions of academic merit will be strongly emphasised.
ii. *Equity of outcome*, which may involve the use of targeting or positive discrimination to mitigate background disadvantages for a particular goal (such as improving upward social mobility).
iii. *Diversity*, where the aim is to create a socially mixed cohort to enrich the educational experience for all through creating a cohort from varied backgrounds and with different previous experiences.

4.6 These different normative frameworks can be seen in the approach taken to widening participation in different countries. In the USA discussion tends to centre on 'graduate diversity' rather than on 'graduate access' (Posselt and Garces, 2014). In France, a focused version of 'equality of opportunity' applies, seeking out the academically able but materially deprived for entry to elite higher education. In the UK, arguably there are aspects of all the approaches above in operation in widening participation work.

4.7 The values and approach adopted will influence which strategies and measures are employed. Within PSS we can see different normative approaches underpinning the projects. For example, there are several projects which seek to increase the recruitment of women to PGT engineering. Women engineering graduates are more likely to progress to PGT than their male peers (Wakeling and Hampden-Thompson, 2013), but they nevertheless comprise only a small minority of PGT students in the discipline. Here, then, the emphasis is on diversity.

4.8 Within what follows, I want to be explicit that I am emphasising equity of outcome and to some extent equality of opportunity. I take this to be the main approach of the projects within the PSS programme. As already noted, it is not the only approach, and hence an emphasis on diversity may need different strategies, interventions and measures.

Widening participation at PGT level

The phases of PGT widening participation

4.9 PSS projects and others have stressed the need to understand *what is meant by PGT widening participation*. There is a demand for an overarching understanding which synthesises findings across the projects and gives guidance for future activity and interventions. I attempt here to propose a general, simplified model for widening participation at postgraduate level. In essence, I argue there are two key considerations. The first is affordability: how should funding for PGT students be targeted to reach those who are prevented from enrolling by lack of access to financial resources? The second consideration relates to all the other influences on PGT enrolment which might lead to underrepresentation of certain groups, covering such aspects as attainment, motivation, understanding, the application process and so on.

4.10 Much of the widening participation activity in PSS has involved the awarding of scholarships. Scholarships target only two particular points in the long process of entry to PGT study. Principally, they enable those without access to other financial resources to enrol, if they already have an offer of a place. Prior to that point, a whole chain of decisions on the part of graduates and institutions has taken place. The availability of scholarships may have some influence on whether a graduate intends to apply, but other parts of the process are not really influenced by funding. We want to be sure that the process of application and admission is fair – that it does not discriminate against students from different backgrounds or otherwise present unnecessary barriers.

4.11 In discussing fairness, we should note some important differences between undergraduate and PGT admissions. At undergraduate level, substantial attention has been paid to questions of 'fair access' following political scrutiny of admissions practices and the subsequent recommendations of the Schwartz report (Admissions to Higher Education Review, 2004). These focussed on admissions practice, in particular the need for greater transparency, especially about the criteria employed in selection decisions. Before 2015, full-time undergraduate study in England was subject to various kinds of student number control, meaning UK/EU applicants were competing for a limited amount of places. It was essentially a 'zero sum' activity, where person A taking up a place would mean person B would not be able to take that place.[5] At PGT level there are no student number controls. Some PGT courses may nevertheless have limited places, for instance where there are other external constraints on numbers (e.g. for placements). Courses with very high demand may also adopt self-imposed limits to their intake. In many other cases however

[5] This is a simplification to illustrate the main point.

institutions will be seeking to maximise enrolment on a course, especially since evidence suggests the average enrolment on PGT programmes nationally is 12, against typical institutional minimum targets for viability of 10 – 15 (Coyle and Roberts, 2012).

4.12 Most PGT courses stipulate entry conditions which go beyond the basic requirement to hold a first degree and not all applicants receive an offer of a place. A study of postgraduate applications for BIS (2013) found a UK/EU PGT application-to-offer ratio of 5:3 in 2011/12. In stark contrast to undergraduate applications, little is known about the factors which affect the probability of receiving an offer. Research undertaken as part of one of the PSS projects using over 40,000 UK PGT application records found that older PGT applicants and men were more likely to receive an offer than younger applicants and women, although this was unable to control for prior attainment (Wakeling, Hancock and Hampden-Thompson, 2015). There may be a case for examination of the transparency and suitability of PGT admissions practices along the lines of that recommended by Schwartz and its successor body, 'Supporting Professionalism in Admissions' (see 4.15 below).

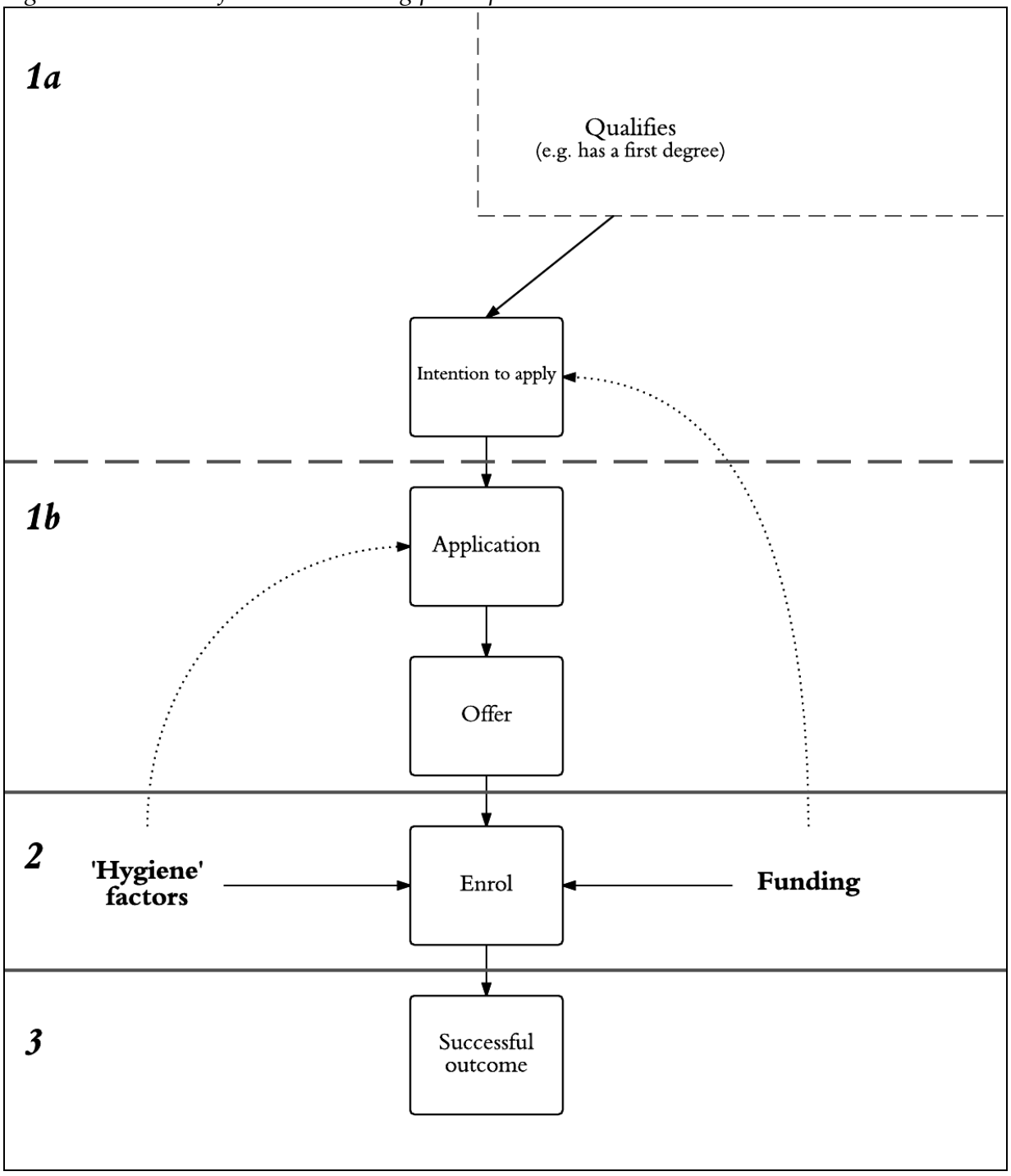
4.13 Even if we are certain that only legitimate discriminators have been used in making admissions decisions, there can still be inequalities in access to PGT study if the pool of applicants is differently composed to the notional population of graduates of which it is a subset. Thus PGT widening participation should involve work akin to that undertaken at undergraduate level to encourage graduates from groups underrepresented in PGT study to consider it. This can draw on and develop existing techniques, and on the evidence collected on such activity through PSS projects.

4.14 Figure 4.1 is an attempt to capture these ideas in diagrammatic form. Sector 1 represents the space in which PGT widening participation activity would be concentrated. This involves monitoring patterns of application and enrolment, and targeting (non-financial) interventions to underrepresented groups to explain, demystify and promote PGT study. Techniques tried in PSS for such outreach activity are discussed in Section 6. Such work has the potential added benefit of promoting the value of PGT study to *all* graduates.. Ideally this work should not be limited to graduates only, but should include undergraduates who are still studying.

4.15 Sector 1b covers institutions' own admissions practice and how PGT applicants interact with it. Widening participation activities here could include investigation of 'contextual admissions' at PGT level. It could also involve scrutiny

of institutions' admissions practices and policies, including those of academic staff, to ensure that practice is fair and non-discriminatory.[6]

Figure 4.1: A model for PGT widening participation



[6] Possible effects might include unconscious bias on the part of selectors towards certain groups and/or the use of questionable criteria (e.g. taking first-degree institution as a proxy for ability). There is no evidence from PSS to suggest whether admissions practices are fair or unfair in this regard.

4.16 The next phase, shown in Sector 2 of Figure 4.1, involves enabling actions. This will mainly mean provision of funding support for those otherwise able to enrol and here the responsibility lies largely outside of institutions. Conversely, addressing the 'hygiene factors' identified by Mellors-Bourne, Hooley and Marriott (2014) is the responsibility of institutions. That is, do the logistics of PGT study work for the potential student? Can they fit the timetable around their other commitments? Can they get to campus if part-time or find somewhere to live if full-time? If disabled, can they rely on suitable facilities and support?

4.17 The final phase, show in Sector 3 of Figure 4.1 is somewhat out of scope for the PSS programme, but is important nonetheless. Having secured entry to PGT study, do students successfully complete the programme and obtain appropriate subsequent outcomes? Are there inequalities in success?[7] Reports from PSS projects suggest that student retention has been high. It is too early to evaluate outcomes beyond that at the present time.

4.18 In considering PGT widening participation, we should remember that graduates have free will. They elect to enter PGT as one post-graduation choice among many. It is not necessarily the 'best' choice for a given individual. Whereas undergraduate entry is now approaching saturation for those with appropriate Level 3 qualifications (Roberts, 2010), PGT is likely to remain a minority rather than 'automatic' choice among graduates for the medium term.

Mutability and independence

4.19 Having proposed different phases of the PGT entry lifecycle for addressing widening participation activity, I now turn to an important conceptual distinction related to measuring the characteristics of potential postgraduate students: between background characteristics which endure and those which dissipate. A 21-year-old male graduate from a socio-economically deprived background who has completed a history degree would still be considered deprived if he sought entry to a masters degree in the academic year after graduation, because his material and familial circumstances are highly unlikely to have changed since entering university. If the same graduate had first worked in a well-paid professional job for five years after graduation, he might no longer be considered to be disadvantaged since we would see him as socially mobile. We can say that his social class is *mutable*. However other characteristics are *immutable*: gender and ethnicity, for instance.

4.20 Many of the measures used within undergraduate widening participation work look at potential students' current or very recent experience – for instance, are

[7] This has been the focus of recent work commissioned by HEFCE looking mainly at undergraduate retention and success (Mountford-Zimdars *et al*., 2015).

they receiving Free School Meals? Do they currently live in a 'low participation neighbourhood'? What are their parents' occupations? These mutable characteristics are likely to decline in validity as individuals get older and start to form their own households.

4.21 For mutable characteristics therefore, we need some way to determine when to stop using parental measures and use instead individuals' own characteristics. At undergraduate level, an 'independence' threshold is employed, such that students over 25 years of age (or meeting certain other criteria, such as being married) are assessed for student support on their own, rather than their parents' circumstances.

4.22 A separate report for HEFCE reviews the evidence in this area (Wakeling, Berrington and Duta, forthcoming 2015). Briefly, it finds that before the age of 30, and certainly before the age of 28, a sizeable proportion of graduates are not yet established in separate households. Conversely, after the age of 30, not all graduates are in socially advantaged positions, as measured by their personal and household income and occupational social class.

4.23 A decision on precisely where any independence threshold should be drawn cannot be made on the basis of the empirical evidence alone. It is at least partly a normative question (when *should* a graduate be considered independent?). However it seems clear that in measuring graduates' mutable characteristics, either for the purpose of financial assessment or for monitoring and targeting non-financial interventions, we should adopt a systematic approach to selecting parents or graduates themselves as the appropriate referent.

4.24 The stakes are higher when it comes to financial support. Awarding a needs-based scholarship to someone who did not need it because an inappropriate referent was used has greater consequences than inviting someone to a guidance event who is not 'really' in the target group.

Operationalising PGT widening participation

From broader factors to specific measures

4.25 Having proposed concepts for considering PGT widening participation, the next step is to operationalise those concepts in ways which can be used to measure outcomes and inform the design of interventions. The basic questions here are:

i. What are the known areas of concern?
ii. What issues are we aware of *a priori*?
iii. What evidence do we have from PSS about different measures and their usability?

4.26 Table 4.1 sets out factors known to be associated with undergraduate and/or PGT participation rates. It also includes some measures where there is uncertainty about association with PGT participation but which were adopted or considered by PSS projects concerned with widening participation.

4.27 Three sets of factors emerge as matters for concern. **Material factors** affect the capacity of a graduate to enter PGT study on the grounds of affordability. The measures listed are potential *proxies*. These are generally mutable factors in that their effect is expected to dissipate as the time from first-degree graduation increases. Those factors listed as **'Discrimination/aspiration/choice'** are not directly linked to affordability and may need different kinds of intervention. These are generally immutable factors. Finally **other factors** are listed which do not neatly fit into the first two categories. They are not necessarily associated with material disadvantage, discrimination or differential aspiration. The heterogeneity of PGT complicates patterns of PGT participation. Factors affecting participation will vary across different kinds of student, modes of study and types of programme.

Organising measures and interventions

4.28 Table 4.2 moves from identification and classification of measures to an evaluation of the use of those measures for widening participation interventions. Four overarching types of intervention are considered:

i. 'Inreach' aimed at promoting and demystifying PGT to current undergraduate students

ii. Outreach, having a similar objective to inreach, but aimed at graduates no longer in higher education

iii. Financial support, intended to facilitate entry for the disadvantaged who lack financial means to participate and/or to encourage participation from underrepresented groups, creating a diverse PGT student body

iv. Work to ensure transparency in the admissions process.

4.29 For each type of intervention I propose measures from the long-list in Table 4.2 to be retained or discarded. I discriminate on the basis of measures' construct and content validity: i.e. do they represent the underlying factor we intend to address in a way which can be realistically recorded? Some measures remain useful and are moved to the shortlist considered in detail in Table 4.3.

Factors	Measure	Effect on participation UG	Effect on participation PGT	Mutable?
Academic	2.2 degree classification or lower	n/a	↓	n/a
	First-degree field of study	n/a	↓/↑	n/a
	First-degree institution	n/a	↓	n/a
Material factors	Entered HE from a 'low participation neighbourhood'	↓	↓	Yes
	Household NS-SEC 4 – 8	↓	↓	Yes
	In receipt of full or partial UG grant/bursary	n/a	?	Yes
	High level of UG debt	n/a	↓	Yes
	Current benefits claimant	?	?	No
	Free School Meal recipient	↓	?	Yes
	Current household income	↓	?	No
Discrimination /aspiration/ choice	Female	↑	↓	No
	Reporting certain disabilities	↓	↓	No
	First generation in higher education	↓	↓	Yes
	Black/British Caribbean or Asian/British Bangladeshi ethnicity	↑	↓	No
Other factors	Former state school pupil	↓	↓	Yes
	Disability	↓	↓/↑	No
	Care leaver	↓	?	Yes
	Dependants/caring responsibilities	↓	?	Yes
	Age	↓	↓	No

Table 4.1: Classification of disadvantages to be considered in widening participation, with associated measures

Notes

Evidence for PGT underrepresentation: all academic factors; NS-SEC, gender, ethnicity, state school, first generation HE (Wakeling and Hampden-Thompson, 2013; HEFCE 2013b); low-participation neighbourhood, disability, age (HEFCE, 2013b); undergraduate debt (Ellison and Purcell, 2015).

Form of intervention	Factors targeted	Purpose	Discarded measures	Justification	Remaining candidate measures
'Inreach' activity for current undergraduates	Academic	Explain nature of PGT, its benefits, process of application, funding etc. Offer tasters, mentoring etc.	Degree class, first-degree discipline	Legitimate discriminators for PGT entry	First-degree institution
	Material disadvantage		High UG debts	Debt levels not yet known	Low participation neighbourhood
			Current benefits claimant	Not applicable to most current students	
			Former FSM pupil	Data not currently captured, blunt measure	NS-SEC 4 – 8
			Current household income	Already captured through grant/bursary eligibility	Full/partial UG grant or bursary
	Aspiration/choice		None	-	Gender Ethnicity Disability First generation HE
	Other		State school pupil	Too blunt a measure for in-reach	Age Care leaver Dependants
Outreach activity for graduates	Materially disadvantaged		All measures except current benefit claimants	Very difficult to target relevant individuals in the general population	Current benefit claimants
	Aspiration/choice		Disability Ethnicity First generation HE	Difficult to target groups; sensitivity in advertising outreach	Gender
	Other		All measures except age		Age
Scrutinise recruitment and admissions practices	Discrimination	Identify and prevent unfair practices, unconscious bias etc.	First generation HE	No *a priori* reason to believe this could be basis of discrimination or unconscious bias	Ethnicity Gender Disability First-degree institution Age

Table 4.2: Evaluation of measures for targeting potential PGT widening participation interventions

4.30 A wide range of socio-demographic data is currently collected about full-time undergraduates, particularly those who enter higher education via UCAS, and this forms the basis of a series of monitoring reports by HESA, HEFCE and others. There is detailed information, for instance, on the participation of underrepresented groups across institution and time contained in HESA's annual Performance Indicators. Similarly, institutions monitor participation using various standard and local benchmarks and use these to inform their outreach and fair access activity, informing their widening participation strategies and reports to the Office for Fair Access. It should be reiterated that many of these data are not collected at postgraduate level. In part this is due to the aforementioned uncertainties about how to conceive of and define underrepresentation at postgraduate level. However it is also the case that a lack of previous attention on the issue of entry to postgraduate study has meant there has been no reason for institutions to collect data about postgraduates.

4.31 Without data, it is not possible for institutions, external organisations or researchers to monitor PGT participation. Without monitoring, we will continue to have large gaps in our knowledge and very little basis on which to plan interventions to improve and develop PGT participation. It is clear that much better and more systematic data collection is needed. This observation is supported by the reports of PSS projects many of which have noted the underdevelopment of institutional systems for collecting and/or monitoring data about PGT applicants and students.

4.32 The nature and scope of this additional data collection will need careful consideration to ensure that the administrative burden on institutions is minimised and the quality of data is optimised particularly if additional funding for institutions is attached.

Detailed consideration of measures for data collection

4.33 Table 4.3 applies detailed scrutiny to the shortlist of measures from Table 4.2. The evaluation here draws on discussions with projects during site visits, at the first national workshop and from project final reports about the challenges of trying to implement scholarship schemes using existing – and in some cases new – widening participation measures.

4.34 Reflecting on the outcomes of PSS (especially those reported in Paragraph 5.10 ff.) the measures adopted by projects for assigning scholarships seem to be at cross-purposes with the model of PGT access proposed in Figure 4.1. That is, if the role of scholarships in widening participation is to mitigate lack of financial resources ('Material factors' in Figure 4.1), then the measures adopted do not assess that directly. Instead they are the kind of measures of educational disadvantage

which should be targeted in 'Academic' in Figure 4.1. As already noted in Paragraph 4.4, this is no criticism of institutions. They were compelled to adopt proxy measures for material disadvantage for the most part, rather than measuring financial need directly. Often these proxies worked relatively well, but they remain proxies. For this reason, I have added household income to the list of measures in Table 4.3.

4.35 To reiterate then, my key point is that funding aimed at improving participation should be allocated on the basis of direct assessment of financial means. Projects which utilised existing recent financial assessments such as Imperial College and UCL in the allocation of scholarships could clearly demonstrate their PSS students were from low – often *very* low – income households. Other activity should use non-financial measures for targeting. All measurement needs to take into account the various issues relating to particular measures, suggesting that reliance on any single measure should be avoided.

Monitoring PGT participation as a basis for action

4.36 Section 6 below discusses and evaluates the actions to widen PGT participation which have taken place as part of PSS. To underpin and inform such action there is need for suitable data. This needs to be collected and analysed by institutions and reported to HESA via the annual Student Record return so that others, including HEFCE, can analyse it too.

4.37 Many relevant data about postgraduates are already reported to HESA, but appear not to be analysed or considered by institutions in relation to PGT students. These include:

- Gender
- Ethnicity
- Disability.

4.38 Other data are typically collected by institutions as part of their PGT admissions procedures, but are not systematically categorised or analysed. These include:

- First-degree subject
- First-degree institution
- First-degree attainment (degree classification)
- First-degree year of qualification.

Factor	Data already held?	Different for independent graduates?	Summary of measurement issues	PSS projects using this measure for interventions
Current household income	Partially	Yes	Need for a centralised approach for efficiency and to improve robustness of assessments. PSS experience suggests there are lots of tricky cases and it can be labour-intensive. There appears to be appetite for using existing Student Finance England (SFE) cut-offs (c. £25,000/£42,000 p.a.). Validity issues with household residual income – see recommendations in Section 5 on funding. Also comparability issues if EU students included. 'Independent' graduates should be assessed on their own household, not parents'.	Bath, Essex, Imperial, King's, Nottingham Trent, Oxford, Sheffield, UCL
Holds/held full/partial UG grant or bursary	Yes	Yes	Existing assessments are conducted through SFE, but institutions only have access to their own students' data. Possibility of a system for allowing secure access to all SFE assessments for PGT applicants. Income assessments could change considerably after graduation – will date quickly.	Bath, Essex, Imperial, King's, Nottingham Trent, Oxford, Sheffield, UCL
Disability	Yes	No	Self-reported. There are suggestions of under-reporting of disability to universities but this is a general issue. Likely to need to distinguish between different kinds of disability. Receipt of Disabled Student Allowance may be a useful proxy.	Sheffield

Table 4.3: Detailed scrutiny of shortlisted measures for PGT widening participation

Factor	Data already held?	Different for independent graduates?	Summary of measurement issues	PSS projects using this measure for interventions
Gender	Yes	No	None	Bath, Brunel, Oxford, Sheffield
Care leaver*	No (perhaps optionally)	Possibly*	Perhaps *the* most underrepresented group in HE (small, but very disadvantaged). Need to establish a minimum duration of being in care. Need to determine what counts as care: local authority or other forms. Need agreed evidence standards.	Oxford Sheffield
Low participation neighbourhood (and similar measures, e.g. the Index of Multiple Deprivation)	Partially	Yes	Postcode of PGT applicant is ambiguous. Does it represent parental address, owner occupier home, university accommodation, private House in Multiple Occupation (HMO) rental? Relies on self-report: difficult for institutions to validate, especially for non-alumni PGT applicants. More generally, there are concerns about using what is essentially an *aggregate* measure to characterise individuals – a so-called 'ecological fallacy' (Harrison and McCaig, 2015).	Oxford, Sheffield

Table 4.3 (continued): Detailed scrutiny of shortlisted measures for PGT widening participation

* In the Oxford and Sheffield schemes which worked on a scoring basis, care leavers were automatically awarded scholarships.

Factor	Data already held?	Different for independent graduates?	Summary of measurement issues	PSS projects using this measure for interventions
Dependants	No (perhaps optionally)	n/a	Presence of dependants would tend to suggest independent status. Need to consider position of non-resident parents.	UCL (limited)
First generation HE	Partially	Yes	Relies on self-report for non-alumni PGT applicants (and for alumni who graduated some time ago).	Sheffield
NS-SEC 4 – 8	Partially	Yes	Likely to be categorising errors in moving from job title to NS-SEC. Agreed standard of evidence required.	Bath
Current benefit claimant	No	Yes	Agreed standard of evidence required. Definition needed regarding length of claim? Unlikely to feature as a criterion for funding; candidate for outreach targeting instead.	None
Ethnicity	Yes	No	Relies on self-report. Likely to be sensitive if used for award of bursaries (no precedent at undergraduate level, although there are philanthropic scholarships). Potential to learn from US experience.	None
First degree institution	Partially	Yes	No measurement issues as such, but unlikely to be acceptable as a criterion for scholarship awards (although many institutions offer PGT tuition fee discounts to their own alumni).	None
Age	Yes	No	None	None

Table 4.3 (continued): Detailed scrutiny of shortlisted measures for PGT widening participation

These should be systematically recorded and analysed.[8]

4.39 A final set of data is not currently collected about PGT applicants and students, but should be in future to permit monitoring of access to PGT study. This should include:

- Household occupational social class
- Whether parents attended higher education
- Type of secondary school attended[9]
- Whether the applicant/student has dependants
- Postcode on entry to undergraduate study.[10]

4.40 HEFCE should investigate how information technology can be used to support the capture and recording of more complex items with the maximum accuracy and lowest transaction cost to institutions.[11]

KEY POINTS

- Widening participation to PGT study was a significant element of the PSS programme.
- Projects had inevitably to adopt a pragmatic approach to widening participation measurement and definition to meet timing challenges.
- There are different normative and conceptual approaches to widening participation at work.
- Two key considerations emerge for PGT widening participation: affordability; and a range of other, prior influences on motivation and aspiration. Both are important; funding alone is not sufficient.

[8] It is possible for HEFCE to analyse these variables by performing record linkage across years of the HESA Student Record. This facility is not available to institutions.
[9] Where practicable, measures should match those used for full-time entrants via UCAS.
[10] As already noted in Table 7.3, this measure may not be useful in targeting individuals, but is useful for understanding aggregate patterns. An appropriate alternative is needed for applicants/students without a first-degree qualification (e.g. postcode at age 18).
[11] As an example, the Sheffield and Kingston projects made use of the 'CASCOT' package developed as part of the Futuretrack study at the Institute for Employment Research, University of Warwick. This package probability matches free-text job titles to Standard Occupational Classifications, which can then be used to derive the National Statistics Socio-Economic Classification (NS-SEC).

- Some of the characteristics used as indicators of underrepresentation at undergraduate level are 'mutable' – i.e. they can change over time and may lose their validity for older graduates.

- In making financial assessments in particular, setting a criterion for 'independence' is needed to establish the appropriate reference household.

- Funding support for widening PGT participation should be targeted directly at financial need.

- A series of candidate measures is reviewed for use in PGT widening participation initiatives. A subset is proposed for recording, monitoring, analysing and reporting.

5 FUNDING FOR POSTGRADUATE STUDENTS

Financial support provided through PSS

5.1 A significant element of PSS expenditure and activity concerned funding support for PGT students. The nature of this support varied across projects, covering singly or in combination:

- Tuition fee support
- Maintenance support
- Placement salary
- Development of tuition fee loan products
- Bursary for services rendered (e.g. mentoring)
- Support for specific study costs.

5.2 All of the PSS projects involved the transfer of funds to postgraduate students in some form. The projects differed in the number, size and form of awards made and the kinds of student and/or programmes supported. Some projects included substantial match funding directed to students, either from institutions themselves, from employers or sometimes from both. Some projects included virtually no match funding or if they did, very little was in the form of awards to students.

5.3 There were around 2,000 awards in PSS. The large majority of places were filled. If PGT registrations for 2014/15 repeat those of 2013/14, this would mean PSS supported more than 3% of all new UK/EU PGT students (excluding those on initial teacher training programmes).[12] Table 5.1 below summarises the various types and size of award offered in the PSS projects.

5.4 Two key questions to which PSS may be able to offer some kind of answer are:

i. Does financial support have a positive influence on PGT enrolments?

ii. If so, what level of financial support is optimal?

5.5 The answers to these questions might vary by type of programme, discipline area and/or type of student. The second question is important if we wish to make the most effective use of public funds, since it may be that two awards of £5,000 have

[12] Source: HESA Statistical First Release 210, Table 2. Available online at: https://www.hesa.ac.uk/free-statistics (accessed 15 September 2015). This is a figure for all UK institutions and so will underestimate the proportion of students supported in England only.

Project	No. of awards	Tuition fee amount*	Maintenance amount	Nature of maintenance payment	Match funding*	Notes
Aston University	100	**£7,500**	-	-	£156,974	Free language provision for 75 postgraduates also included
University of Bath	30	**£8,500**	£6,000	Stipend for students meeting WP criteria	£317,500	
Brunel University	40 20	**£7,750** **£17,000**	£15,000 £15,000	Stipend	£250,000	Match funding includes £8,500 per student from industrial partner for the more expensive programme
Cranfield University	100	Up to £15,000		Loan	£2,000,000 min.	
University of Derby	50 FT 20 PT	**£8,000** **£2,500**	~£6,700 -	Placement salary (24 weeks)	£763,522	
University of Essex	100 100	£5,000		Stipend for mentors Stipend plus salary for placements	£411,722	Contribution to tuition fee – standard fee is close to £5,000
University of Greenwich	150	60% of fee (fee varies, standard rate is £7,200)	£500	Study cost assistance (preloaded debit card)	£944,909	Greenwich offers a 20% alumni discount and a 10% discount for students with first class honours in their first degree
Imperial College London	120	£10,000	£5,000	Grant for students with residual household income <£25,000	£20,000	Fee contribution capped at £10k
Bloomsbury DTC (IoE)	30	**£2600** (2013/14) **£2,664** (2014/15)	~£3,600	Bursary	-	Total bursary provided to students of £6,291
King's College London	36	**£4,975 - £10,300**	£14,000	Stipend	£867,921	

Table 5.1 Summary of tuition fee and maintenance awards for each PSS-funded project (excludes Durham University)

* Bold type denotes the full amount is covered.

** Note that match funding is not necessarily delivered to students directly; match funding amounts taken from original application form.

Project	No. of awards	Tuition fee amount*	Maintenance amount	Nature of maintenance payment	Match funding*	Notes
Kingston consortium	135 FT 135 PT 90	**£Full** £60% £1,000	-	-	£881,376	40 scholarships for each institution
Lancaster University	45	**£6,500**	£1,000 - £3,000	Placement salary	£318,689	Amount of salary will depend on placement provider; £1,000 guaranteed minimum
University of Oxford	115	**Varies**	£13,683	Stipend	£750,000 min.	
Nottingham Trent University	60 FT 20 PT	**£6,500** 67% fee waiver	£12,000	Guaranteed income for students who meet WP criteria – comprises stipend and (where possible) salary	£1,057,000	Some students will be able to add a 12-month internship to the end of their masters
Royal Veterinary College	180	-	-	Payment to PGT mentors of undergraduates	£316,000	20 mentors at each institution
SOAS	11 (2 yr) 11 (1 yr)	Varies, to value of £20,000		Stipend	£170,000	Specific amounts vary across the consortium. Most awards at SOAS (14)
University of Sheffield consortium	434	Varies across consortium partners, but most awards worth **£10,000**, covering tuition fee and cash		Stipend	£2,327,351	
University College London	93	Varies, **£9,000 - £10,000** approx	£10,000	Stipend	£78,475	Further hardship and childcare support available for PGT students
University of Worcester	40	**£6,750**	£2,500	Entrepreneur start-up allowance OR paid work placement	£865,306	

Table 5.1 (continued): Summary of tuition fee and maintenance awards for each PSS-funded project (excludes Durham University)

* Bold type denotes the full amount is covered.

** Note that match funding is not necessarily delivered to students directly; match funding amounts taken from original application form.

more impact than one award of £10,000, for instance. There is very little previous research on the question of the effect of finance on PGT enrolment for UK students.

Public funding for PGT students

5.6 Public debate about PGT participation and access has focused intensely on questions of student finance, almost to the exclusion of other possible factors which influence the probability of enrolment. It is self-evident that students who are unable to access private resources to pay tuition fees and living costs for postgraduate study will be unable, in a situation where public support is scarce or non-existent, to enrol in a PGT programme. There are very few grants and no publicly-backed loans for most PGT programmes in England,[13] meaning around three-quarters of UK-domiciled PGT students are self-funded (HEFCE, 2013a). Those who are unable to self-fund and who do not win a studentship are therefore unable to enrol. In some discipline areas there is limited public support available.[14] In others there is virtually no such support, beyond a handful of scholarships offered by universities. The research councils previously provided awards for stand-alone masters provision, which more recently shifted to support only for 'research training' masters in some of the councils. However some of that provision has now been eroded.

5.7 In the next part of this section of the report, I review the various financial packages made available through PSS and consider whether there are any emerging indications of more and less successful approaches which might be more widely adopted. I then discuss changes in the cost of postgraduate study, before reviewing some of the issues emerging from PSS about collecting data on the financial situation of potential PGT students and the range of measurement problems arising, along with some candidate solutions. Postgraduate loans are discussed in Part D, Section 9.

Details of PSS funding for students

5.8 Turning first, though, to the range of financial support packages offered through PSS, Table 5.1 details these for each project within the scheme (except for Durham University). Here we can see that although there was considerable variety in the form and size of the financial support offered, this tended to be within a particular range. Determining the largest and smallest awards can be done in two ways. Based on the absolute amounts offered to students, the largest package was that offered to students on Brunel University's MSc Structural Engineering, which

[13] Statutory support is available for certain programmes which are not HEFCE-funded (e.g. postgraduate initial teacher training, postgraduate social work training and some health-related programmes).

[14] For example, the programme announced in July 2012 to provide 500 scholarships for masters degrees in aerospace engineering https://www.gov.uk/government/news/government-and-industry-team-up-to-fund-500-masters-degrees-in-aerospace-engineering (accessed 3 September 2015).

with fees and maintenance combined amounted to over £32,000. The smallest awards were the £1,000 contribution to fees offered by institutions in the Kingston-led consortium.

5.9 Another way of comparing across the different financial packages is to think about 'money in the hand'. Full tuition fee waivers are likely to appear the same to a student whether the amount waived is £5,000 or £20,000 – they pay nothing but see nothing, so to speak. At undergraduate level there has been a shift away from tuition fee waivers and discounts for this reason, with the Office for Fair Access concluding they have little effect on student retention or decision-making (Corver, 2010; OFFA, 2014). This does not necessarily mean the same will apply at PGT level. Among the projects offering full fee waivers there was much variation in maintenance support. Brunel remained the most generous, with £15,000 offered to all its PSS scholars, but the University of Oxford, King's College London, Nottingham Trent University and University College London were not far short of this. Oxford's stipend was based on the standard Research Council minimum rate for doctoral students (which might be considered the 'gold standard' for such awards). A very crude calculation of the unweighted mean maintenance funding offered (where provided) gives a figure of roughly £8,000.

Effects of finance on PGT enrolment

5.10 Evidence from PSS provides two ways to look at the effect of the availability of funding on enrolment. We can look at demand and take-up of awards: how popular were different types and levels of funding award? We can also investigate students' and applicants' views on finance and the difference (or not) they report it making.

5.11 In reviewing this evidence, we must bear in mind the issues raised in Paragraph 3.9 and 3.10 about data quality. We cannot be certain that students taking up PSS awards would not have enrolled anyway, without PSS. For the most disadvantaged students this seems implausible, but without comparable baseline data it is not possible to prove conclusively. It is also possible that PSS changed student behaviour, but that financial awards simply diverted enrolments out of other institutions into PSS projects, with no net effect on overall PGT enrolments nationally. Several projects have asked their students directly about the impact of PSS on their behaviour and this provides some very useful and at times compelling testimony. However, we must remain aware of the potential for students' *post hoc* rationalisation of their choices and other issues, including the lack of control groups and the unsystematic variation in size of awards across projects.

Demand for and take-up of awards

5.12 Overall, there was strong demand within PSS, with some projects reporting that they could have offered substantially more scholarships to PGT applicants who met their criteria. Evidently there is plenty of aspiration for PGT study among underrepresented groups.

5.13 There seems to have been some association between size of financial award and student demand, but the relationship is weak and a little patchy. In terms of absolute numbers of applications, the most popular schemes were (in descending order) the Sheffield consortium, Oxford, the Kingston consortium, University College London, Greenwich, King's College London and Essex. It is worth noting that all of these were general schemes, except for King's which covered a mixed, but limited, range of disciplines. Looked at in terms of applications per place, Oxford and King's College London both recorded a ratio of over 7:1, with the Sheffield consortium, University College London and SOAS between 4:1 and 5:1. Greenwich, where the financial offer was relatively small in comparison to other projects, still managed to attract over 350 applications for 150 places. In the Kingston consortium, demand was lower for smaller awards, leading to £1,000 fee waivers being combined to offer a smaller number of larger awards.

5.14 Projects offering awards for particular discipline areas and/or for new programmes seem to have had lower numbers of applications, even in some cases where the financial package offered was relatively generous. Of the 'specialist' programmes, Brunel attracted the highest number of applications. This is likely to be related to the generosity of the award, although it is worth observing that applications were substantially higher for the Women in Engineering programme than for the new MSc in Structural Engineering (which in total resources was the largest financial package in PSS). It is notable that the two 'general' projects with the lowest demand were both in institutions with a strong emphasis on STEM disciplines – Aston University and Imperial College London – although both were oversubscribed. Projects working with engineering programmes or using innovative employability-based approaches had a lower number of applications and applications per place, often in spite of having generous tuition-fee and maintenance-support provision. In some cases they (narrowly) missed their targets.

5.15 How scholarships were advertised appeared to be important for overall demand and take-up. The Sheffield consortium typically offered an award of £10,000 to students who qualified for their schemes. Their publicity emphasised the amount of the award, even though this would mostly cover tuition fee payments. Thus the amount signalled to students may be most important. Some of the more generous schemes did not always specify the amount of the scholarship prominently and in a

few cases it took me some time to find the required information on institutional websites.

5.16 In summary, the experience of PSS projects in designing and implementing scholarship schemes has much in common with that seen at undergraduate level for bursaries. Callender (2015) proposes four principles for designing student finance systems, based on collated evidence of what works: they should be simple to understand; transparent in process; predictable; and with early notification of outcome. Where PSS projects involved scholarships which matched these principles, they tended to be more successful.

Scholarships and PGT applicants' decision making

5.17 Another consideration is the potential scholarship applicant's prior decision-making process. As noted above, the University of Oxford attracted the highest number of applicants to its scheme, but the nature of its scheme was different to many others because of timing: Oxford's PGT application deadlines are much earlier than other institutions in PSS and hence those applying for funding were individuals who had already submitted an application for a place to Oxford. In other cases those applying are more likely to be new applicants. This was particularly likely to be the case where a new programme has been established. Lancaster University's MSc Data Science is an example since the programme was not advertised until relatively late on in the application cycle following programme approvals and other start-up activity so it is far less likely to have included applications already 'in the system'. Projects with significant marketing and publicity activity, including, but not limited to, the University of Greenwich and Aston University, are also likely to have been attracting those who had not previously considered postgraduate study. Projects were unanimous and forthright in pointing to the negative consequences of PSS timing on their capacity to recruit to scholarships. They consistently argued that launching the scheme part-way through a PGT admissions cycle diminished the impact they were able to have. To some extent, similar timing issues apply to PSS2. In both cases, a longer lead-in time would have helped all projects to meet their targets and can be expected to have created even stronger demand.

5.18 Based on the data available, there was little indication of prospective PGT applicants 'shopping around' for the most financially attractive scholarship package among PSS projects. An applicant who presented with certain background characteristics commonly used across PSS could potentially have received markedly different sizes of scholarship in different institutions. They could have acted highly strategically by placing several applications with different institutions in PSS before opting for the highest payer. Students based in London, where there were a number of relevant PSS projects, or in the north of England might easily have been able to do this. London-based projects report that they did not see these patterns of behaviour

and there tended to be good take-up of offers made, with the small number of decliners mostly citing other reasons for turning down an offer. The Sheffield consortium, which had identified multiple scholarship applications from single applicants across the six fairly closely located institutions as a possible risk factor, undertook some limited analysis across its scholarship applicant pool. This found almost no such behaviour taking place. Only the University of Oxford and UCL reported students declining offers to study elsewhere, noting a small number had accepted alternative offers from elite universities, including overseas.

5.19 The apparent lack of a financial yield maximisation strategy on the part of applicants perhaps suggests that non-financial factors are also very important in the application decision process. Firm evidence on the extent to which PSS award holders move institution between first degree and PGT study will not be available until analysis can be done of the HESA Student Record 2014/15. However some projects pointed out that interest most commonly came from their own students, who showed little apparent inclination to shop around.

5.20 As an example, Greenwich deliberately focused on recruiting their own final-year undergraduate students. This approach was adopted to get around the shortened PSS timescale and out of a conviction that it would be more effective than conventional marketing techniques – a strategy which turned out to be justified. In purely financial terms, a student resident in London who accepted a place on the University of Greenwich scheme (60% fee waiver) would objectively have been in a much better financial situation if taking up a place at UCL (full fee waiver and £14,000 stipend). That there was little evidence of this happening suggests something about potential PGT students' decision-making 'horizons' and preferences and perhaps the extent to which they seek out (or receive) information, advice and guidance on their choices.[15]

Student views on the effect of awards on PGT enrolment

5.21 PSS has enabled graduates who could not or would not otherwise have participated in PGT study to enrol. That is a clear and consistent message from research undertaken by projects with their scholarship holders. Students from low-income backgrounds were surveyed or interviewed by UCL, Sheffield, Kingston, King's College London, Imperial College, Greenwich, Essex and Aston. All projects reported the same finding: that PSS funding was critical to the award holder's

[15] Research conducted for the Sheffield consortium saw some evidence of students moving from less selective to more selective universities between undergraduate and PGT levels (Wakeling *et al.*, forthcoming 2015). It is possible that the more disadvantaged students recruited to PSS scholarships show quite different patterns of PGT choice than those who are able to participate without external funding.

enrolment. In many cases PSS award holders described in detail their personal circumstances and the financial barriers to PGT enrolment they faced. These individual stories are covered in some of the qualitative evidence published by projects; they are too detailed to repeat here, but are well worth referring to.

5.22 This is a very clear and important finding from PSS, if hardly a surprising one. It points directly to the need for the provision of funding to PGT students who lack finance from other sources in order to enable them to enrol. It also reiterates the message that there is latent, frustrated demand for PGT study from well-qualified but disadvantaged graduates.

5.23 Those projects which sought to bolster strategically important subjects also found student funding to be critical to their success. The project led by SOAS to recruit students to two-year masters degrees in strategically important languages saw very clear increases in demand and enrolment as a result of offering scholarships. Similarly, the awards offered by Brunel resulted in a significant increase in recruitment to specialist engineering degrees and, in particular, a leap in the representation of women among home PGT students in their engineering faculty. Since the students recruited were not necessarily financially disadvantaged, funding in these projects was crucial for *encouraging* participation.

5.24 Projects' research with award holders also found that a significant minority of students were unable to benefit from a partial funding award. There were a number of cases where students with a full fees and living costs scholarship stated that without it they would have had to decline their place. This was because they had no prospect of making up the shortfall. Others who had been offered a partial scholarship were reluctantly forced to decline it on the same grounds. This seemed to be particularly the case in areas with a high cost of living, especially London. There are mixed results here, however. Some of the projects which offered partial awards (e.g. the Sheffield consortium and Greenwich) did report good take-up from disadvantaged students. These are important findings because the Government's proposed postgraduate loan scheme will not provide sufficient funding to individuals to fully cover tuition fees and living costs in the large majority of cases.

5.25 It emerged from the projects' research that many full-time home PGT students are working part-time alongside their studies. Some award holders pointed out that a full living cost scholarship allowed them to concentrate solely on their studies, rather than having to devote too much of their time to paid employment to cover their costs.

5.26 The deterrent effect of undergraduate debt on PGT participation was investigated by some of the projects in their research. Here the overall message was that undergraduate debt *per se* did not seem to predict PGT access. Debt levels for

those who did and did not enrol in PGT study were similar and they did not differ markedly between PSS scholars and others where such data were available and analysed. However there was some evidence that students with very large debts were a little underrepresented. There was also a non-trivial minority of students who did report that their existing debts were a deterrent to them taking on further debt such as borrowing to fund PGT study.

The cost of postgraduate study

5.27 HEFCE will be aware that postgraduate tuition fees have risen substantially above the rate of inflation in recent years, but that the absolute size of increases has not tended to keep pace with changes at undergraduate level. There is wide variation in the level of PGT fees levied to UK-domiciled students both within and between institutions. With the exception of courses in a relatively small number of defined areas, PGT masters fees are typically lower pro rata than the cost of full-time undergraduate study for home students in most English institutions. HEFCE has undertaken preliminary analysis of PGT fees based on the HESA 2012/13 Student Record. Future data will allow the analysis of trends over time.

5.28 If postgraduate fees are considered from a cost perspective, rather than by considering the market rate, this seems odd, since masters fees 'ought' to be between 25% and 50% higher, if based on length of the programme or number of HE credits. Many institutions have been reluctant, it seems, to increase their PGT fees in the absence of a comprehensive student funding system at that level, presumably in the expectation that higher fees will suppress enrolment. Some institutions within the PSS scheme, such as Imperial College London and University College London, already have standard masters fees in excess of £10,000. Others have much lower fees, some around half that amount (e.g. science programmes at Nottingham Trent University). This means that an equal amount of PSS funding for different institutions has converted into different numbers of fee awards, for instance. It is also likely that high demand from high-fee-paying international students in many institutions and disciplines means there is less pressure to recruit UK-domiciled students which may continue to keep fee levels high.

5.29 HEFCE has previously noted a risk that the provision of postgraduate funding support via PSS could inflate fee levels. Similar observations have been made about the Government's proposed postgraduate loan scheme. There is reluctance to introduce fee regulation for PGT programmes and institutions are likely to resist this.

5.30 We know very little about the processes by which PGT fees are set for home students, nor about their effect on enrolment.[16] A study looking at immediate transition to postgraduate courses using a specially-collated database of postgraduate fees suggested that higher fees marginally affected PGT enrolments (Wales, 2013) although there were limitations in the measurements used.[17] Further research should be commissioned on this topic, taking into account the apparent tendency for degrees to be 'Veblen goods' (i.e. high expense is perceived as quality and lower cost programmes are seen as undesirable). It should be accompanied by careful and systematic monitoring of fee levels for home PGT students.

Assessing the financial situation of postgraduate students

5.31 If the recommendation in Section 4 is taken up that funding for PGT study should be targeted at home students on the basis of financial need, then a means for undertaking financial assessment is required. Many of the PSS projects used financial criteria to allocate funding to graduates from households with relatively low levels of residual income.

5.32 In discussion with PSS projects it is clear that there is little appetite or capacity for institutions to conduct financial assessments of postgraduates themselves. The reported experience of colleagues working in student financial support functions is that such assessments are both difficult and labour-intensive. Verification of PGT applicants' financial situation is not straightforward and there is substantial potential for duplication of effort, which is frustrating both for institutions and especially for applicants. There is also considerable potential for inequity because non-standard cases may be treated in different ways by different institutions. Where this is centralised and co-ordinated such inconsistencies are far less likely to arise.

5.33 As a practical solution, institutions which used a financial criterion for allocating funding to students relied on previous SFE (or equivalent) assessments. This may comprise confirmation of a full or partial maintenance award (under the current funding arrangements) or other evidence of assessed household residual income. Where a PSS applicant had recently graduated from the same institution

[16] HEFCE provides some direct funding for postgraduates through its teaching funding stream, although this has changed recently to focus on students in Price Groups A and B (clinical and laboratory-based science, engineering and technology respectively). It has been suggested that some specialist institutions teaching higher-cost courses in Price Group C (e.g. art schools) have seen a drop in numbers as a result of the end of direct funding support. Investigating this is outside of the scope of my evaluation, but it would be worthwhile for HEFCE to undertake further scrutiny of the effect of this change.

[17] Specifically, the tenuous assumptions that students' 'fee expectations' were derived from fee levels at their own institution; and that variations in the proportion of postgraduates remaining at the same institution for further study was a measure of price sensitivity.

then financial assessments were often already on file. One institution – Imperial College London – limited the scope of its scheme to recent graduates (2011/12 and after), partly on the basis that an existing assessment could be provided for these students. For applicants who have not previously attended the institution to which they have applied, or who graduated some time ago, such information will not be readily available. Some applicants will have discarded or lost copies of their most recent assessment. There is also potential for fraud if applicants are asked to provide the written evidence themselves.

5.34 Two possibilities arise. If institutions were to conduct financial assessments themselves, they could be given access to the most recent Student Loans Company (SLC)/SFE assessment for a student on request, where it exists (potentially via secure remote access to SLC/SFE databases). In earlier discussions, it was felt that issues with SLC data were substantial enough to rule out this option. There are no data available for a significant proportion of full-time home undergraduates – around 40%, who do not apply for a means test. There are also gaps in coverage for part-time and EU students. The meaning of this lack of application is not obvious: it might be that individuals or families are certain that they are beyond the threshold to receive any support and hence do not bother to apply. Others may wish to avoid debt or consider that their assessment will be so small it is not worth the effort. Furthermore, conversations with HEFCE analysts revealed that around 40% of those who do apply report a household residual income of £0 – this is unusual and needs to be better understood. It is recommended that HEFCE undertake a more detailed investigation of SLC data on household residual income and its connection with other key widening participation indicators. Such investigation should address the following questions:

- What are the characteristics of undergraduate students for whom no SLC assessment is held?

- What are the characteristics of undergraduate students for whom household residual income is assessed as zero?

- How does assessed household income vary by key widening participation indicators?

- Does progression to PGT study vary according to household residual income?

5.35 A second possibility is centralisation of PGT financial assessment. My recommendation is that a co-ordinated, centralised approach to financial assessment is preferable, for the following reasons:

- A centralised system can adopt more robust approaches to assessment and consistency of interpretation (which may, depending on other decisions taken, need to extend to EU students).

- A centralised system is more efficient than the same assessment being made multiple times by different institutions (where a postgraduate applicant makes multiple applications).

- The assessment infrastructure is already in place.

- *From the point of view of the applicant*, a centralised system reduces the bureaucratic burden faced in applying for support. Given what we know about applications by underrepresented groups at undergraduate level, this is likely disproportionately to discourage those from such groups. It will reduce the administrative overhead for institutions too, but this could be considered a useful side effect rather than a compelling reason for centralisation.

5.36 An alternative would be to explore possibilities for linking to PGT applicants' HMRC/DWP records in lieu of assessment. The legal foundation for such linkage now exists. It could potentially provide up-to-date and reliable data on applicant income for financial assessments and would be particularly useful for those who graduated from their first degree two or more years previously. Such an undertaking is likely to have complex legal, financial, political and technical implications which may make it unfeasible or unpalatable, but these should be investigated, even if briefly.

A national scheme, a distributed scheme or a hybrid?

5.37 PGT education is a complex and multi-faceted activity. Prior evidence and the experience of PSS reinforces this message and points to the importance of other factors, not simply finance, in influencing PGT participation. Clearly funding is important; it is arguably *the* major influence, but it is not the *only* factor and its relative importance will vary according to context. This complexity, and the experience from PSS to date, together strongly indicate that **a single 'one-size-fits-all' approach to addressing PGT participation and development will not be successful. A funding solution is necessary, but not sufficient.**

5.38 In relation to PGT student funding however (Material factors, Figure 4.1), simplicity is preferable to a diverse and devolved funding system. PSS has operated a devolved model. This has been successful in many cases, but it is inconsistent, inefficient and potentially less successful than a uniform scheme. The evidence from an evaluation of the former National Scholarship Programme supports this

approach. There, devolution and diversity led to confusion among students, less than optimal targeting of funding, and deadweight (Chowdry *et al*., 2012).

5.39 Based on my evaluation of PSS, my recommendation is for a standardised national scheme of targeted financial support for financially disadvantaged students in order to widen participation. Preferably this would take the form of non-repayable grants or bursaries. Other options could be considered however, such as an enhanced loan for the financially disadvantaged.[18]

5.40 There is a need to provide support for and incentivise other kinds of PGT development seen in PSS. The initiatives described in Parts C and D are more conducive to a devolved approach, perhaps on a project-funding basis. I am thinking in particular here of non-means-tested support for students in tightly defined strategically important and vulnerable subjects; and of support for innovation in PGT education, as seen in some of the PSS projects.

5.41 Support for industrial strategy priority areas is also important, but separate from funding to widen PGT participation. Here Government and HEFCE should be looking to explore potential overlaps with related investments which could be exploited to mutual benefit (see the discussion of Level 7 apprenticeships in Section 7). Employer investment should also be encouraged, especially since such funding has been somewhat neglected in most recent discussions of PGT funding. This area offers the most potential for a more hybrid approach, building on bottom-up where local and regional partnerships employer-institution partnerships of the kind which have emerged through PSS, and in other projects such as 'Making the Most of Masters' in Scotland.

KEY POINTS

- The size, scope and purpose of different scholarships varied considerably across and sometimes within projects.
- There was some association between size of award and student demand, but this was not consistently or always strongly the case.
- General schemes were more popular than very specific ones for particular programmes, for instance. Overall, PSS scholarships were substantially oversubscribed.

[18] Based on the principle that earlier educational interventions are more effective, reversing the decision to convert maintenance grants to undergraduate students into loans would be preferable to extending further finance to postgraduates.

- PGT applicants did not seem to be 'shopping around' for the most lucrative awards.

- Research undertaken by projects showed that a substantial proportion of PSS award holders were clear that they could not have participated without their scholarship.
- Funding for students was also critical for encouraging enrolment on strategically important and vulnerable subjects PGT programmes.

- Some financially disadvantaged students who had been offered partial funding were obliged to decline their place since they had no means for making up the shortfall.

- Part-time working alongside full-time PGT study emerged as very common.

- On the whole, existing debts did not seem to be a barrier to PGT study for most students.

- Home PGT tuition fees tend to be lower than for undergraduate programmes, which is paradoxical. The deterrent effect of fee levels is unclear.

- Should assessment of PGT applicants' financial circumstances be required, a centralised system for achieving this is recommended. A simple uniform funding scheme is preferable to a devolved one.

6 NON-FINANCIAL INTERVENTIONS: MENTORING, INFORMATION, ADVICE AND GUIDANCE

The case for non-financial interventions

6.1 There is a clear message from PSS that funding support is vital to enable certain students who are currently excluded from PGT study to participate. There is also a clear message that funding alone is not sufficient. Confirming – and extending – earlier findings for HEFCE on the importance of information in PGT student choice (Mellors-Bourne, Hooley and Marriott, 2014), PSS shows that widening and expanding access to PGT study also demands better advice and guidance, work on student confidence and retention. In contrast, almost all of the focus in public debate about postgraduate participation has been on financial barriers. We know that the barriers at undergraduate level are principally about prior attainment rather than aspiration; and that in the early-specialising English education system, making the 'right' choices is important. Research findings on access to postgraduate study also emphasise the importance of a good degree (2.1 or better), first-degree subject discipline and first-degree institution on PGT participation. Socio-economic background and finance are present as barriers/enablers, but they are by no means the only apparent factor. The fact that women are consistently less likely to progress to PGT than men, holding discipline and degree classification constant suggests other kinds of decision-making than rational economic choice are operating (HEFCE, 2013b; Wakeling and Hampden-Thompson, 2013). Findings from Futuretrack research commissioned by the Sheffield consortium (Ellison and Purcell, 2015) corroborate earlier separate results from HEFCE's and my own research which show students from disadvantaged socio-economic backgrounds are *more likely to aspire to but less likely to achieve* entry to PGT study. Finance may provide part of the explanation, but it is also likely that information, advice and guidance plays a part too, especially if such students find themselves on the 'wrong track' to attain a PGT place.

6.2 Within PSS, a set of activities have been funded to investigate these areas and try out new initiatives. Many of these build on or adapt activities at undergraduate level. Several projects have involved offering mentoring support either to new PGT students or for potential PGT applicants. A few have looked at advice, guidance, outreach and taster events. On the whole however, this latter aspect of increasing participation is somewhat underemphasised within PSS, meaning there remain gaps in understanding. Some projects which have not involved information, advice and guidance have pointed out that knowledge of and confidence about PGT study has been lacking among their PSS award holders.

6.3 Support should not be limited to securing entry to PGT programmes. PSS projects have noted a need for ongoing support during PGT studies. This can cover issues of academic confidence and induction as students adjust to the challenge of masters-level study. Mentoring and peer-to-peer support has been a popular approach to this, but is not the only option. Retention on PGT programmes is not currently well-understood and there is virtually no research literature on this topic. At undergraduate level there has been a shift in thinking about access and widening participation towards retention and success, symbolised by the recent synthesis on this topic published by HEFCE (Mountford-Zimdars *et al*., 2015). Again, very little is known about outcomes for PGT graduates.

6.4 These omissions are reflected in the absence of a support infrastructure for PGT students which PSS has highlighted (and which I return to in Section 11 below). PSS has led to the appointment of the UK's first graduate access manager. It may also have led to the appointment of the first PGT specialist careers advisor in an English university.

6.5 Better non-financial interventions and on-course support is vital if we are to widen PGT participation. This is a set of activities which covers the aspects of PGT widening participation depicted in 'Academic' and 'Discrimination/aspiration/choice' rows of Figure 4.1. However the benefits of work in this area will extend more widely than just to underrepresented students. They have the potential to expand and enhance PGT study for all.

6.6 There is evident enthusiasm and a will to engage with this agenda at the 'coal face' within institutions, especially among professional staff. I have seen this repeatedly at first hand within PSS projects, but also from other institutions not funded through PSS. This needs to be encouraged and provided with a framework and external impetus for development, but in a way which learns the lessons of AimHigher. The cessation of PSS support for information, advice and guidance activity will put pressure on widening participation offices if they need to provide additional activity without extra resource. With finite funding for such activity, care will be needed not to undertake PGT work at the expense of undergraduate widening participation activity.

6.7 There is also a need to promote the benefits of such activity, including widening participation to PGT, to academic staff. Many academic staff have been enthusiastic leaders and participants within PSS. However, this is a self-selecting group and work within PSS projects has thrown up a lack of understanding or even resistance to the idea of PGT widening participation, based on a misconception of a post-first-degree 'level playing field'. In particular, it is important to overcome the received idea that the only issue in access to PGT study is funding.

Information, advice and guidance

6.8 HEFCE has invested resource and effort in this area through its separate Postgraduate Information Needs work, leading to the identification of areas for development and prompting moves to create a single information portal, *Steps to Postgraduate Study*, which was launched in August 2015.[19] I discuss how this relates to recruitment and admissions in Section 10. Many of the recommendations in the Postgraduate Information Needs report which prompted creation of this website (Mellors-Bourne, Hooley and Marriott, 2014) seem obvious and common sense; they will hardly be a surprise to university admissions specialists and marketing directors. However, the relative lack of attention paid to PGT processes within universities revealed through PSS shows the recommendations should be taken very seriously. In addition to centralising information provision, a portal (or a national application system, mooted in this report) could also provide a hub around which to organise PGT advice and guidance.

6.9 The widening participation and fair access elements of advice and guidance cannot be addressed by a portal, however. There have been *some* such outreach activities in PSS but this does not come close to the scale seen in undergraduate widening participation initiatives such as through the former AimHigher programme and its successors. Students within PSS often had limited sources of information. While some were well-informed and were only blocked from realising their PGT ambition by lack of funding, others had found it difficult to know where to look for information and advice. PSS award holders interviewed in different projects compared this situation to the undergraduate admissions process where there was much more advice and guidance on how, why, when and where to apply.

6.10 Although the volume of advice and guidance activities undertaken in PSS was relatively low, there are some initiatives to note. Whilst each is interesting and potentially useful, they do not together make a coherent programme of piloting and investigation. No project had advice and guidance as its central concern (although see below on mentoring), meaning where projects investigated this area it represented a minority of spend and effort. We should be mindful here of the conclusions drawn about the effectiveness of the AimHigher programme intended to widen participation at undergraduate level. Its funding was withdrawn in part because it was considered unable to provide clear evidence of positive effects. Careful pre-planning and co-ordination of interventions is preferable (see the discussion in Section 3 above).

[19] See: http://postgradsteps.hefce.ac.uk/

6.11 Advice and guidance activity in PSS included:

- The University of Leeds, as part of the Sheffield consortium, convened advice and guidance activity across the six participating institutions. This involved taster and information events for current undergraduates, research with academic staff and students about their advice and guidance practices, liaison with Job Centres and audit of existing information provision. It resulted in the production of a useful framework for such activity. As with the advice in *Steps to Postgraduate Study*, this can seem like common sense, but the point is that recommended practices do not currently take place.

- Aston University, in addition to the postgraduate fair already mentioned, appointed a careers adviser specifically for PGT students, marking a new departure for the university. The adviser saw over 180 students during the course of the year, including 40+ PSS award holders, and developed PGT-focused materials. Aston reports that employers often claim not to distinguish between bachelors and masters graduates (although evidence from the Sheffield consortium research suggests masters graduates do tend to have a distinctive occupational profile). Unfortunately Aston's PGT careers post will not continue after the PSS funding ceases.

- UCL, which took a relatively devolved approach to PSS, has offered over 200 spaces on taster sessions in selected faculties. They conducted an evaluation of these sessions which found that they were felt to be successful by departments which offered them and are likely to be repeated in future years. However, they also identified a need for better targeting if such events are to be used for widening participation work, as many of the participants were from professional/managerial backgrounds.

- The Bloomsbury Doctoral Training Centre's project targeted professionals, mainly in public services (education, health etc), who wished to pursue doctoral research. Their Postgraduate Diploma in Social Science Research Methods is designed to provide a bridge between professional practice and academic research, particularly for those who have been out of academic study for some time. Advice and guidance is therefore inherent to both recruitment and teaching of the programme, since part of its aim is to prepare students for doctoral study and support them in securing studentship funding for that purpose. The project has succeeded in recruiting 'non-traditional' entrants and is about to enter its fourth iteration.

- Finally, the University of Oxford offered 81 research-based internships for undergraduate students in summer 2014 intended to encourage undergraduates to consider postgraduate study in future and to provide them

with relevant experience which would enhance their chances of winning funding. Three-fifths of participants reporting developing a better understanding of postgraduate opportunities, with two-fifths having identified a topic for future postgraduate research.

6.12 Research undertaken by PSS projects confirms some of the impressions generated by project activities. Re-analysis of Futuretrack data showed that disadvantaged students were more likely to aspire to, but less likely to achieve PGT study (Ellison and Purcell, 2015). Qualitative research showed that many graduates had not seriously investigated PGT options, nor did they seem to have received information, advice or guidance about it from their university. Those who were considering it had begun their search after graduating, frequently when facing underemployment (Mellors-Bourne, 2015).

6.13 Summarising, PSS shows that there is a need for a substantial increase in information, advice, guidance and widening participation activity around PGT study. This will complement efforts in other areas, notably provision of student funding. PSS projects provide some indications of future directions on which to build. A firmer and more systematic evidence base is required, which could usefully draw on international practice in this area.[20] A useful starting point however would be to continue to borrow from techniques which are shown to be successful at undergraduate level, as some of the PSS projects began to do.

Competition as a barrier to effective outreach

6.14 During discussions with PSS projects, the tensions and paradoxes of competition and collaboration in the recruitment of PGT students have emerged as an obstacle to advice and guidance-focused widening participation activity. While not entirely unexpected, it has not previously been considered in detail. Institutions describe themselves as operating within a competitive market at PGT level. There is little open discussion of application levels, fee levels or other aspects of PGT recruitment across institutions. There is also heightened sensitivity to these issues as a result of the raised profile of 'consumer' aspects of higher education, following interest by the Competition and Markets Authority and organisations such as the consumer group, *Which?.*

6.15 Institutions compete for students at undergraduate level too, of course. The significant difference is that there is very little conflict of interest between recruiting (universities) and supplying (schools and colleges) organisations. There is strong mutual interest in collaborating to encourage students to enter higher education and rarely direct competition. In contrast, for PGT recruitment higher education

[20] There seems to have been prior activity in the USA and Australia in relation to postgraduate study.

institutions are both recruiter and supplier of students. There are, then, sensitivities about institutions promoting scholarships and postgraduate opportunities to potential (or indeed actual) competitors. These sensitivities may be compounded by existing unequal flows of students between different kinds of institutions and their connection to perceived status differences.

6.16 This is especially problematic since we know that there are institutional 'cold spots' for postgraduate participation which, considered objectively, would be prime candidates for outreach activity. PSS institutions have found these tensions difficult, including within consortia and in particular locales or regions (e.g. where one institution is PSS-funded but others are not). While there has been some variation across the sector in the willingness to collaborate, my impression of the general trend over the course of PSS has been towards more collaboration. The PSS consortia have worked well together and have come through initial difficulties of the kind which affect any large, multi-organisation project at the outset.

6.17 In the longer term however, tensions around competition pose a threat to initiatives to widen participation and grow demand more generally at postgraduate level. If strategies employed at undergraduate level are migrated to postgraduate widening participation activity, then 'starting early' will also mean being 'destination blind'. In terms of undergraduate participation, there is a broad, if somewhat uneasy consensus among widening participation practitioners that outreach activity with younger groups should be primarily concerned with promoting higher education in general, with entry to a specific institution secondary. Creating a similar consensus at postgraduate level will take time and will be hampered by the structure of the PGT market.

6.18 Undergraduate recruitment to date has been a 'zero sum' activity – there has been (until 2015) a fixed number of places and institutions have not been able to recruit beyond a quota, of sorts. PGT recruitment is potentially unlimited, which means institutions may have more to gain or lose from outreach activity at this level. Academic departments and schools are aware of these tensions. Institutional reward structures encourage the emphasis of intra-institutional postgraduate opportunities. Although individual academic staff and careers services more generally may not always pay heed to these, anecdotally there are often policies against displaying recruitment material for postgraduate courses at other institutions, for instance.

6.19 Identifying solutions to this issue is tricky. To some extent familiarity breeds trust: institutions which have worked together have recognised that this is much less of a competitive threat than initially feared and indeed that co-operation can be mutually beneficial. Additionally, I offer two further suggestions:

i. Create a culture in which encouraging postgraduate study is a national and institutional priority, linked to the widening participation agenda more generally. Regrettably, increasingly 'what counts is what is counted', so the introduction of selected metrics to measure take-up of postgraduate study will help to underwrite shifts in attitude and attention.

ii. A national application system, coupled with the changes proposed under HEFCE's Postgraduate Information scheme, would give potential postgraduates a much firmer basis on which to investigate their options (see Section 10).

6.20 My final point is that the structure of PSS is institution led, meaning that their voices predominate in reporting outcomes. Often universities' interests converge with those of other stakeholders, but not always. The provision of advice and guidance may be one area where the interests of students are not necessarily aligned with those of universities. Giving academic staff a more prominent role in providing advice and guidance on PGT study to undergraduates and/or strengthening advice on PGT progression in university careers services may counterbalance the tendency to institutional self-interest. One project reported that collaboration was much easier to achieve between different institutions' careers services since these areas did not perceive themselves as in competition with each other.

Mentoring

6.21 There was substantial work within PSS involving mentoring of different kinds. The consortium led by the Royal Veterinary College took mentoring as its focus and several other projects include a mentoring aspect. The basic idea was to provide peer-to-peer support, either as a means of demystifying the PGT experience to potential PGT students or to support PGT students through their studies, aiding retention and improving outcomes. Mentoring was generally evaluated positively by those taking part as mentors and as mentees. It is difficult to judge the impact it has had on access and retention, but the cost of continuing mentoring programmes is low and there are few apparent disadvantages.

6.22 The Royal Veterinary College project involved a consortium of nine institutions, drawing on the London-based 'Access HE' network. The consortium consisted principally of post-1992 universities and specialist institutions, many of which have little tradition of graduates entering PGT study. For instance, two of the disciplines covered, veterinary medicine and fine art, have very low rates of progression to PGT programmes nationally. The central idea in this project involved existing PGT students acting as mentors for undergraduates from groups underrepresented in higher education. The mentors were not intended to evangelise about PGT study to the exclusion of other graduate destinations, but instead to

explain how they accessed their current programme, what they do on their programme and so on. The consortium intended to recruit and train 20 mentors in each partner institution, each being responsible for around five mentees. However there was difficulty in recruiting mentees and this led to some patchiness of implementation and success across the participating institutions.

6.23 The University of Essex's project had a similar rationale. It offered two routes for the award of a PSS scholarship, one of which involved mentoring of undergraduates. The initial target for such awards was 100, but demand for the mentoring scholarships substantially outstripped that for placement scholarships. Mentors were PSS-funded PGT students; mentees were undergraduates. At this point it is too early to determine what the impact of mentoring was on undergraduates' outcomes. Three-quarters of the mentors thought they had developed useful skills for subsequent employment from participating in the scheme.

6.24 Brunel University, through the Women into Engineering strand of its project, provided its PSS scholars with industry-based mentors. Here the intention was to improve PGT retention and outcomes rather than access. The response from employers to this initiative exceeded expectation and early indications are that is has been very successful overall. Brunel will be employing a full-time mentoring manager to continue this activity.

6.25 UCL used existing PGT students as mentors to support the PGT application process in its Faculty of Brain Sciences, including assistance with enquiries and on applicant open and visit days. The experience here was typical of the overall experience – where students engaged with mentoring it was judged by them to be helpful, but it is difficult to point to more objective measures of success. One useful piece of feedback from UCL's PSS award holders is that they sought support with some of the non-academic aspects of the PGT experience, including London life and 'fitting in' to the institution. PSS students in the Sheffield consortium also reported a benefit from the informal peer support they received from fellow members of their PSS cohort. In contrast, students in the Essex scheme reported that a mentor on a similar programme was more helpful.

6.26 King's College London used employing PhD students as mentors for its PSS scholars, again to support retention. Like other projects, this was judged a success by those who took part. Localised 'insider' knowledge passed on by mentors was reported as the most useful aspect. The need to provide training and support for mentors was highlighted. Participating departments were keen to continue the initiative, but lack of funds may prevent this.

6.27 Finally, Oxford's 'Springboard' programme, while not mentoring as such, was intended to support the professional development of female PGT students. This ran in spring 2014 and was evaluated very positively indeed by participants. It will continue to run biannually in future years, with sponsorship secured for 2015/16.

KEY POINTS

- Non-financial aspects of PGT participation are vital and need to be considered alongside financial support.
- Interventions can usefully build on undergraduate widening participation work and should cover retention and success, not just access.
- Better provision of information is needed, drawing on HEFCE's Postgraduate Information Needs work.
- PSS confirms a need for a step shift in provision of advice and guidance about PGT study and to PGT students – and a need for more in-depth investigation of this area, which was underemphasised in the PSS projects.
- Competition between institutions for PGT students can be a barrier to effective outreach. PSS shows that collaboration can be effective and overcome these anxieties.
- Peer-to-peer and employer mentoring were popular interventions in the PSS programme. They were generally well-received and many look set to continue into the future, but it is difficult to be certain about their impact.

PART C
Taught postgraduate programmes

7 EMPLOYABILITY AND PGT PROGRAMMES

Employability projects within PSS

7.1 A strong thread through a number of PSS projects is concerned with the employability of graduates and postgraduates, frequently in connection with particular advanced sets of technical skills. The relevant projects in PSS addressed one or more of the following aims:

- To enable graduates to find suitable employment through a structured programme of academic study and workplace-based learning and experience and/or internship

- To better understand the requirements of employers in relation to PGT courses, especially 'added value'

- To promote the benefits of PGT graduates to different kinds of employer (i.e. particular sectors or types, like small and medium-sized enterprises (SMEs))

- To address particular skills shortages in certain industries or professions.

7.2 Government, through BIS in particular, has shown a keen interest in this subset of projects and in some cases has been discussing early outcomes directly with those projects.

7.3 In many cases PSS projects are building on existing strong relationships with employers, typically in their region, investigating how such relationships can be taken on to the postgraduate level. It should be noted that there is a defined engineering 'skew' to the PSS projects operating in this area. The projects at the University of Essex and Nottingham Trent University had a broad focus; the University of Worcester targeted its local/regional service sector along with entrepreneurship; and Lancaster University's project was concerned with 'big data' science and applications. Other projects involving activity along these lines (Aston, Bath, Brunel and Derby) were mainly concerned with engineering. UCL also had a small number of programmes with employment placements (again in engineering). Finally, the University of Oxford ran a non-credit-bearing internship programme for PGT students.

7.4 The form which employability activity took varied across the programme. Some programmes involved employer input in taught modules as well as a placement on fairly specialised degrees (e.g. Bath, Brunel, Derby, Lancaster); some had a placement related to the programme (Nottingham Trent, Worcester); whereas

others offered a placement option across a broad range of programmes (Essex) or an extra-curricular internship (Aston, Oxford).

An emerging partnership model in knowledge transfer and funding?

Employer attitudes to PGT

7.5 Public debate about higher education funding in general and PGT in particular has tended to emphasise the role of contributions from the state and from students (and their families). To a lesser extent the role of universities has been discussed. Very little attention has been given to the contribution of employers, although HEFCE has suggested that declining employer sponsorship, especially large public-sector employers, may help to explain the decline in part-time PGT enrolments witnessed recently in England (HEFCE, 2013a). There are examples, however, of employers expressing a strong interest in PGT, particularly in certain industries where there are calls for a more highly-skilled labour force. Such calls prompted BIS' aerospace masters funding initiative in 2013. However, unlike the situation with research degrees, where industry funding in certain disciplines is extensive and enduring, there is far less evidence of such commitment to PGT.

7.6 Evidence shows employers' views on PGT from PSS are mixed. Some show evident commitment and indeed strong enthusiasm for masters-level study. Other employers actively reject engagement with this level. Perhaps the largest group of employers shows some lack of understanding of what PGT graduates might offer. There is variation both within and across sectors and according to the size of employer. Such diversity is perhaps not especially surprising.

7.7 At least three PSS projects included a direct element of research on employer views. Again, the results were mixed. The Sheffield consortium interviewed 20 employers, who expressed very positive views on PGT study. Nottingham Trent undertook extensive market research with employers who indicated that flexibility in delivery and the scope to customise programmes for their requirements were highly desirable. Kingston attempted a very large survey of a range of businesses but received a very disappointing response rate (less than 2%). This in itself may indicate a lack of engagement with PGT study. Some employers who did respond expressed disappointment with postgraduates they had employed previously.

7.8 The quality of the evidence in this area through PSS (and more generally) is poor, on the whole. Studies are often small scale and often do not question the validity of employer views. There is much 'grey' literature, often produced with a particular agenda already in mind by different lobby groups and consultancy organisations; universities too of course have an interest in promoting a certain view of the value of PGT study. The key paradox is between a kind of 'deficit' account of

PGT programmes and graduates on the one hand, and the higher earnings and levels of employment of those with postgraduate qualifications on the other.

7.9 There are two clear issues regarding employer views however. One is that the value of PGT study could certainly be better communicated to employers in general. The second is the apparent decline in employer sponsorship in recent years. This may indicate an increasingly negative assessment of PGT programmes and graduates; alternatively it may simply be that training and development budgets are first in line for cutting during tough economic times.

Partnerships with employers

7.10 PSS projects have the potential to demonstrate two distinct contributions in this area, then. First, they have further explored and attempted to stimulate the interest of employers in PGT students and graduates. This involved working with employers of different sizes, in various sectors, in some cases providing 'exposure' to PGT for the first time. This was often the case where projects were working with SMEs, for instance. Secondly, the projects are experimenting with a **partnership model** which involves the student, the institution and the employer.[21] This partnership covers the intellectual and pedagogical aspects of PGT, especially the content of the curriculum, skills development, work-based learning and knowledge transfer. It also covers the *funding* of such programmes, where through PSS the partnership becomes *four*-way, adding the state to the aforementioned three parties. A common funding model adopted in PSS saw the tuition fee for a PGT programme covered by a combination of HEFCE funding through PSS and institutional match-funded waiver; a placement salary/bursary funded by the receiving organisation;[22] and therefore residual costs borne by the student.

7.11 A number of advantages have emerged from this model. Students are seeking, in addition to the advanced and critical research-informed knowledge and skills they develop through the taught component of their PGT programme, actual work experience which allows them to apply these in an authentic situation. Students responding to surveys about their motivation for PGT study consistently rate enhancing employability as one of their principal objectives (e.g. Ellison and Purcell, 2015; Wakeling, Hancock and Hampden-Thompson, 2015). They see a lack of work experience as a barrier to obtaining graduate-level employment. Initiatives to improve work experience opportunities at undergraduate level are gathering pace

[21] Recent research on knowledge transfer between universities, students and employers in Norway and Denmark found that such arrangements worked best where all parties were treated as equal partners in the enterprise (Nielsen and Cappelen, 2014).

[22] In some cases this is covered by the project, not by the employer. This to some extent reflects the sector in which an employer is based: third sector organisations can often offer placement opportunities but rarely cash, for instance.

in UK higher education through extensive use of internships (e.g. Helyer and Lee, 2014). Employers make several complaints, including new graduates not being work ready, and facing acute shortages and recruitment difficulties in particular areas.

7.12 There can also be reluctance to use PGT to develop existing employees out of fear that such individuals will become highly valued in the labour market and take their accumulated knowledge and expertise (and the financial investment made in them) to a rival employer. In Worcester's project, employers instead saw supporting their employees through part-time PGT study as a means to develop and reward them in the context of a sub-regional labour market where it could be challenging to retain highly-skilled employees.

7.13 Across the PSS programme, those projects which involved employability and working with employers reported that PSS had enabled them to develop relationships with new organisations and to extend existing relationships to postgraduate level. In some cases, especially where there were significant numbers of students requiring placements, this meant substantial numbers of new relationships. For instance, Lancaster placed 45 students in 30 organisations, 18 of which were new to the University.

7.14 Developing, maintaining and extending relationships with external organisations such as employers and sector bodies is specialist work and resource intensive. Universities can frequently have many different relationships with an organisation and managing these effectively can be difficult. Individuals are important: a change in staffing at a partner institution can also easily 'reset' the relationship. There were good examples from PSS of the benefit of employing staff specifically charged with this form of liaison.

Benefits for employers

7.15 In articulating their reasons for participating in PSS projects, employers have suggested they receive several benefits. Having an influence on the kind of curriculum developed on PGT programmes is high on this list. Of course this needs to be a careful negotiation, starting from the principle that universities are providing an appropriately broad education for the topic, driven by an academic agenda and not today's transitory training need. However, for many disciplines, especially the more applied topics featured most strongly in PSS, the ongoing dialogue between theory and practice is essential. Thus such discussions with employers do not need to imply a narrow utilitarian agenda. Instead they can help academics to enrich the curriculum with real-life examples, which in turn enable the testing and refinement of theories and concepts. Placements become, through the supervisor-student-employer relationship, a potential conduit for knowledge transfer. Some employers participating in PSS have explicitly highlighted this benefit, noting that placements

become a means for establishing a concrete relationship with the partner university, which may then lead to other collaborations.

7.16 Lancaster University's data science project pointed to such developments, with synergistic links to its research agenda in the area, as a key motivator for its new programmes. Such aspirations perhaps sound very grand, but arguably they start to be realised through some of the detail of PSS project activity. Thus teams of students at Nottingham Trent on the Multidisciplinary Masters (MDM) programme have, during their core module project, tackled specific projects identified by partner organisations and proposed solutions. Similarly, students on Derby's creative engineering programme have worked on employer-proposed projects for their independent study module. The initiative has allowed Derby to extend its activity with existing partners to PGT level but also to expand the range of employers with which it works.

7.17 Turning to partnerships in funding, the experience in securing match funding from employers was broadly positive in PSS, to an extent that I initially found surprising and which certainly contrasts with the overall reduction in employer sponsorship for PGT study. The financial commitment required from employers varied across the projects, but generally fell into a range between £5,000 and £12,000 (concentrated at the lower end of this range). In many cases employers effectively paid a salary to the placement student. This contributes to the student's maintenance. Many employers have reported that this is a manageable level of investment, particularly if seen as a potential means of future recruitment for those operating in areas of shortage. Undertaking a standard recruitment process, involving advertising a position, possibly paying recruitment consultant fees and running a selection process is expensive. A placement offers the chance for student and employer to undertake an employment trial, with no commitment required from either side, but with added benefits for both if the arrangement becomes more permanent. Much of the experience of PSS to date corroborates an earlier project in Scotland, Making the Most of Masters,[23] which was supported by the Scottish Funding Council as part of its Learning to Work initiative to seek closer integration of PGT masters with various employers. The project, which involved the universities of Aberdeen, Edinburgh and Stirling, is now well embedded in these institutions.

Difficulties with partnerships

7.18 Postgraduate employability activity within PSS was not without difficulties and gaps. Some employers remain uninterested in recruiting PGT students. The University of Bath, for instance, in trying to engage a large multinational employer of engineers in its PSS project was met with a flat rejection on the grounds that the

[23] See: http://www.mastersprojects.ac.uk/

company preferred to recruit at graduate level and conduct its own further training of employees. Feedback from the Engineering Professors' Council among others suggested that the four-year integrated masters had emerged as the preferred training route for engineers, with the one-year taught postgraduate masters seen mainly as a qualification for international students.

7.19 The coverage of PSS in this sphere of operation was concentrated on particular industries and disciplines (especially engineering). A fuller implementation would benefit from broadening out, perhaps to include the creative industries, the public sector and so on. It may be that the model described will be more successful in some areas than others. The University of Worcester has faced mixed fortunes in its more service-industry-focused scheme. Similarly recruitment was lower than hoped for its entrepreneurship strand, which substituted business start-up for an employment placement. However, quality of output may be preferable to quantity in this regard.

7.20 A further issue is the extent to which work experience is valued because of development of particular skills, or whether it instead operates through 'signalling'. This is analogous to arguments about PGT education more generally: do such graduates develop particular sought-after knowledge or skills through their programmes (so-called human capital accumulation) or are they simply signalling their generalised ability to employers? Evidence from Germany favours the latter explanation, finding that neither work experience outside graduates' chosen field of study nor compulsory degree-based experience was beneficial to them in the labour market, whereas field-related voluntary work experience was beneficial, albeit not in the longer term (Weiss *et al*., 2014). This would favour the kind of internships trialled by Aston and Oxford, which were intended for PGT students but not credit-bearing. Some UK-based evidence might favour a human capital explanation however, since Lindley and Machin (2011) found PGT graduates more likely to report using skills and knowledge from their qualifications in their jobs and also enjoying an earnings premium. In due course, comparing the outcomes for graduates from PSS programmes with other PGT graduates will help provide further evidence on this question.

Sustaining PGT employability activities

7.21 The bottom-up response from institutions in proposing PSS projects related to employability demonstrates strong commitment to this objective. There is clearly an appetite in many institutions and disciplines to respond to national priorities and needs, especially in certain industrial sectors, and to work closely with employers and their representative bodies. Demand from students has varied somewhat, but has been strong enough for all the funded programmes to run successfully.

7.22 Keep (2014) has argued that, despite having similar policy intentions in relation to employability and industrial strategy, Scotland and England exhibit different approaches to realising this through higher education. The shift of resources from direct funding to universities to funding through student tuition fees means that there is some scope to be more directive in Scotland than in England. Scotland's existing funding of a selected set of PGT programmes and its prior initiatives around employability, such as that seen in the Making the Most of Masters programme, are evidence of this. Providing direct support for the kinds of PGT employability activity in PSS would be one way for England to support its policy goals in this area. As Government support through PSS has now ceased, thought is needed as to how such activity can be supported in future. It may be possible to utilise existing separate funding streams. I discuss one such possibility – postgraduate-level apprenticeships – in more detail below. Another possible policy lever is to provide other marginal incentives in order to convince employers to participate in this kind of PGT provision. Tax incentives are an obvious option. Another might be to consider scope for loans on generous terms *to employers* for supporting PGT study.

7.23 The PSS projects themselves represent a useful resource for illustrating to other universities and employers what can be achieved in this area and how it might be approached. Projects should be commended for the dissemination work they have already done here.

Postgraduate-level apprenticeships

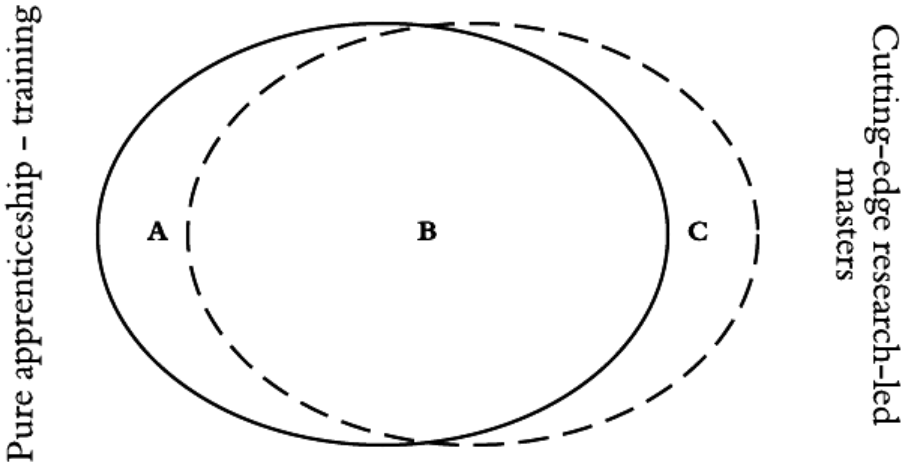
7.24 In the 2014 Budget, the Chancellor announced that apprenticeships would be extended to encompass 'Level 7' or 'postgraduate' apprenticeships. Although this commitment has been reiterated, little further clarification or detail has yet emerged.

7.25 Looking at PGT employer-facing programmes and at apprenticeships as someone new to the area, I am struck by the clear overlap between the Government's intention in providing a framework for postgraduate apprenticeships and the organic, bottom-up developments in relation to employability and sectors skills shortages emerging from PSS. Listening to those involved in PSS and in apprenticeship policy, as well as employer representative bodies and PGT students, there are obviously objectives in common. My judgement is that different languages and structures employed in universities and in apprenticeship policy are obstructing the achievement of the shared aim of improving and extending advanced skills development and deployment.

7.26 Figure 7.1 gives a notional representation of the overlap. The dotted line ellipse represents activity in PSS, whereas the solid line ellipse is that targeted by Level 7 apprenticeships. In a few areas there is no overlap. An example might be

accountancy apprenticeships which are likely to be highly technical, requiring the mastery of a set of prescribed conventions and techniques for a range of complex situations. This is represented by Sector A in Figure 7.1. Sector C also does not overlap with an apprenticeship approach even though it would fall within PSS. This covers activity such as Lancaster's data science programme which is novel, research-led activity and where few common professional standards yet exist.

Figure 7.1: Venn diagram showing indicative overlap between apprenticeship and PSS activities



7.27 This leaves a significant space in the middle (Sector B) where there is potential overlap. Here there is significant potential for students and universities to work very closely with employers, with students spending substantial periods embedded with a particular employer or even (as with Derby's project) as a quasi-employee, or at least in a liminal space between employee and student. However, unlike the accountancy example, rather than employers knowing precisely what they need and simply training the student/apprentice to meet pre-defined standards and competencies, in many areas the challenge is to develop the skills to *bring novel solutions to novel problems*. If we use engineering as an example, it seems to me that masters-level engineers need to draw on and implement the latest cutting-edge knowledge from a continually evolving field. At masters level, one cannot simply 'learn what to do' but must often *work out what to do* in novel situations drawing on the latest ideas and findings, innovating at times. This is likely to comprise the majority of 'Level 7' type work in the future. The technical model envisaged in Level 7 apprenticeships (Sector A) is likely to be low-volume niche activity in comparison. Judging by existing Level 7 apprenticeships to date, there is also a concentration in very large employers. PSS has, by contrast, involved a range of kinds of employers, including SMEs.

7.28 There is also a question of what will be most attractive to potential apprentices/students. Numbers progressing up the apprenticeship ladder all the way to Level 7 are likely to be small for the foreseeable future. Conversely there are likely to be many graduates who seek to expand their knowledge and skills in a manner which involves practical and sustained work experience. Indeed, the success of some of the PSS projects in this area is showing just that.

7.29 Evidence from PSS also indicates that graduates favour easily recognisable programmes. Hence the idea of a stand-alone postgraduate apprenticeship, in my opinion, will have substantially less appeal to them than a masters programme which has a significant 'apprenticeship' aspect.

7.30 Merging the employability aspects of PSS with funding streams for Level 7 apprenticeships could prove a neat way to square this circle. A Level 7 apprentice could thus complete an integrated apprenticeship and masters degree working closely with an employer, who would contribute to their funding.

KEY POINTS

- A partnership model for funding and knowledge transfer emerges, which involves higher education institution, employer and PGT student.
- Employer attitudes to PGT education vary from enthusiasm to antipathy, with much ambiguity and ambivalence in between. The overall quality of evidence of employers' views is weak.
- PSS enabled project institutions to develop existing relationships with employers to PGT level and to create new relationships.
- Employers appreciated the opportunity for an input to the curriculum via PSS, for knowledge transfer and for the direct recruitment of talented and highly skilled employees.
- On the evidence of PSS, employers seem willing to contribute financially to these developments. Sustaining momentum from PSS in this area would benefit from further incentives, which might include further project funding or tax breaks for employers.
- PSS activity in this area was concentrated on particular industrial sectors and disciplines and may benefit from broadening out.

- There is overlap between PSS activity and the Level 7 apprenticeship agenda, with scope for integration.

8 PGT ACADEMIC MODELS AND INNOVATION

The UK PGT model

8.1 As noted elsewhere in this report, PGT education is a complex and diverse activity. There are a range of different kinds of PGT qualifications with different names, serving different purposes, having different lengths, offered in different ways and appealing to different kinds of student. Nevertheless, perhaps the most recognisable PGT qualification is the one-year, full-time equivalent, masters degree. The British postgraduate masters degree is notably shorter in duration than that in other countries, where the modal length is two years, but it fits recognisably into the middle of the so-called 3+2+3 LMD[24] model adopted across Europe and beyond through the 'Bologna Process'.

8.2 British masters degrees typically comprise a majority taught component and a dissertation or mini research project which counts for a substantial minority of the assessment. The content and aim of masters differ, with some intended to prepare students for further research and/or doctoral study and others acting as a 'conversion' programme for graduates of different disciplines (e.g. the MBA) but with many intended to give graduates particularly specialised and/or advanced skills and knowledge.

Innovations to the PGT model

8.3 Within the PSS programme, several of the projects focused on development of news masters programmes in defined areas. For example:

- Brunel University: MSc Structural Engineering
- University of Bath: MSc Modern Building Design
- Institute of Education (Bloomsbury DTC): PG Diploma in Social Science Research Methods[25]
- Lancaster University: MSc Data Science
- SOAS consortium: various MA programmes across Arabic, Chinese and South Asian languages
- University of Worcester: MA in Business Innovation and Leadership.

8.4 In some of the cases listed above, although the programme has relatively traditional objectives, there is innovation in the use of the dissertation or project

[24] This model comprises a three-year full-time equivalent 'first cycle' degree, a two-year 'second cycle' and three-year third cycle degrees. The 'LMD' acronym stands for 'Licence, maîtrise, doctorat', which translates into English (approximately) as bachelors, masters, doctorate respectively.
[25] Obviously this is a diploma not a masters degree, but it is taught at masters level.

element to provide work-based learning. This is the case for Bath, Lancaster and Worcester and also applies to the projects at Derby, Essex, Nottingham Trent and Oxford. This kind of innovation was discussed in the previous section.

8.5 Two of the projects however – Derby and Nottingham Trent – feature particularly interesting innovations to the academic model and perhaps the purpose of the masters degree which are worthy of further note. Innovations of form are present to a more minor extent in some other projects too.

8.6 It is difficult at this stage to be definitive about the success of academic innovation in PSS. Certainly, the new degrees which were developed with PSS funding have been approved and validated and recruited students. The outlook is more mixed for the sustainable future of the programmes, especially when PSS funding support ceases and it is too soon to determine whether graduates of the new degrees have gone on to successful outcomes. What I have to say about PSS-sponsored PGT innovation necessarily emphasises evaluation of the concepts more than their realisation.

8.7 There are some important findings about the process of PGT innovation. Projects which involved academic innovation were again unanimous in struggling with the PSS timescale. While institutions were able to deal rapidly with new programme proposals by exception in order to meet deadlines, this was far from an ideal way to approach programme development and severely curtailed the time available for effective recruitment. With a more conducive timetable, more might have been achieved.

8.8 A second important lesson from PSS about academic innovation is that it is both expensive and risky. In addition to the normal costs of writing a new curriculum, securing learning resources, staffing and launching a programme, the innovative approaches used in PSS projects require additional staffing input. This is especially the case where there is close liaison with employers and other external bodies to design the curriculum, offer work placements and so on. It also applies where there is a need to create new procedures and frameworks for novel PGT programmes which do not fit the 'normal' academic framework. Such additional investment is at risk until institutions are certain of the viability of a programme in terms of student numbers.

8.9 Work by the Innovation in Market Assurance of New Programmes (i-MAP) project for HEFCE demonstrated the risk inherent in launching new postgraduate programmes. Over half of new postgraduate programmes recruited fewer than 10 students in any given year. Only one-fifth managed to recruit 10 or more students in each of three consecutive years. Three-quarters of all students were enrolled on less than a third of the courses (Coyle and Roberts, 2012). The cost and likelihood of

failure make innovation risky. It is probably far easier for institutions thinking about new courses simply to copy what has been successful elsewhere and seek to recruit international students, since student demand there is strong. There is of course an advantage to be gained from acquiring a reputation as the leader and innovator in a particular area, but this is balanced with a risk that other institutions can put on a similar course and take away students. It will be worthwhile comparing the findings from PSS in this regard with the forthcoming findings from the second phase of the i-MAP project which are due to be published at the end of September 2015.

8.10 As a consequence of this cost and uncertainty, there is a case for continuing public support to encourage innovation by mitigating the risk. This could operate on a competitive project basis. Funding could be directed towards particular top-down themes, but with some scope for bottom-up innovations to emerge too. This need not be a very large fund in total, but it should favour projects of sufficient scale to allow full and robust evaluation.

The inverted Melbourne Model

The Melbourne Curriculum

8.11 Radical revision of the academic model is rare and, for all sorts of reasons, difficult. A recent prominent example, with special relevance for PGT, is the so-called 'Melbourne Curriculum' introduced at the University of Melbourne, Australia and led by its Vice-Chancellor, Glyn Davis. The Melbourne Curriculum draws inspiration from both North American higher education systems and from the principles behind the Bologna Process. It involves a determinedly generalist undergraduate degree, with specialisation to follow, where required, at masters level.

8.12 Unlike the British model – especially that outside Scotland – where higher education subject specialisation is early, the Melbourne Curriculum deliberately limits the number of degree programmes on offer. Melbourne offers six undergraduate degrees, down from 96 before the reform. In this way, students are obliged to cover a range of topics at undergraduate level. In North America, students are able to take modules in a range of areas, electing their 'major' quite late on in their studies if they wish. Under this system, certain professional programmes – notably law and medicine – are available only at graduate level. A rationale for this arrangement is that many graduates do not end up using their specialism in their working life and so breadth, rather than depth may provide a better general education and allow them to make more effective, fuller contributions to society and economic life.

8.13 The Melbourne Curriculum has not been without controversy and criticism, nor has it been an outright success in relation to student demand. However, it at least articulates a coherent case for the role and purpose of undergraduate and postgraduate education.

Inverting the Melbourne Model: Derby

8.14 Although they have not explicitly set out to make radical reforms to the academic model, nevertheless we can conceive of some of the PSS projects effectively 'turning the Melbourne Curriculum on its head'. That is they have taken graduates from specialist first degrees and, in different ways, sought to make generalists of them. Crucially, both do more than simply 'converting' graduates from one discipline to another.

8.15 Derby's MSc Innovative Engineering Solutions programme approaches the creation of generalists in a tightly defined way since it remains within the broad field of engineering. The intention is to develop graduates' skills and understanding in ways which use innovation to address particular engineering problems. It thus recruited students from a range of different engineering specialisms and in cognate fields. While some specialist input is offered, through modules on the defined pathways (civil and infrastructure engineering, intelligent energy systems, manufacturing and production engineering etc), the focus of the programme is on learning how to apply knowledge to innovate in relation to real work-based problems. A linked MSc in Professional Engineering offers a similar approach, but for engineers in employment who seek chartered status.

Inverting the Melbourne Model: Nottingham Trent

8.16 Nottingham Trent University's new 'Multidisciplinary Masters' (MDM) follows a similar logic, but is not limited to a single field. Here, students select a major and a minor discipline from a shortened list of the university's existing masters-level provision. Whereas the major area of study is likely to be directly related to a graduate's first degree, the minor area is more open, allowing a student to take modules in management studies or leadership, for instance.

8.17 All students on MDM take a core multidisciplinarity module which focuses on understanding how knowledge develops in different disciplines and the interdependency of different disciplines in work-based settings. Multidisciplinary teams are of course ubiquitous in many fields and in most large organisations. A construction project, for instance, typically involves architects, various different

kinds of engineering specialisms, finance, legal, HR professionals and so on.[26] The culture, concerns and ways of working and thinking of the different specialists may vary markedly and need to be co-ordinated to ensure success. Thus professionals need both their own specialist knowledge and expertise *and* an appreciation of how this fits into the broader picture. Such multidisciplinary working is increasingly incorporated into the training of health professionals.

8.18 Thus Nottingham Trent's approach takes first-degree-qualified specialists (in whatever discipline) and prepares them to make a more effective contribution, adding to their skillset and knowledge through a minor subject and developing their ability to contribute to a team. Students on the core 20-credit module (Multidisciplinary Studies and Practices) formed multidisciplinary groups, working together to tackle a real consultancy project for a partner organisation. Assessment includes both group work and an individual report.

8.19 Although the MDM is squarely focused on professional and employment-based applications, I would argue that the model could be adapted for use in 'pure' and theoretical studies too, including preparing students for doctoral study. It would seem especially suited to academic areas which combine several disciplines to focus on a particular topic, or where a new field is emerging on the borders of different disciplines. Although these kinds of inter/multidisciplinary combinations are reflected increasingly in Research Council 'Doctoral Training Centres' and 'Doctoral Training Partnerships', to the best of my knowledge the concerted cultivation of multidisciplinarity which appears to emerge in the Nottingham Trent model is not present in masters training towards doctoral study in these areas.

Integrated masters degrees

8.20 A final aspect of the PGT academic model emerging from the PSS evaluation is the ambiguous position of the four-year integrated masters degree. Such degrees are considered as undergraduate qualifications in HEFCE's funding model and students on them are eligible for public support, through the SLC, for all four years of their programme. However for some purposes they are considered as equivalent to a PGT masters degree.

8.21 Integrated masters are particularly popular and prominent in certain sectors, such as engineering and pharmacy. In engineering, the MEng was introduced in

[26] Precisely this approach of bringing together various specialisms featured in the approach taken with PSS at Bath in their MSc Modern Building Design. Students were drawn from design, architecture and engineering backgrounds. In discussion with them, they reported that working on construction-based projects with peers from different backgrounds exposed them to new ways of thinking about problems and solutions in building design.

response to an increasingly congested curriculum and the demands of professional bodies. The four-year MEng degree provides a fast track to Chartered Engineer status whereas a three-year BEng does not. Typically entry requirements for integrated masters are tougher as are progression hurdles within programmes.

8.22 The integrated masters model now includes a range of STEM disciplines, leading to such awards as MPhys, MMath, MChem, MEnv and MPharm in physics, mathematics, chemistry, environmental science and pharmacy respectively. Latterly there are some indications of the development of integrated masters in the arts, humanities and social sciences (e.g. Manchester's MGeog, MHist and MPlan in geography, history and planning respectively). Within STEM areas, there is a possibility that the integrated masters is becoming the dominant route, with PGT MSc programmes either intended mainly for an international market or aimed at very particular niches for those in work. It may be that this approach works well, but equally it could block off PGT in STEM for those who do not opt in to it on entry to undergraduate study or end up in an institution which does not offer an integrated masters.

8.23 HEFCE does not operate any controls on the establishment of or recruitment to integrated masters programmes over and above any controls or regulations which apply to all other undergraduate provision. To the best of my knowledge, there are no separate statistics published about numbers on integrated masters degrees.[27]

8.24 The existence and growth of the integrated masters degree in England pose some tricky questions for postgraduate policy and funding. Firstly, there is a clear inconsistency here in relation to student funding. A student who successfully completes a four-year integrated masters programme will achieve a masters award and four years of public support for tuition fees and maintenance via the SLC. A student who completes a three-year first degree and then an earned one-year full-time masters degree will have public support for the first three years, but no call on the SLC for the masters programme. If PGT loans are introduced as planned, repayment arrangements will be kinder for those with an integrated masters than those with a stand-alone PGT masters. My impression is that there an unspoken – and uneasy – compromise between institutions and HEFCE over proliferation of the four-year route. This may be tested as the regulatory framework continues to change: with the removal of student number controls there is no obvious mechanism for capping the number of students on four-year integrated masters.

[27] Information collected in the HESA Student Record return could be used to determine the number of integrated masters students since the qualification aimed for or obtained is recorded at a sufficient level of detail to distinguish between 'enhanced' and standard first degrees. However, this is not available for analysis via standard published statistics or the 'heidi' database. For monitoring purposes it may be preferable to use qualifications awarded rather than a student's qualification aim, since students are known to up- and downgrade between (e.g.) BEng and MEng over time.

8.25 We know little about the background characteristics of students on integrated masters programmes. Do they differ in any systematic way from students on standard first degrees? Does the four-year duration dissuade students from financially disadvantaged backgrounds, or conversely has this proved an effective means for widening participation to a masters award through the availability of public support for the masters year? How are patterns affected by the concentration of integrated masters programmes in research intensive universities? And is women's underrepresentation among those progressing to PGT (Wakeling and Hampden-Thompson, 2013) underestimated on the basis that integrated masters are typically in male-dominated disciplines?

8.26 In summary then, there is a case for a closer look at the growth, form and pedagogic rationale of integrated masters degrees. It may be that the *laissez faire* approach adopted to this provision has worked well, but equally there may be significant inconsistencies and inequalities introduced into masters-level education through the uneven distribution of this route.

KEY POINTS

- PSS involved several projects which implemented academic innovations of different kinds.
- Timing pressures constrained what could be achieved with academic innovation.
- Innovation is expensive and risky. Some means of mitigating these risks will incentivise and enable further innovations.
- One set of projects seeks to make generalists out of specialists, inverting the 'Melbourne model' of the curriculum.
- The potentially anomalous position of 'integrated masters' programmes is discussed.

PART D
Supporting processes

9 DEVELOPING NEW SOURCES OF POSTGRADUATE FINANCE

9.1 One of the main messages from the PSS programme is the importance of funding in PGT participation. As well as offering direct funding support to students, projects have also investigated potential new sources of finance for PGT students. This has included employer funding (discussed in Part C), match funding from donors and different kinds of loan funding. Some projects have also conducted research with PGT students about their source of fees and living costs funding, showing a mixed economy which involves income from jobs, savings, gifts and loans from friends and family and formal loans.

9.2 Of the range of new options which received public attention during the time the PSS programme was in operation, few seem to offer any realistic prospect of making a major contribution. Some match-funded contributions from private donors were secured by institutions on the back of their PSS projects, but these were sufficient only to support a handful of students. Other micro-finance and/or peer-to-peer lenders may be helpful, but offer little prospect of achieving sufficient scale to address the overall problem. At present they are somewhat untested and hence risky.

9.3 It is understood that BIS have held various discussions with major UK banks about the prospects for a commercial loan scheme but that there appears little appetite for such developments on the part of lenders.

9.4 Certain programmes are eligible for support by Professional and Career Development Loans (PCDLs), a product currently offered by two UK banks, Barclays and The Co-operative. There has been a downturn in take-up of these loans, which are in any case frequently unsuitable for those taking non-vocational programmes. The high, fixed rate of interest and the stringency of repayment terms (which commence soon after a programme ends) may also explain the drop in applications for this product. It is understood that no other banks are interested in offering PCDLs. HEFCE has been tasked with taking over their administration and reviewing their operation.

9.5 Within PSS, three projects have involved the development of new financial products, two of which have successfully launched. I describe and review these projects in more detailed below. As a general observation, the two continuing schemes – Durham's credit union and Cranfield's partnership with Prodigy Finance – offer useful and potentially sustainable sources of PGT funding. However, their scale and scope is such that they will play only a minor role in the overall PGT student funding system.

9.6 Realistically then, there is no other major source of funding for PGT study than the Government: it is the state, or the status quo. The consensus from several recent reports by CentreForum (Leunig, 2011), the Higher Education Commission (2012), the National Union of Students (2012), the Social Mobility and Child Poverty Commission (2014) and the Institute for Public Policy Research (Muir, 2014) has been for a government-backed loan scheme. The Government formally proposed such a scheme earlier in 2015. Its stated policy objective was

> to support the highest levels of skills to support the UK economy by enabling those who cannot afford or delay study at taught postgraduate level to take up places.
>
> (BIS, 2015, p. 14)

At the time of writing the Government's response to the accompanying consultation exercise is awaited. The main features are a loan of up to £10,000 to support UK/EU students under the age of 30 on PGT masters programmes in England. Repayment would be income contingent, beginning once a graduate's earnings reached a certain threshold, but with repayments being concurrent with undergraduate loan repayments.

Reflections on a state-backed PGT loan system

9.7 Evidence from PSS has shown that, within the mixed economy of PGT funding there is a significant gap relating to graduates who lack access to resources to finance PGT study. Loan funding certainly promises to close this gap. However there are some important potential consequences to consider if loans are made available to all intending PGT masters students who qualify on the domicile and age criteria. Some of these potential consequences are related to social mobility and widening participation to PGT study. It should be acknowledged that, although this is a key focus of PSS, it is not explicitly addressed by BIS' loan proposals, which emphasise affordability. Other possible consequences relating to 'deadweight' do more directly address concerns raised by BIS in its consultation.

9.8 The availability of loan finance on terms relatively beneficial to the borrower will effectively subsidise those who are already able to afford to cover their own costs of postgraduate study. Rather than draw on their own or family resources, they could turn to loan finance on preferable terms instead. The students best placed to do this are likely to be the least in need of financial support. Loan finance lowers the marginal cost of taking PGT study and is therefore likely to encourage more advantaged students to opt for masters qualifications at a greater rate than their more disadvantaged peers. This risks fuelling what might be called an 'educational arms race' or what social scientists refer to as 'credential inflation'. There is an emerging consensus in the international literature on education and social mobility

that expansion threatens the 'passing upwards' of inequalities to the next educational level. Thus as more people earn bachelors degrees, so the masters degree becomes an important form of distinction in the labour market. We are thus faced with a paradox. Enabling rapid expansion of PGT education through a general loan scheme open to all comers, whilst leading to certain benefits associated with development of advanced skills, is also *highly likely directly to contradict efforts to widen participation and support social mobility*.

9.9 PSS projects have demonstrated that targeting financial support to potential PGT students with the greatest need can be successfully achieved and can widen participation. The key is whether a potential student is able to afford further study. It is not the case that all graduates from disadvantaged backgrounds are upwardly socially mobile or that those over 30 are financially secure (Wakeling, Berrington and Duta, forthcoming 2015). Not targeting support according to assessed need risks significant deadweight, as well as running contrary to the facilitation of social mobility. It is of course possible that the majority of those with recourse to existing funding sources will avoid PGT loans, but this seems unlikely.

9.10 Similarly, there is a risk that the provision of state-backed loans will displace employer and institutional funding for PGT students. Although such sources currently represent a minority of PGT funding, the absolute sums involved are not trivial. The match funding generated by PSS projects suggests there may be further scope for bringing in employer contributions as part of a partnership model.

9.11 There are other potential disadvantages of a postgraduate loan system. We have some new evidence from the Futuretrack study (Ellison and Purcell, 2015) that students with very high levels of undergraduate debt are less likely to enter postgraduate programmes. Some studies suggest that debt aversion is higher among more disadvantaged students. There are mixed messages too on debt levels and entry to graduate school from the US literature. My view here is that lack of *credit* is a bigger barrier to PGT enrolment than size of *debt*, but this requires further empirical study to determine. Fears of declining enrolment by socio-economically disadvantaged students following the introduction of much higher tuition fees in England from 2012 were not realised and hence my hypothesis is that we will not see a sudden downturn in PGT enrolments in the first-degree class of 2015. However, this is merely a hypothesis subject to empirical test. We should also note that for more disadvantaged potential postgraduates, the crux of the problem will not change in 2015: students graduating under previous student-funding regimes had insufficient resources to self-fund; the same will apply from 2015.

PGT loans in PSS

PGT loans: Sheffield consortium

9.12 The Sheffield-led consortium had an element of funding awarded to provide loan collateral and/or start-up capital to encourage partnership with banks for a pilot loan scheme for postgraduate study. As with government-level discussions, several different banks were approached by the consortium, including those with existing strong relationships with consortium institutions. Despite efforts on the part of the project, major retail banks and mutuals located in the consortium's region were reluctant to move beyond broad discussions of principle or actively declined to move to detailed discussions. It would appear that there was a general reluctance to lend on the part of retail banks and in particular a risk aversion in relation to postgraduate borrowers given uncertainties about credit history.

9.13 The Sheffield consortium also contacted other alternative lenders for further discussions, including credit unions (see below in the discussion of the Durham project) and newer entrants to the market. Criteria were established which lenders needed to meet in order that discussions could proceed. These covered the capacity and track record of the lender, its approach to risk and so on. Applying these criteria, the consortium moved from eight possible partners (two high street banks, a credit union, a crowdfunder, a non-traditional lender and three building societies) to select one potential partner.

9.14 Discussions with that partner (a new substantial financial services company) advanced to the point of beginning to design a product for students seeking to enrol at PGT level in 2015 or possibly 2016. Attention had centred on the potential future earnings of postgraduate qualification holders from different subject disciplines which was being investigated using the Destinations of Leavers from Higher Education (DLHE) data. However once the Government announced its PGT loans proposal, the company withdrew and there is no prospect of further discussions.

PGT loans: Cranfield

9.15 Cranfield University has been working with the alternative lender Prodigy Finance to extend their existing relationship from providing a loan product to Cranfield's MBA students to now also cover other masters degrees in the institution (such as in science, engineering and technology). The existing arrangements appear to be working well with MBA students, with good take-up and exceptionally low default rates. Although it has experience with several business schools internationally, Prodigy is a relatively small and specialist company, so there is a question of scaleability to be considered. Prodigy base their lending approach on future earnings. This focus on credit futures, rather than credit histories, is

innovative, but it also carries the risk that commercial providers will distort PGT provision through a concentration only on programmes which provide the highest rates of return.

9.16 The loans element of the project has been very successful. Cranfield estimates that around 150 students will have taken up a loan by the end of 2015, of whom they estimate that more than 80% would not otherwise have been able to participate in PGT study. They report that most students sought the maximum loan of £15,000, with the average loan being £12,100.[28] Students reported that the terms of the loan were sufficiently attractive and affordable. There seems to be clear potential for extension of a similar scheme to other institutions with the same or similar commercial partners. However private sector enthusiasm may be diminished by the introduction of a state-backed scheme.

9.17 Cranfield also sought to secure investment from its existing corporate partners and sponsors to underwrite specific loan packages for particular programmes. This would have involved, to take a hypothetical example, an aerospace company providing a block of funding which would be used to underwrite and subsidise loans. In that way, sponsorship which would otherwise cover a small number of students' full costs could instead be 'recycled' via loan finance as repayments could be used to finance further loans. However Cranfield's judgement is that this idea will now not go forward because of the state-backed loan proposals.

PGT loans: Durham

9.18 For its PSS project, Durham University investigated the establishment of a credit union, with its staff, student and alumni representing the required 'common bond'. The credit union approach is an established model but there are only one or two other examples in higher education, both on a much smaller scale and focusing on lending to staff and/or students, principally as alternatives to payday lenders. If successful, there is potential for the HE credit union concept to be scaled up on a regional or even national basis for the purpose of providing tuition fee loans for postgraduate study. The project is promising in prospect, but there is a clear need to proceed one step at a time since this is in many ways a new and untested concept.

9.19 Durham originally considered establishing its own credit union. However, initial investigations led to a change of strategy involving partnering with an

[28] It is not clear whether this is a mean or median measure. Cranfield point out that students have sought loans in excess of the amount proposed in the Government scheme, suggesting potential for a shortfall for those only able to borrow £10,000. Furthermore, about one quarter of their loan applicants were aged over 30.

existing credit union. Credit unions report an imbalance between depositors and lenders in favour of the former which is disposing them to want to increase lending. Consultation and market research with staff and students found strong support for the proposal.

9.20 Durham undertook a procurement exercise, where five existing credit unions were invited to tender, with three being shortlisted. After completion of extensive due diligence work, Durham has partnered with the NE First Credit Union to provide loans for postgraduate study. Credit unions require their members to save with them on a regular basis in order to be able to qualify for loans in future. The initial proposal is that members of the scheme deposit at least a token amount on a monthly basis during their first degree – £10 has been suggested. Making payments in this way would enable them to apply for a loan to cover PGT tuition fees *at Durham* in future. Loans toward tuition fees of up to £7,000 will be available. The scheme will launch on 9 September 2015 (after the submission of this report). Repayment terms will be better for the borrower than under commercial schemes. The initial collateral fund will be established using PSS funding and topped up by member deposits and, in the fullness of time, repayments by borrowers. Durham is keen to encourage alumni and members of staff to become depositing members of the scheme too. This could allow staff to draw down small loans for domestic purposes (as is the case with most existing credit unions), although the main purpose of alumni and staff depositing would be as a kind of recoverable 'donation' – depositors would be contributing to the fund to support PGT students, but unlike donors would be able to get their money back (albeit with no or low returns).

9.21 Default rates for credit unions tend to be low and there are good reasons to believe that this will remain the case for the proposed scheme despite the larger amounts involved. This is because the earnings potential and hence liquidity of the masters-graduate former borrowers from the scheme will be good; and because the close association of the university and its alumni community with the scheme provides a moral imperative to maintain repayments. Cranfield's experience with its existing Prodigy loan scheme supports this view. With the scheme underwritten by PSS funds, it should become self-sustaining in the longer term. As a mutual, surpluses from the scheme could be reinvested in its principal purpose of supporting PGT study.

9.22 A limitation of the scheme is that it will only be available to Durham first-degree graduates who subsequently remain at Durham for their PGT programme. Thus the benefits are restricted to a narrow group of people in a narrow set of circumstances. This is not a criticism of the scheme – it has been established in that way partly because of how credit unions work and partly to manage the inevitable risk. With continued success, there would be scope for scaling up the model and perhaps generalising it across other institutions. One could imagine a consortium of

institutions, perhaps on a regional basis, coming together to create a credit union which pools their undergraduates, alumni and staff into a single common bond and which then offers loans to graduates of any of the member institutions to study at any of the others. Ideally this would evolve eventually into a national scheme, but such an outcome is some time off and requires many things to fall into place in the meantime. It may require a large injection of capital from public funds on establishment, perhaps from windfall funding.

9.23 Independently of PSS, Northumbria University launched a postgraduate loan scheme for 2015 entry in partnership with its local credit union. This was based on a residential common bond, whereby UK-domiciled taught postgraduate students based at its Newcastle campus would be considered to meet the partner credit union's locality-based eligibility. Details of the scheme are now missing from Northumbria's website and information is not publicly available on whether loans have been offered.

Alternative PGT loan providers outside of PSS

9.24 Other loan and funding arrangements emerged from the private sector while PSS was in operation but outside of the programme. Metrobank offers a loan to UK postgraduates taking certain programmes at the University of Law.[29] APR is variable, but the advertised 'representative' rate is 7.9%, with a repayment term of 60 months.

9.25 Various 'crowdfunding' approaches have received some attention in the media. 'Studentfunder'[30] is one such operation set up to address perceived problems with PCDLs and difficulties accessing credit. It is a peer-to-peer lending broker, which takes micro-investments from private individuals and uses them to finance postgraduate borrowers. The company offers investors a 6.7% return on investment, with borrowers charged 7% annual interest, administration and booking fees. Studentfunder is small – there were just four staff and three directors listed on its website in October 2014 and its contingency fund for underwriting defaults is tiny (£100,000). Some students have invited crowdfunding donations themselves.[31]

9.26 A new provider named Future Finance[32] has also launched in the last year. It is difficult to say much about this new company, which appears to be independent

[29] See https://www.metrobankonline.co.uk/Personal/Borrowing/Professional-Studies-Loan/ and http://www.law.ac.uk/postgraduate/metro-bank-loan-scheme-faqs/ (accessed 7 September 2015).
[30] See https://www.studentfunder.com/ (accessed 7 September 2015).
[31] There was considerable news coverage of the case of Emily-Rose Eastop who took such an approach earlier in 2014 (see: http://www.bbc.co.uk/newsbeat/28585425, accessed 7 September 2015) and other similar cases continue to emerge.
[32] See: https://www.financemyfuture.co.uk/

and based in Dublin. It offers loans to both undergraduate and postgraduate students of between £2,500 and £40,000 for study anywhere in the world. The company states these are not intended as an alternative to state loans, which it recommends:

> We think Government student loans are a great way to help fund university education. We strongly encourage students to apply for them first. However we know that university costs and student life can be expensive. We aim to fill the funding gap between government loans and the actual cost of attending university.
>
> (Future Finance website, FAQs)

It charges relatively high rates of interest (which vary according to the level of study and credit history), may require a guarantor for the loan, and repayments appear to begin during the student's programme (although later repayment holidays are permitted).

9.27 An important point arising from discussion with PSS projects is that the emergence of new varieties of loan product brings with it a requirement for independent financial advice. Institutions are not currently in a position to provide this and the regulatory framework is complex and demanding.

KEY POINTS

- There is little prospect of traditional banks offering financial products for PGT students.
- Some alternative financial products trialled through PSS have potential to contribute to a broader system for funding PGT students, but are unlikely to be more than a minor element.
- Realistically, only the Government can provide access to finance on the scale required to have an impact on PGT participation.
- There are risks and potential unintended consequences from the loan scheme proposed by the Government, including credential and fee inflation, and deadweight.
- Two alternative loan products have been developed through PSS, involving Prodigy Finance (Cranfield) and the NE First Credit Union (Durham). It is not certain what the impact of a state-backed loan system will be on these products.

10 PGT RECRUITMENT AND ADMISSION

Understanding PGT recruitment and admissions

10.1 The process by which potential students apply for and are admitted to PGT study is not directly referenced in PSS' objectives. Clearly, however, this process is integral to the PGT student experience and to PGT participation. To enrol in PGT study, potential students must apply, be assessed for suitability, receive an offer of a place and so on. PSS evidence points to major shortcomings in the current organisation of PGT admissions and recruitment and significant gaps in our understanding of almost all aspects of the process.

10.2 In 2013 BIS produced a study of aggregate postgraduate applications in a selected sample of institutions and HEFCE has procured a study of admission to research degrees. This means we now know *something* about PGT applications, although there is considerable scope to find out more. The BIS (2013) study found a dramatic increase in the volume of PGT applications over the seven years to 2011/12, with an estimated 1.3M applications made in that final year. Most applications were made to masters degrees. The overall growth masks a recent decline in applicants from the UK, who comprised just 14% of PGT applicants in 2011/12. Somewhat more than half of applications received an offer of a place. The ratio of applications to enrolments for PGT students varied between 4:1 and 5:1 during the period in question. The large majority of applicants were seeking full-time study.

10.3 CRAC, Vitae and the University of Derby in a study commissioned by HEFCE (Mellors-Bourne *et al.*, 2014), looked in more detail at institutional admissions practices. Although this covered research degrees, not PGT, some of the findings may be transferable. They found little centralised marketing of programmes and a reactive approach to promotion more generally. Application processes were complex, differed markedly across (and within) institutions and resulted in a very inconsistent experience for applicants, with some finding the process very smooth and others, especially those less familiar with the system, expressing frustration.

10.4 In respect of PGT applications then, there remain substantial gaps in knowledge and understanding. It is not known who applies, for what, where and why. There is no understanding of who is successful in receiving an offer and who then goes on to enrol. This contrasts sharply with the extensive evidence base about full-time undergraduate application patterns.

Demand in PSS

10.5 Demand is complex and influenced by a number of factors. It can be affected by discipline area, the efficacy of different kinds of marketing activities, local labour market effects, applicants' understanding of the programmes offered in PSS and timing issues. Once again, all projects reported timing as a hindrance in recruiting students since they were not able to follow their normal full PGT recruitment cycle in attracting and processing applications. This particularly affected the Bloomsbury Doctoral Training Centre (DTC) project, where the first students were recruited for a May 2014 start; and the University of Oxford which was close to the usual closing date for its application process at the point it was able to announce its PSS project.

10.6 An exercise was undertaken in July 2014 to compare application numbers across PSS programmes (where applicable). Table 10.1 below gives the results, which were preliminary figures when supplied. In addition, HEFCE conducted a short informal comparison exercise in September 2014 with 20 institutions selected to match PSS institutions. This provides some context for changes in overall applications within PSS.

Institution	Applications	Offers	Places
Aston University	184	100*	100
University of Bath	11	8	20
Bloomsbury DTC (IoE)**	13	13	40
Brunel University	161	48	60
University of Derby	69	39	70
University of Essex	218	144	165
University of Greenwich	363	180	151
Imperial College London	181	114	100
King's College London	241	35	36
Kingston	498	332	340
Lancaster University	66	56	45
Nottingham Trent University**	63	-	60
University of Oxford**	894	113	115
SOAS	108	-	22
University of Sheffield consortium	1,755	460	460
University College London	407	-	93
University of Worcester	116	28	40

Table 10.1: Recruitment of PSS projects as at July 2014 (except for Kingston, final figures)

* Acceptances, not offers

** Later intakes planned in 2015

10.7 Although it does not come through in Table 10.1, with one or two exceptions projects reported major difficulties in recruiting part-time PGT students. This follows HEFCE's and others' concerns about this provision in particular and its downturn in the last few years (HEFCE, 2014). Consequently, addressing part-time PGT remains an outstanding issue for PSS and beyond.

10.8 Projects targeting specific discipline areas had lower volumes of applications than those open more widely. For some, this will reflect overall levels of demand in that subject area. In engineering, for instance, Bath and Derby had relatively low application numbers (although Brunel fared better, mainly on its Women in Engineering programme). STEM-focused projects such as Imperial and the Kingston consortium also received lower numbers of applications, as did Aston, a university which specialises in STEM disciplines.

10.9 HEFCE's straw poll of a set of institutions pair-matched with those in PSS provides a somewhat mixed picture. Five of the 20 institutions contacted did not respond or provided no data about application levels. Several institutions reported increases in UK applications for PGT from the previous year, although where reported, this was an increase of a few per cent only. Some institutions reported no change since the previous year and a few recorded a decline. There was no clear pattern by institution type.

Good practice in PGT admissions from PSS

10.10 My judgement is that several projects achieved particular recruitment successes. Institutions which were able to communicate a straightforward programme and scholarship offer to potential students using simple approaches appear to have been the most effective recruiters. Masters programmes within an institution-wide scheme and which provided clear and prominent web-based information seemed to fare best. This would include the Essex project and the Sheffield consortium, the latter providing a single portal – www.postgradsupport.co.uk – which linked to all six universities' schemes. The University of Oxford undertook a well-constructed traditional marketing campaign involving advertisements in the press and on relevant websites. This may have helped generate their very high level of applications, although as previously noted many of these applicants will already have applied to Oxford for a place before being alerted to the new funding opportunities available through PSS. The University of Greenwich focused its marketing effort on its own students and alumni through direct email contact, but also using word-of-mouth approaches involving academic staff and a co-ordinated series of 'shout outs' in lectures. This also worked well. Lancaster University's MSc in Data Science, which launched relatively late in the academic year compared to other projects, achieved effective recruitment in a very concentrated period. They concentrated on achieving a very

high application:offer:enrolment ratio through personal contact between academic staff on the Data Science programme and enquirers/applicants. This included personal correspondence and meetings. UCL also reported success from a 'late push', with certain social media channels proving effective.

10.11 Obviously many of these strategies are resource-intensive. They can be easier to justify when operating in project mode, but may not be sustainable when added to normal workloads. PSS projects were potentially newsworthy enough to justify a prominent presence on institutions' website home pages, but this might not apply in future years. The University of Bath began by treating its PSS programme strictly as a pilot, which meant it did not pursue the kind of initiatives outlined above, although it did have a marketing plan and changed tactics at a later point to ensure a viable cohort. This might explain some of the disappointing application figures for Bath.

10.12 In preparation for my site visits to projects, I undertook some web-based 'mystery shopper' searches for information about their activities, the programmes offered, how to apply and so on. Many projects provided comprehensive and useful information which was prominently displayed and easy to find. If not displayed on the home page, it was clearly signalled from the 'postgraduate study' pages. However, for several projects the quality and visibility of information provided was poor. This was difficult to find, sometimes not clearly indicated as being part of the PSS initiative and sometimes quite vague about the programme, the application process and/or the financial support offered. I was surprised that some projects did not place more emphasis on the amount of money offered. One would not want to encourage people into PGT study solely for the money of course, but if financial support is held to be important in decision making, it ought to be clearly and prominently stated. Some of these shortcomings reflect general issues with the provision of information about PGT study which were outlined in CRAC's report to HEFCE on postgraduate information needs (Mellors-Bourne, Hooley and Marriott, 2014).

A national postgraduate application system?

10.13 There is a national clearing house for undergraduate applicants: UCAS. There is no equivalent at postgraduate level.[33] This means potential postgraduate applicants lack a single point of reference for determining what postgraduate

[33] UCAS runs a postgraduate scheme, UKPASS, but take-up is limited, consisting of 18 institutions only. UKPASS members are mainly smaller and specialist institutions. UCAS also processes applications for postgraduate initial teacher training (UCAS Teacher Training, formerly the Graduate Teacher Training Registry) and postgraduate courses leading to professional qualifications in social work and medicine (administered through the undergraduate UCAS scheme).

courses are available to them. There are several commercial websites which advertise postgraduate programmes, but they can be expensive for institutions, are not definitive and do not provide an application service. An applicant faced with finding out about postgraduate options needs to visit a range of websites, where information is often patchy – these issues are also well-rehearsed in the CRAC report for HEFCE mentioned above (Mellors-Bourne, Hooley and Marriott, 2014).

10.14 The process of postgraduate application can be complex, varying from course to course, institution to institution. Applicants may need to provide the same information in slightly different ways multiple times. Many institutions may separately need to confirm information for the same student. Crucially, institutions are also unaware when an applicant has taken up a place elsewhere, which makes student numbers planning difficult. For the most part, these issues relate just as much to international and EU applicants as they do to UK-domiciled students.

10.15 A national postgraduate application system of some kind has the potential to address the issues raised above about lack of data and understanding, to streamline and demystify the process, as well as raising the profile of postgraduate education more generally. The establishment of a national postgraduate application system is properly a matter for universities themselves and would also need to take account of the views of Scottish, Welsh and Northern Irish institutions if a UK-wide model were to be adopted.

10.16 The idea of a national postgraduate application system was mooted during site visits with individual projects and as part of discussions about admissions and recruitment at the first PSS national workshop. Reaction to the idea from institutions was mixed. Some felt that this was a much needed change, with a few arguing it was overdue. Some projects expressed a more equivocal view, identifying advantages and disadvantages and concluding with mild support, mild opposition or with no strong feeling for or against. Another group were opposed. Those in favour of a national system outlined the advantages already mentioned.

10.17 Among those opposed to a national system, several arguments were put forward. Firstly, in the absence of a national system, institutions had invested significantly in their own postgraduate applications systems, suited to their own needs and requirements. They felt that the benefit of a national system would not outweigh sunk costs. The complexity and fragmentation of the PGT sector was felt to be far less amenable to a national system. For instance, there are large numbers of closed PGT courses run for particular groups or clients where participants are nominated rather than selected. PGT programmes frequently use a non-standard academic year or have multiple entry points which make fitting with a uniform system problematic. Where applicants are currently undergraduate students planning to continue to a PGT programme in the same institution, the involvement

of a third party clearing house seems heavy-handed and illogical. This looks stranger still to the applicant if a fee is charged to them by the clearing house (especially when most direct PGT applications are currently free). Some institutions felt that a national system would not sit well with the kind of competition for applicants which operates at PGT level. Others were frank enough to state that a national system might erode their current competitive advantage (a view which may well be inverted among proponents of a national system).

10.18 I spoke to UCAS about their views on and plans for postgraduate applications.[34] They recognised some of the disadvantages outlined by institutions of a national application system and acknowledged the investment made by institutions in their own systems as a key reason why the UKPASS system remains small. UCAS' own experience of working with PGT applicants was that they were less likely to accept a heavily rule-based system such as the undergraduate UCAS scheme. Similar considerations apply to part-time undergraduate applications (which are outside UCAS). UCAS stressed, however, that a national PGT application system would not have to operate like their other systems (undergraduate or UKPASS), there being a range of different possible models.

10.19 Rather than act as a clearing house, processing applications and managing all communications with applicants, a national system could be more like a registry which records that certain actions have taken place and receives data about those actions in due course.[35] Thus a registry-type system could act simply to ensure that an applicant has definitively accepted one offer among many and could collect transactional and background data about an applicant for monitoring and statistical analysis. If such analysis is to be undertaken, then an agreed common set of fields will need to be specified, collected and reported for PGT applicants. This would be useful for its own sake, but would also enable collection of additional fields about PGT students through the HESA Student Record return with minimal additional effort. Collecting such data has been recommended by both the Smith Review of Postgraduate Education (BIS, 2010) and by the Social Mobility and Child Poverty Commission (2014). It must be recognised, however, that this would add to the reporting burden for institutions. HEFCE and Government may take the view that such a data request would be a reasonable trade-off for the provision of additional funding for PGT students.

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[34] Telephone conversation with Mary Curnock Cook (UCAS Chief Executive) and Andrew Hargreaves (Director of Marketing and Communications), 24 October 2014.

[35] My suggested analogue for understanding the different model implied here is the Land Registry of England and Wales. Taking the example of domestic property, the Land Registry is only peripherally involved in property transactions, which are principally conducted between an estate agent, a vendor, a buyer and legal representatives of the parties. The Land Registry's role is to confirm certain facts about a property and to record the details of the property transaction after the fact.

10.20 UCAS already collects details about *all* taught courses offered by its members, including part-time undergraduate and all PGT provision and regardless of whether they are UKPASS members. It currently publishes only details about full-time undergraduate courses through its online course database, selling on information on PGT provision to other providers (e.g. Graduate Prospects). UCAS has now made all its course data, including about PGT, available through its course-search portal.[36] This is part of a broader move by the company to establish an enduring relationship with applicants which extends beyond their initial undergraduate application, building on its position as the most recognisable place for information on university provision. Anecdotally during PSS discussions it has emerged that many potential postgraduate applicants simply assume that UCAS handles PGT applications too (in a similar way that many wrongly assume that SLC provides support for PGT masters study). Respondents to Mellors-Bourne, Hooley and Marriott's (2014) study of postgraduate information needs called for a single point of information like UCAS and the report noted that the UCAS system is well understood by applicants, unlike direct applications.[37] It seems clear that there should be a single, definitive source of information about available PGT provision. HEFCE recently launched the *Steps to Postgraduate Study* web portal, arising from the Postgraduate Information Needs work already referred to.

10.21 UCAS suggest – plausibly, in my view – that a single national PGT application system will give the UK a competitive advantage in attracting international applicants. None of the UK's major competitors for international PGT students have such a system.[38] Acting in concert potentially gives UK institutions much higher visibility than each promoting its own provision.

10.22 There is a case for a more detailed consideration of a national application system for PGT study. My own view is that this would address a number of continuing issues in relation to entry to PGT study and would provide a set of wider benefits which would outweigh the disadvantages. While admissions are properly a matter for institutions, HEFCE and other sector bodies could play a role in facilitating discussions.

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[36] See: http://ukpass.prospects.ac.uk/pgsearch/UKPASSCourse

[37] My own research on barriers and motivations to research degree study found similar confusion among graduates. High-flying and relatively privileged graduates of elite universities reported a lack of understanding of postgraduate admissions and funding (Wakeling and Pásztor, 2013), which suggests graduates from backgrounds and institutions with less history of PGT study will have even greater difficulties.

[38] There is a national PGT application system in the Republic of Ireland – the Postgraduate Applications Centre (www.pac.ie) – but it does not include three of the most prominent institutions: Trinity College Dublin, University College Dublin or University of Limerick.

KEY POINTS

- PGT application and admissions processes are little researched and little understood. This is a significant omission which hinders achievement of PSS objectives.

- Although it varied somewhat, the general level of demand for PSS places was good. General schemes were more popular than specific ones, on the whole.

- Simple, prominent and direct marketing proved most successful. Advertising rarely proved to be good value for money, with the exception of some targeted campaigns via social media.

- There are sufficient arguments in favour of a national application system as a means of addressing some of the issues identified to justify a more detailed consideration. This is properly a matter for institutions. A national system need neither look like nor be run by UCAS.

11 INSTITUTIONAL PROCESSES AND THE STATUS AND VISIBILITY OF PGT

11.1 Site visits, discussions in various fora and other observations have confirmed my view that PGT holds something of an ambivalent position within many, if not most, higher education institutions in England. Processes for PGT application, programme development, management and monitoring appear to be underdeveloped, especially when compared with processes for undergraduate programmes and students. For instance, most institutions collect substantially fewer data about PGT students than undergraduates and very few seem to undertake systematic analysis of such data as are collected – a point made in Sections 4 and 10 above. This impression is supported to some extent by work undertaken as part of HEFCE's Postgraduate Information Needs activity which focused on the provision of information about postgraduate programmes to potential applicants (Mellors-Bourne, Hooley and Marriott, 2014). It was re-confirmed by a project on PGT transition and institutional practice undertaken for the Higher Education Academy (Mellors-Bourne *et al*., forthcoming 2015).

11.2 Much of the academic and welfare support provided by institutions tends to be focused on undergraduates. Some 'researcher development' activity developing out of the Roberts Review (2002) means there is provision for research students. PGT students often seem to fall between the cracks. Few institutions have dedicated careers advice for PGT students; much of the available financial hardship funding is aimed at undergraduates, and extra-curricular and extension activities may be targeted mainly at undergraduates too.

11.3 Very frequently there is no institutional location, lead individual or senior manager responsible for PGT students. Institutions engaged in PSS, especially those with projects which were not limited to one faculty or department, recognised this of their own volition. Several PSS-funded institutions have used the programme as a catalyst for reviewing and re-engineering their PGT processes and administration or plan to do so shortly. Of course there may be something of a selection effect here, as those that were already thinking about these matters may have been more likely to apply in the first place. In the main, however, institutions have reported coming to this realisation directly as a result of issues arising from running their PSS project.

11.4 In my view, there are two reasons behind this apparent neglect of PGT students:

i. In nearly all institutions, PGT students are in the minority. Until relatively recently they were in fact quite a small minority. Since most activity relates to

undergraduate study, it is hardly surprising that undergraduate students are the focus of institutions' attention.

ii. PGT study has seen a boom in international student demand. PGT numbers as a whole have increased year-on-year and for some subject disciplines growth has been substantial and sustained. In these circumstances, there is less pressure to review programmes and processes to ensure adequate recruitment. As PGT student numbers are uncontrolled there is no hard target, and home and international numbers are effectively interchangeable. In fact institutions tend to charge higher tuition fees for international students, meaning for classroom-based subjects there is no monetary incentive to prioritise home students.

11.5 Informally there are indications that the 'buzz' which PSS has created is spreading to non-PSS institutions. PSS projects have shown a pleasing willingness to share and disseminate their findings in many different ways. Many institutions outside the scheme have reciprocated by seeking to engage with findings. This was particularly evident at HEFCE's PSS briefing event held in January 2015 in London. PSS2 has provided further impetus, but interest does seem to extend beyond the narrow limits of the 2015/16 scheme.

KEY POINTS

- PGT study holds an ambiguous status within English higher education institutions' structures, often lacking a clear governance and management presence.
- Few institutions have dedicated PGT-focused staff in widening participation, student support or careers functions and many initiatives target undergraduates or research students.
- The impetus from PSS has led many participating institutions to begin reviews of their structures.

12 ELIGIBILITY ISSUES

12.1 The clearly articulated overall intention of PSS has been to make improvements to PGT in respect of UK students. During the course of PSS the complexity of PGT study and to some extent the concept of a 'home' student raised several issues and questions in relation to eligibility for support under the scheme, These were dealt with in detail in the preliminary and interim reports. The PSS projects' experience suggests that explicit guidance will be required in particular areas for any future PGT student funding in order to ensure public funds are directed in the most appropriate way given the overall aims of the scheme; and to provide clarity to institutions to aid operational processes and advice to students.

12.2 Briefly, eligibility issues covered:

i. The **level and type of postgraduate programme** eligible for support

ii. The eligibility for PSS funding of **European Union students** (and related categories)

iii. Relatedly, the position of **'rest of UK' students** and whether support could or should be limited to English students

iv. Whether students who have previously obtained qualifications at an **equivalent or higher level** should be eligible for PSS support and/or funding for PGT study in a future scheme.

13 CONCLUSIONS

13.1 As befits a £25M, 20-project programme, PSS is a complex and multifaceted scheme. Its subject – PGT education – is also complex and multifaceted. We have seen that there are substantial challenges in the design of the scheme when seeking to evaluate it and draw robust conclusions. But we have also seen that PSS covers an impressive range and volume of activity and includes substantial innovation. It has lent support to around 2,000 students, launched a number of new programmes and ideas and generated substantial interest and a 'buzz' around PGT study.

13.2 A certain amount of risk was accepted in creating the scheme: these are pilot projects and not all of the ideas and initiatives tried have worked out as planned. However, project performance has generally been good, with some beacon projects emerging.

13.3 There are some clear findings from the analysis. There is latent and frustrated demand for PGT study. The critical role of finance in enabling enrolment of those without access to their own financial resources has been demonstrated by PSS projects. Only state funding seems a plausible means of plugging this gap. However, finance alone is insufficient since it addresses only one particular point in the much longer process of entry to PGT study. Widening participation activity involving information, advice and guidance is also required.

13.4 There is scope and appetite for innovations in PGT study to address employability and industrial strategy goals. However, the costs and risks of innovation need to be mitigated to support this. Employer reactions are mixed, but sufficient interest and commitment has been demonstrated through collaboration and funding to suggest greater potential for development. Dovetailing PSS and elements of advanced skills policy such as Level 7 apprenticeships should be productive.

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Annex 1 – Analyst activities

A1.1 During the course of the programme I have:

- Familiarised myself with project proposals and other relevant documentation and with further new documentation about postgraduate education in England.

- Conducted initial telephone conversations with each of the 20 PSS projects.

- Liaised regularly with the programme manager, Dr. Brooke Storer-Church, other HEFCE staff and other relevant individuals (e.g. in BIS, UK Council for Graduate Education (UKCGE), consultants for the National Scholarship Programme (NSP) evaluation etc), including two visits to HEFCE's offices at Northavon House.

- Visited each of the 20 projects in person on at least one occasion to meet key project staff. The first round of visits took place in the period March to August 2014. Follow-up visits with selected projects took place during January to May 2015.

- Organised and chaired a 75-delegate PSS workshop for all 20 projects and HEFCE colleagues at King's College London (6 October 2014).

- Visited the SFC-funded Making the Most of Masters project at the University of Edinburgh, with Dr. Storer-Church (28 July 2014). Representatives of this project were invited to and attended the PSS workshop.

- Participated in the UKCGE's postgraduate funding working group.

- Made various presentations about PSS and related matters, which included:
    - UKCGE workshop on postgraduate employability, June 2014, City University London.
    - HEFCE Strategic Advisory Committees meeting, 6 November 2014, University of Warwick.
    - Engineering Professors Council, 10 November 2014, London.
    - HEFCE workshop on PSS2, 8 January 2015, London.
    - UKCGE Postgraduate Funding Workshop, 21 January 2015, Sheffield.
    - The House Magazine Westminster Briefing event on taught postgraduate education, 22 January 2015, London.
    - Association of Graduate Careers Advisory Services North East Regional Training event on PGT study, 7 May 2015, Leeds.

- Engaged with the media about PSS (articles in *University World News*[39] and *Times Higher Education*[40]).

- Submitted preliminary (April 2014) and interim (October 2014) reports to ESRC and HEFCE.

A1.2 My activities will conclude with participation in the final PSS workshop, scheduled for 17 September 2015 in Sheffield.

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Annex 2: a description of the funded PSS projects

Figure A2.1: Distribution of PSS projects by Government Office Region in England by number of projects, value of awards to those projects and participating institutions

Tariff profile	Number of projects	Value
High	9	£14.0M
Medium	3	£3.8M
Low	4	£4.5M
Specialist	4	£4.2M

Table A2.1: PSS projects and value by HEFCE tariff profile (based on qualifications on entry to undergraduate study at corresponding institution)

Emerging grouping	Number of projects	Value
Widening participation and finance	7	£13.1M
New postgraduate programmes	4	£4.0M
Postgraduate loan finance	2	£3.2M
Outreach	3	£2.8M
Engineering	3	£2.6M
Languages	1	£0.8M

Table A2.2: Coverage of PSS priorities by funded projects

Total number of scholarships/student awards through PSS: just over 2,000.

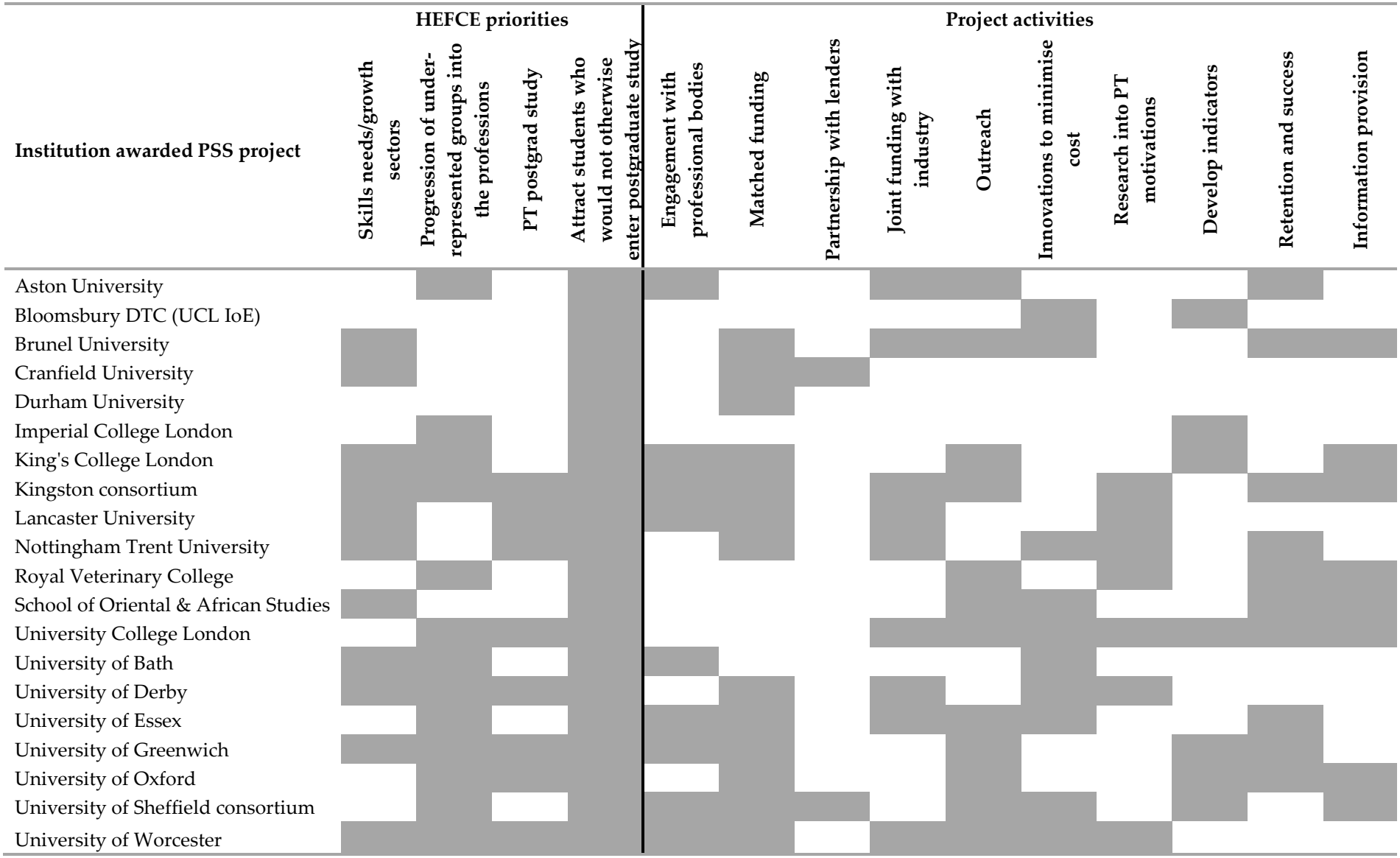

Table A2.3: features of funded PSS projects

Lead institution	Aston University
Other partners	
Project funding	£1,404,476
Project total (including other contributions)	£1,568,149 minimum
Project title	Accessible Excellence and Employability for Taught Postgraduates
Scholarship offer	One hundred scholarships for UK/EU full-time masters who graduated in 2013 or 2014. Value £7,500 to cover fees and living expenses. Criteria are WP-based (family income, gender, disability) but also cover Strategically Important and Vulnerable Subjects.
Dates of contact	3 February 2014 (phone) 31 March 2014 (phone) 17 April 2014 (site visit)
Description	Aston's project aligned with a general institutional push to expand their UK PGT numbers, which are comparatively small. It was a multi-faceted project offering: • Scholarships to PGT students • Internships during the programme • Peer or employer mentoring scheme • Targeted careers advice to PGT students • Free language tuition for PGT students. The additional elements of the scheme beyond scholarships were offered to all eligible PGT students, not PSS award holders alone. Evaluation is being undertaken through paid dissertation internships (10 projects) to be undertaken by masters students.
Key points to note	Aston held a PG careers fair on 31 March to which all PSS projects were invited (and which was well received by those who attended). The project achieved the goal of raising the profile of PGT within the university. Saw PGT applications increase by one third. PGT specialist careers post was very successful, but will not continue once funding ceases. Students reported that funding was crucial to enable participation; partial funding often insufficient to allow participation; academic 'step up' challenging for many

Lead institution	Brunel University
Other partners	-
Project funding	£1,496,697
Project total (including other contributions)	£1,746,697
Project title	Brunel Engineering Postgraduate Support Scheme
Scholarship offer	Forty 'Women in Engineering' scholarships for UK/EU students on nominated programmes; £7,750 fees plus £15,000 maintenance. Twenty industrial masters scholarships for UK/EU students on the MSc Structural Integrity. Fee waiver of £17,000, plus £15,000 living costs.
Dates of contact	24 January 2014 (phone) 28 March 2014 (site visit)
Description	Brunel's project had two main elements. The first sought to address an acute shortage in a particular specialised field of engineering: structural integrity. This covers very large-scale engineering (pipelines, wind farms, transport infrastructure) and how it can be engineered to make it last/be maintained easily. The area currently attracts few UK students and employers report having to recruit internationally – which risks offshoring of jobs. The course is expensive to run. The second element intended to encourage women into engineering, through dedicated scholarships. Although women's progression to PGT in engineering nationally is higher than men's, women are underrepresented in engineering generally and Brunel has identified it has specific issues with women's entry to PGT in engineering. Brunel is working closely with employers to offer a mentoring scheme for the award holders and other women PGT engineers.
Key points to note	The scholarships did not have any other WP criteria attached. The two elements of the project were essentially separate, but were managed by a single co-ordinating group. Recruitment was very successful, as was the mentoring scheme. The proportion of women among PGT engineering students in the faculty doubled from the previous year. All non-scholarship activities will be continued into future years. The project was featured in a Radio 4 documentary about women engineers

Lead institution	Cranfield University
Other partners	Prodigy Finance
Project funding	£3M
Project total (including other contributions)	£5M (minimum)
Project title	A Socially Responsible Postgraduate Loan Scheme
Scholarship offer	No scholarships: up to 100 loans of up to £15,000 for UK/EU students on full-time, technology-based MSc programmes
Dates of contact	7 February 2014 (phone) 30 May 2014 (site visit)
Description	Cranfield's scheme aimed to generalise their existing MBA loan package, which is offered in conjunction with Prodigy Finance Ltd (https://prodigyfinance.com). Prodigy also work with INSEAD. The existing Cranfield scheme has been very popular and has an exceptionally low current default rate of around 0.6%. The PSS project extended this to students on Cranfield's technology MSc programmes. The funding model is based on using a credit future rather than credit history (MBA graduates from Cranfield typically earn £80,000+ pa on completion). A similar actuarial approach will apply here. Cranfield (via PSS, in this instance) puts up the capital, with Prodigy managing the scheme and making a charge. Cranfield aimed to secure endowments from industrial partners to provide future capital. Companies would achieve a zero return, but the capital plus repayments would finance loans across a long period, in return for branding of the programmes.
Key points to note	Cranfield actively participated in discussions with BIS and other PSS projects about finance options. During the project period it did not prove possible to secure additional endowment investments from industrial partners and there is judged to be little prospect of that now, given BIS' loan proposal. However the Prodigy scheme was very popular, with 150 loans of average £12,100. Around 7% of loans applications were declined. Cranfield estimates that 120 of the borrowers would not have been able to enrol without the loan.

Lead institution	Durham University
Other partners	-
Project funding	£1,200,000
Project total (including other contributions)	£2,200,000
Project title	Dunelm Credit Union
Scholarship offer	N/A – proof of concept scheme
Dates of contact	30 January 2014 (phone) 25 April 2014 (site visit)
Description	The project was a proof-of-concept/feasibility study investigating the establishment of a Durham University credit union. Such a facility would have a 'common bond' of the staff, students and alumni of the university who would be access loan finance at low rates, on condition of also being an investor. The concept is based around credit unions and micro-finance more generally. Existing credit unions are based on locality or profession, so the concept is untried in higher education (although Edinburgh has a credit union for its staff). The main purpose of the arrangement would be to lend money to its members for the purpose of taught postgraduate study. This means that loans are limited to alumni of the university who had previously 'paid in', although such contributions could be very low (say £10/month during undergraduate study). Key activities have included investigating the legal and financial framework for a credit union, preparing an option appraisal for the university's governing body and running the procurement process. An early decision has been to partner with an existing credit union rather than set up a separate union *ab initio*.
Key points to note	There has been useful discussion with other PSS projects. Durham's governing body (Council) has members with extensive financial/due diligence expertise. The scheme will launch on 9 September 2015 in partnership with the selected partner, NE First Credit Union, offering tuition fee loans of up to £7,000 over a 5-6 year repayment window.

Lead institution	Imperial College London
Other partners	-
Project funding	£1,500,000
Project total (including other contributions)	£1,520,000
Project title	Provision of financial assistance to home, taught postgraduate students in 2014/15 to aid recruitment and retention of such students from disadvantaged backgrounds.
Scholarship offer	Students with a household income of £25,000 or less: full tuition fee support up to £10,000 and a £5,000 stipend. Students with a household income of between £25,000 and £42,611: full tuition fee support up to £10,000. (Total number of awards dependent on mix of awards made, but expected to be 120+)
Dates of contact	21 January 2014 (phone) 20 March 2014 (site visit)
Description	The scheme offered a straightforward bursary package, addressing shortages in funding for taught postgraduate students and intended to test out the financial aspects of PGT participation. Eligibility is based on financial circumstances (as an undergraduate) alone; no other activity other than dispensing scholarships was planned or undertaken. As there were more applications than there were scholarships available, the tie-breaker was academic merit. The scheme was only open to graduates from 2011/12, 2012/13 and 2013/14 in order to ensure that a recent financial assessment could be accessed.
Key points to note	This was a very 'bare' scheme, with no outreach or other WP elements. However this has the benefit of providing a clear indication of the effect of financial factors on participation in STEM PGT (Imperial's business school is not part of the scheme). Imperial reported an increase in UK PGT applications for 2014 entry (but also an increase in international applications). The college reported surprise at the extent to which financial support affected participation based on the uptake of its awards. Nearly three-quarters of the students supported reported household incomes of less than £25,000 p.a.

Lead institution	Institute of Education, University of London
Other partners	Birkbeck College, London; School of Oriental and African Studies; London School of Hygiene of Tropical Medicine (aka the Bloomsbury Doctoral Training Centre [ESRC])
Project funding	£500,000
Project total (including other contributions)	£500,000
Project title	Design and evaluation of a new PGT route to widen access to social science research training
Scholarship offer	Up to 60 scholarships of £6,921 (stipend only) for UK/EU students
Dates of contact	29 January 2014 (phone) 2 May 2014 (site visit)
Description	The project developed a new programme – the Postgraduate Diploma in Social Science Research Methods – intended to facilitate access to doctoral study for professionals in areas covered by the consortium. This need was identified arising from the ESRC studentship competition held in the Bloomsbury DTC. Here, there are frequently experienced professionals who would benefit from doctoral study but who lack background skills and knowledge in social science research methods to plan and develop a research proposal. The programme is a nine-month diploma designed to introduce students to social science research methods and design. It is intended to fit in with their continued employment, with some blended learning and suitable timetabling. Bursaries provided support for loss of earnings from taking leave/reducing hours in order to take the programme.
Key points to note	The programme is about to begin its fourth iteration/intake. Recruitment has improved and consolidated across the intakes, from nine in the first cohort. It has consistently met or exceeded its diversity targets and the programme seems to be achieving its aims of providing an appropriate route for professionals who have been out of education for some time to prepare for doctoral study. The Institute of Education, University of London, which was the original lead institution on the project merged with University College London part way through the project to become UCL IoE.

Lead institution	King's College London
Other partners	Royal Academy of Dramatic Arts
Project funding	£517,027
Project total (including other contributions)	£1,384,948
Project title	Increasing access to Professional Postgraduate Education in London
Scholarship offer	Thirty-six fully-funded scholarships across the Institute of Psychiatry (10), the cultural industries (five), performing arts at RADA (five), informatics (10) and six PhD studentships in Nursing. The scholarships cover fees at the home rate, plus a stipend of £14,000 (for full-time students)
Dates of contact	27 February 2014 (phone) 4 March 2014 (in-person meeting at York) 30 May 2014 (site visit) 11 May 2015 (site visit, informal)
Description	The project was multi-faceted, covering scholarships in a range of defined areas (as noted above), a summer school (for award holders in the IoP), a mentoring scheme and some background research. Scholarship eligibility was centred around financial need, as measured by undergraduate financial assessments or, for students out of higher education for some time, a measure of household income. EU students were explicitly excluded: this led to one or two queries (including contact from an MP in one case). King's have retained this condition. Fifteen PhD students will act as mentors to help with outreach activity in the area of PGT. Research is concentrating on understanding transition to postgraduate programmes at King's College, drawing on existing data but also collecting a range of contextual data.
Key points to note	King's kindly hosted the October 2014 workshop. The nursing studentships are the only PGR funding provided through PSS. Some internship provision and mentoring will continue in future years. Research found widening participation definitions did not hold into PGT study for London-based students. PSS scholars showed double the proportion from disadvantaged groups than their general PGT population.

Lead institution	Kingston University
Other partners	University of Brighton, University of Coventry, University of Edinburgh, University of Lincoln, Manchester Metropolitan University, University of Plymouth, University of Portsmouth, University of South Wales, Teesside University, University of Wolverhampton.
Project funding	£1,859,909
Project total (including other contributions)	£2,741,285
Project title	Investigating the expectations and attitudes towards PGT STEM study, and post study outcomes from the perspective of students, universities and employers to support and sustain PGT growth in the UK – A collaborative project led by Kingston University
Scholarship offer	At each participating English institution: Full-fee masters scholarships: seven full-time, seven part-time 60% fee scholarship: eight full-time, eight part-time £1,000 fee discount: 10 full-time
Dates of contact	30 January 2014 (phone) 28 May 2014 (site visit)
Description	This was a large, multi-institutional project (the largest consortium in the PSS programme). Each institution awarded scholarships for study on its PGT programmes in STEM subjects. The scholarships were intended for 'local' students, although each institution determined what 'local' meant in its own context. For Kingston, this was students who are within a defined distance of campus; students who ordinarily reside elsewhere but study at Kingston; and students who ordinarily reside in the local area but currently study elsewhere. Awards will be allocated randomly to applicants, rather than on the basis of WP eligibility criteria.
Key points to note	EU students were excluded, based on detailed advice from Kingston's legal team. To address the multi-institutional complexity of the project, a formal collaboration agreement was signed by all parties. Scottish and Welsh partners participated, mainly monitoring their data as comparators, without giving new scholarships. Noted substantial differences in data collection across consortium. Finance was critical for access.

Lead institution	Lancaster University
Other partners	-
Project funding	£547,241
Project total (including other contributions)	£865,930
Project title	Postgraduate Enterprise Academic Partnership (PEAP): Big Data Education Catalyst
Scholarship offer	Forty-five full-fee scholarships for UK and EU applicants (worth £6,500 each). Allocated on academic merit alone. Bursary funding will also be available for placements.
Dates of contact	17 February 2014 (phone) 4 July 2014 (site visit)
Description	The programme addressed an identified skills shortage in the area of 'big data' analytics. There is particular concern about the UK-based labour market here. The programme was designed in collaboration with relevant employers The principal activity was to develop the programme collaboratively and recruit. There was no WP element to the project, which instead addressed industrial strategy imperatives. Students are participating in a project placement as part of their programme, for which they receive a bursary. Employer contributions have been sought to support this.
Key points to note	The programme has a number of variants covering different substantive areas of data science, with a common core. International and UK fee-paying students have also been recruited to the programme which will had a total cohort size of 60, almost half of whom were aged over 30. A member of staff was appointed to run liaison with partner companies and this worked very well – the project suggests this kind of 'hybrid' role is critical. Thirty organisations hosted placements, 18 of which were new to the university. The programme was the most successful in its faculty in 2014/15 and will run again in 2015/16. Recruitment of students occurred relatively late due to programme approval delays. There was a minimum of marketing with success depending mainly on the use of personal communication with applicants.

Lead institution	Nottingham Trent University
Other partners	-
Project funding	£1,457,000
Project total (including other contributions)	£2,514,000
Project title	Widening Participation to Masters Programmes to Meet the UK's Need for Skills and Innovation
Scholarship offer	Full fee waiver and £12,500 living costs (comprising bursary plus placement salary) – 50 awards
Dates of contact	28 January 2014 (phone) 23 May 2014 (site visit)
Description	The project created a new 'Multidisciplinary Masters' (MDM) programme. This incorporates an industrial/professional placement and is intended to enhance student employability and be attractive to employers. It is also intended to introduce flexibility into NTU's masters provision by providing a range of major and minor options where students and/or their employers can construct a programme to follow their interests. MDM draws on modules from across many of NTU's faculties. All MDM students take a core 'interdisciplinary' module focusing on interdisciplinarity in the workplace (e.g. how different specialists work in a team in construction or health). It represents a kind of 'unbundling' (my description) of masters programmes. Important supporting activities have included research with employers to understand their requirements from and views about PGT provision; and taster sessions for potential PGT students (well attended). There is support for employers for the MDM programme, but with some practical challenges raised.
Key points to note	NTU has shifted its part-time MDM intake under PSS to January 2015. This was successful as the part-time route over-recruited. Employers have pointed to a desire for blended and block delivery for sponsored students. Multidisciplinary teams worked well, but creating a cohort identity was challenging. The programme will continue into 2015/16.

Lead institution	Royal Veterinary College
Other partners	University of Bedfordshire, University for the Creative Arts, University of Greenwich, London Metropolitan University, Middlesex University, Ravensbourne, Royal Holloway University of London, Trinity Laban. Brightside Trust.
Project funding	£901,000
Project total (including other contributions)	£1,217,000
Project title	The London Postgraduate Mentoring Project (LPMP)
Scholarship offer	N/A
Dates of contact	28 January 2014 (phone) 19 June 2014 (site visit) 30 January 2015 (site visit)
Description	This was an outreach-themed project which is built around the existing 'AccessHE' collaboration, which itself arose from London AimHigher. The project investigated the transfer of strategies to widen access employed at undergraduate level to taught postgraduate level. It was based on mentorship, rather than the award of scholarship. Each institution planned to recruit 20 mentors from among its existing masters students. Each selected postgraduate would mentor two to five undergraduate students. Mentoring would focus on academic work and career plans rather than being a direct promotion of postgraduate study. Mentors would be able to explain and present their own courses, research and postgraduate life. The project planned to facilitate mentoring at a distance by utilising Brightside's e-mentoring platform, which is used extensively for potential undergraduate students.
Key points to note	Recruiting mentors and mentees proved harder than anticipated. A low level of awareness of PGT study was noted among potential students, especially in some disciplinary areas. There were varying levels of success across the project, but it is difficult to tell what were the principal causes of the differences.

Lead institution	School of Oriental and African Studies
Other partners	British InterUniversity China Centre (Universities of Bristol, Manchester and Oxford); White Rose East Asia Centre (Universities of Leeds and Sheffield); Centre for the Advanced Study of the Arab World (Universities of Durham, Edinburgh and Manchester); Scottish Centre for China Research (University of Glasgow, with other Scottish institutions).
Project funding	£839,292
Project total (including other contributions)	£1,009,292
Project title	Sustainable funding for language-based area studies
Scholarship offer	Five two-year and five one-year scholarships at £20,000 pa. (HEFCE-funded) Five one-year scholarships at £20,000 pa (matching funding) One one-year scholarship at £5,000 Additional scholarships to a total value of £315,000 (HEFCE funded, conditional on match funding).
Dates of contact	5 February 2014 (phone) 28 May 2014 (site visit) 5 February 2015 (site visit)
Description	The project addressed concerns about a low level of demand for masters programmes in strategic languages and area-based studies from UK students. A key issue is ensuring training across both a disciplinary specialism (e.g. geography, anthropology, literature, history etc) *and* sufficient language skills to allow students to carry out research in the original language. This typically requires a two-year masters programme, covering both language and disciplinary skills. Students trained in this way are needed to provide the future academic workforce in these subjects, and to support national diplomatic and trade relations with the relevant areas. Funding was split between the centres, although most of the scholarships will be held at SOAS. Outreach activities ran alongside the scholarships.
Key points to note	New courses were successfully established and recruited to target. Demand continues in 2015/16, especially in Arabic, but UK student demand has dropped away without the PSS awards. The implication, confirmed by funded students, is that scholarship support is essential for these programmes.

Lead institution	University College London
Other partners	-
Project funding	£2,341,105
Project total (including other contributions)	£2,419,581
Project title	Evaluating Mechanisms to Attract and Retain Under-Represented PGT students
Scholarship offer	Full-time fee (£10,800) plus £10,000 maintenance. Approximately 93 awards.
Dates of contact	7 February 2014 (phone call) 21 March 2014 (site visit) 6 February 2015 (site visit)
Description	UCL's was a comprehensive project focused principally on providing scholarships to underrepresented categories of students, but also incorporating some outreach work, research and mentoring activity. Scholarships were available across a total of 34 programmes – it was originally planned to provide awards for 10% of the qualifying cohort on each course. Eligibility was based on financial measures, drawing on undergraduate financial assessments (although other WP factors will be taken into account). A set of outreach activities, including a summer school, were offered, tied to particular departments or programmes. Mentoring support was focused in Brain Sciences where mentors helped with visit days, applicant contact and induction. Funding was also directed to a hardship fund for childcare costs (for PGT student parents) and PGT data collection and analysis.
Key points to note	Although comprehensive, UCL's project was largely devolved in implementation through its faculties/schools (with some central project management and assessment of scholarship applications). With hindsight, they would have adopted a more general scheme. They were able to target scholarships highly effectively (over half of PSS award holders had household incomes below £15k), but the allocation process was labour-intensive. Taster activities were successful but need tighter targeting. They report that PSS was 'life changing' for their most deprived students who otherwise had no prospect of entry to PGT.

Lead institution	University of Bath
Other partners	-
Project funding	£537,500
Project total (including other contributions)	£855,000
Project title	MSc Modern Building Design
Scholarship offer	Thirty awards in total: £8,500 fee waiver and £4,500 placement bursary. Fifteen awards of £6,000 bursary will be available for award holders who meet certain WP criteria (which includes Women in Engineering).
Dates of contact	28 January 2014 (phone) 13 June 2014 (site visit) 13 February 2015 (site visit)
Description	The programme was designed to provide a new model which is attractive to employers. It comprises 240 credits (normal MSc = 180 credits), with 120 credits of taught modules and two 60 credit independent studies – one a placement, one a project. This is a longer/bigger masters, which is closer to the Bologna/European model (15 months' duration). Close involvement of employers (in terms of arranging projects) has been monitored by an industrial liaison panel, which will also be consulted on programme content, outcomes and potential co-funding. WP activity will principally be via the promotion of programmes and the use of bursaries to help underrepresented students enrol.
Key points to note	Original plans were to offer a second parallel programme in a different field of engineering, but this proved unviable. The industrial liaison panel worked well and employers were enthusiastic about the programme, although this has not resulted in further direct funding support. Recruitment was short of target but in a difficult-to-recruit area. Significant effort to recruit in the latter stages of the admission cycle showed traditional marketing/advertising techniques to be ineffective. Conversely the programme has shown strong demand for 2015 entry (179 applications), but only two UK applications! Discussion with existing UK students showed satisfaction with the degree; finance was the critical factor in enrolment.

Lead institution	University of Derby
Other partners	-
Project funding	£598,933
Project total (including other contributions)	£1,362,455
Project title	New Models for Employer Driven Postgraduate Provision in the Engineering Sector
Scholarship offer	Fifty full-time scholarships (fee waiver, plus 24 weeks' wages – latter employer-funded) Twenty part-time scholarships (fee waiver, match-funded by employers)
Dates of contact	4 February 2014 (phone) 8 July 2014 (site visit)
Description	PSS supported a new MSc Innovative Engineering Solutions programme. Its aim is to improve the employability of postgraduate students in this area and address employer skills/innovation gaps in local/regional industry. Two different models were tested. The first is a full-time route where graduates are selected onto the programme as a kind of 'graduate scheme' producing a shortlist from which participating employers select. Students receive an intensive semester of masters-level teaching, before undertaking a 24-week work placement, including pitching a project to employer hosts. At the conclusion of the programme, employers have the option to retain the student as an employee. Each participating employer could put forward an existing employee for formal, certificated workplace mentoring training. The part-time route will offer e-learning provision to existing employees from local industry. The programme was designed for both graduate engineers and graduates from other cognate disciplines.
Key points to note	Both programmes will continue into 2015/16. There is strong interest from international students. The academic rationale has worked well and new employer partnerships established. The quasi-employee role for students created challenges for all parties. Employers were very selective in their choice of students for placements. The resources required to set up the programme was high and it is unlikely to have been possible without PSS.

Lead institution	University of Essex
Other partners	
Project funding	£877,765
Project total (including other contributions)	£1,289,487
Project title	Increasing the Rate of Transition from Undergraduate to Taught Postgraduate Study for Students from Under-Represented Groups: Mentoring and Traineeships for PGT Progression
Scholarship offer	One hundred £5,000 fee discounts in exchange for undergraduate mentoring One hundred paid placements (£2,000 bursary, plus total £3,600 placement salary)
Dates of contact	10 February 2014 (phone) 11 July 2014 (site visit)
Description	This scheme tested two models of something-for-something taught postgraduate support. The first was a fee discount in exchange for work mentoring undergraduate students, which itself represents an accredited training opportunity. The second was a paid work placement, in lieu of a dissertation. Funding was be targeted at students meeting a set of WP characteristics, covering financial support as an undergraduate, coming from a low participation neighbourhood, mature entry as an undergraduate, first generation higher education or disabled. Essex's Institute for Social and Economic Research was engaged to undertaken evaluation of the effect of the scheme.
Key points to note	The university's standard PGT fee is about £5,000, so these awards comprised a full fee waiver in most cases. The target was revised to 165 total, with some virement across the two strands (on the basis that the mentoring strand proved more popular among students than placements). Both mentoring and placements will continue into 2015/16 (partly with PSS2 support). Feedback from employers has been positive, especially from the third sector. Funding was reported as critical by half of the mentor-stream students and three-quarters of those on the placements. However, there was evidence that in the case of Essex, a partial contribution could be effective. The scheme was most popular among Essex alumni.

Lead institution	University of Greenwich
Other partners	-
Project funding	£563,493
Project total (including other contributions)	£1,508,403
Project title	Greenwich Fast Forward Masters Programme
Scholarship offer	One hundred and fifty awards of 60% tuition fee discount plus £500 for study expenses
Dates of contact	10 February 2014 (phone) 5 August 2014 (site visit)
Description	Greenwich's scheme provided a straightforward fee discount to students with qualifying household income levels (less than £40,000) on a first-come-first-served basis. Students needed a first or upper second class honours degree to be eligible. Students joining the scheme could also receive mentoring support from employers and young professionals and a pre-paid debit card loaded with £500 for use for study-related purchases.
Key points to note	The fee discount was split 50/50 between HEFCE funding and Greenwich waiver (previewing the PSS2 arrangement). The response from Greenwich finalists and alumni was particularly strong, building on direct contact through email and lecture 'shout outs' among other forms of marketing. The simple nature of the scheme was very effective and here contrasted with PSS2 where a more subtle approach did not work as well. However, the partial scholarship was not sufficient for some of the most deprived students who reported remaining unable to afford to participate. Greenwich is considering introducing a scheme for 2016/17 to complement possible state-backed loans. The university saw substantial participation from first-generation students and those of BME background. The scheme has also generated a significant increase in the profile of PGT study within the university which is being taken forward into future years. A particular learning point is around part-time PGT study, where PSS has shown clearly that treating this simply as a 'slower' version of full-time study is a mistake.

Lead institution	University of Oxford
Other partners	-
Project funding	£3M
Project total (including other contributions)	£3.75M minimum
Project title	Scholarships, Career Development Programme and Research: supporting underrepresented groups among Oxford's Home/EU PGT students
Scholarship offer	One hundred and fifteen scholarships of full tuition/college fee and £13,863 living costs (full-time); part-time awards will cover fees and a grant for living costs (unspecified)
Dates of contact	27 January 2014 (phone) 27 June 2014 (site visit)
Description	This was a comprehensive project. It provided extensive scholarship support for students from disadvantaged backgrounds. A second element was provision of paid research internships for current undergraduates to encourage them to consider postgraduate study *and* to ensure that disadvantaged students do not suffer from lack of internship opportunity (since this is increasingly an advantage or even requirement in PGR applications). Finally a comprehensive programme of research using Oxford's application data and additional data collection has been undertaken. Oxford emphasised the latter in preference to outreach in order to ensure that their future strategy is informed by evidence about pockets of underrepresentation.
Key points to note	Oxford has used the scheme to attract substantial additional donor support. A Graduate Access Manager was appointed to manage the scheme and undertake project research and was made permanent during the project. Demand for PGT places at Oxford was very high and admission decisions were based on academic criteria alone, blind to geography (i.e. UK applicants are in competition with non-UK applicants, not treated separately). This, and the timing of PSS, meant the emphasis was on conversion of applicants already offered a place. The profile of PGT has been raised within the university. Scholarships were allocated on the basis of socio-economic background, but this did not disadvantage those with protected characteristics. Award holders reported that PSS was crucial for participation.

Lead institution	University of Sheffield
Other partners	University of Leeds, University of Manchester, Newcastle University, University of Sheffield, University of York.
Project funding	£2,993,683
Project total (including other contributions)	£5,321,034
Project title	Widening Access to Postgraduate Study and the Professions
Scholarship offer	Leeds 60; Manchester 50; Newcastle 40; Sheffield 90; Warwick ~50; York 60. Award amounts vary by institution but typically cover full fee waiver and a bursary.
Dates of contact	N/A – see key points.
Description	The Sheffield-led consortium was a comprehensive project, which including four substantial activities. A range of scholarships were awarded for PGT study, targeted at those from disadvantaged/underrepresented backgrounds. Specific eligibility criteria varied across the consortium, but with extensive overlap. Information, advice and guidance activities were undertaken in each institution to investigate the role of non-financial factors in encouraging take-up of PGT programmes. An 'academic innovation' strand investigated potential changes to the format, mode of delivery and structure of PGT programmes in order to make them more attractive to potential students and employers. Finally, a research strand conducting extensive survey research and data analysis with alumni and current UK PGT students in the consortium institutions and, via the Futuretrack study, nationally. Finally, exploration of possible funding models took place with a range of financial organisations, including banks and credit unions.
Key points to note	I have been involved in this project as part of the research team and as the data expert on the project steering group. An external company – CFE Research – was commissioned to undertake independent project evaluation. Funds redirected from unused loan collateral were used to provide 100+ additional studentships. Recruitment was strong and strongest where schemes were simple. Funding was vital for many of the PSS award holders to participate. The award holders formed a self-supporting peer network. Investigation of information, advice and guidance for PGT demonstrated the need for interventions.

Lead institution	University of Worcester
Other partners	-
Project funding	£610,000
Project total (including other contributions)	£1,475,306
Project title	Taught Masters in Business Innovation and Leadership
Scholarship offer	Forty awards. Cover full fee for Postgraduate Diploma in Leadership and Management. Additional payment for work placements. Business start-up students will receive an allowance of £2,500 to help with start-up costs.
Dates of contact	3 February 2014 (phone) 20 June 2014 (site visit) 25 February 2015 (site visit)
Description	The programme was intended principally for un/underemployed graduates in the local area to support them into graduate-level employment via work experience or starting their own businesses; and for students who are already employed. The essential idea coheres around a kind of 'masters internship' scheme. The new programme draws on some existing MBA provision. Incubator space for new businesses was provided at the university. A key purpose of the scheme was to work with local employers to demonstrate the benefits of postgraduate education and of postgraduates for their businesses.
Key points to note	The first students to graduate from the scheme will complete in January 2016. The programme has had a number of consequential benefits for the university's broader relationships with local and regional businesses. Entrepreneurship activity has been challenging. This was the hardest aspect of the scheme to recruit to. PSS investment will provide a base for this work in future. The main route (not entrepreneurship) recruited close to target and drew in a diverse range of students, many of whom would not have otherwise seriously considered PGT study. A number of these students are employed with local businesses who would not have engaged with the university without PSS. Working in a largely rural county is challenging, with many small service sector businesses and a lack of transport links.

List of Abbreviations

BIS	Department for Business, Innovation and Skills
BME	Black and minority ethnic
DLHE	Destinations of Leavers from Higher Education
DWP	Department of Work and Pensions
ESRC	Economic and Social Research Council
FSM	Free school meals
HE	Higher education
HEFCE	Higher Education Funding Council for England
HESA	Higher Education Statistics Agency
HMO	House in multiple occupation
HMRC	Her Majesty's Revenue and Customs
IoE	Institute of Education
i-MAP	Innovation in Market Assurance of New Programmes
MDM	Multidisciplinary Masters (Nottingham Trent University)
NSP	National Scholarship Programme
NS-SEC	National Statistics Socio-Economic Classification
PCDL	Professional and Career Development Loan
PGT	Postgraduate taught
PGR	Postgraduate research
PSS	Postgraduate Support Scheme
SFE	Student Finance England
SIV	?
SLC	Student Loans Company
SME	Small and/or medium-sized enterprise
STEM	Science, technology, engineering and mathematics
UCAS	University and College Admissions Service
UG	Undergraduate
UKCGE	UK Council for Graduate Education
WP	Widening participation