

WIDENING PARTICIPATION FROM UNDERGRADUATE TO POSTGRADUATE RESEARCH DEGREES

A Research Synthesis

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1 EXECUTIVE SUMMARY

This research synthesis was commissioned by the National Co-ordinating Centre for Public Engagement (NCCPE) and the Economic and Social Research Council (ESRC) to investigate research and summarise findings about widening participation from undergraduate to postgraduate research degrees. It discusses the evidence in this area about UK-domiciled students, but with some reference to international evidence where appropriate. It is clear that this is a complex and somewhat under-researched area, but one which is growing in importance. Undergraduate and postgraduate student numbers have risen rapidly in recent years and although there has been stability at postgraduate research level, there is increasing recognition both of the need to ensure equality of access to research degrees to secure the diversity and vitality of the research workforce and of general 'inflationary' pressures on qualifications, pushing people towards gaining higher qualifications still.

The synthesis shows that, in contrast to initial access to higher education, there is little research on entry to postgraduate study, including postgraduate research degrees. There is some research on the effect of academic and financial factors on research degree entry and a reasonably well-developed body of work focusing on women's underrepresentation at doctoral level, especially in the sciences. The evidence base relating to potential inequalities on the basis of ethnicity and social class is more limited, with some obvious gaps. Beyond that, there are a range of areas where there is very little or no previous research, including non-doctoral research degrees, the application process for research degree study, sources of advice, graduate aspirations, transfer of subject and institution between undergraduate and postgraduate research levels, sources of maintenance support and the influence of family commitments, student debt, disability and sexuality.

1.1 Are postgraduate research students drawn disproportionately from certain backgrounds or groups?

- The clearest evidence of underrepresentation is of the group about whom there is the most readily-available data and the highest volume of existing research: women (section 9).
- It is reasonably well-established that socio-economic class has no direct effect on *immediate* progression to postgraduate research study once academic factors are taken into account. However there is some suggestion that class inequalities re-appear in *later* entry to postgraduate research study, with those from lower socio-economic

classes being disadvantaged. This is supported by international evidence (section 7).

- Although it has received comparatively little attention in recent debates, ethnicity has a bearing on access to postgraduate research degrees, both in immediate progression after a first degree and in later transitions. Many, but not all ethnic groups are underrepresented at postgraduate research level compared to the white group (section 8)
- Access to financial resources (as distinct from socio-economic class) emerged as another factor affecting access to postgraduate research degrees. However the available evidence does not suggest a clear link between lack of student debt and research degree participation. There is some evidence that women and students from lower socio-economic classes are less likely to receive research council studentships, but more evidence is required in this area (section 6).
- Progression to postgraduate study varies according to 'academic' structural factors such as attainment, subject of study and institution attended at first degree level. Attaining first-class honours, graduating in physical science subjects and attending a pre-1992 university are all closely associated with progression to a research degree. These characteristics are not evenly distributed across gender, ethnicity and socio-economic class which may partly account for apparent inequalities in access to research degrees along these lines (sections 3.2, 3.3 and 5).

1.2 Are there potential differences in recruitment between types of university or subject area?

- There are clear and substantial differences between subject areas which structure the nature and volume of postgraduate research study (sections 3.2 and 5.2).
- Postgraduate research students are very differently distributed across both subject areas and institutions to undergraduate patterns. Research students are overwhelmingly concentrated in pre-1992 universities, especially those which belong to the Russell Group (sections 3.3 and 5.3).
- Little is known about the flow of students between and within subject areas and institutions between undergraduate and postgraduate research levels (sections 2.4, 3.4, 5.2 and 5.3.3): that is, do students

move from one sector or subject to another, or do subjects and institutions largely recruit from their own graduates?

- We can be reasonably certain that attending a selective university as an undergraduate, regardless of other background characteristics, has a strong positive influence on progression to postgraduate research study. Whether or not this is considered fair and meritocratic, there are certainly implications for the diversity of the postgraduate research student body (sections 5.3 and 6.2.2).

1.3 Does evidence demonstrate an impact or implication of such differences on the diversity of the research workforce?

- There is a high likelihood that the patterns of entry to postgraduate research study by gender and ethnicity will affect the diversity of the research workforce (sections 8.6 and 9.1).
- It is difficult to determine with certainty whether there are implications for the diversity of the workforce arising from patterns of entry by socio-economic class, although we suspect this to be the case (section 7.5).

1.4 Are there gaps in the information available?

- Much research does not separate postgraduate research students from postgraduates more generally, making drawing specific conclusions about research students more tricky (section 2.2.1).
- There is no initial participation rate statistic produced for postgraduate research study. Such a statistic could be analysed according to the widening participation indicators discussed in this review (section 3.1).
- There are significant gaps in the data available about postgraduate research students' backgrounds. Socio-economic class data is largely missing and that which is collected at present is not thought to be valid. This might be better captured by record linking in the Higher Education Statistics Agency (HESA) Student Record between undergraduate and postgraduate levels. Information on research students' parents' education is not (yet) collected. Little is known about postgraduate research students' dependants (sections 7.1, 7.3 and 10.1).
- Understanding of perceptions of, aspirations towards and motivations for postgraduate research study among potential students is largely

absent and could be vastly improved. Little is known about the image of research degrees among potential students' or their understanding of any likely benefits of research degree study. This ought to be analysed in terms of the widening participation indicators discussed. Current research suffers from being attitudinal only or cross-sectional, so that intentions are not compared to outcomes. Later entrants to research degrees also need to be better researched (section 4).

- The process of finding out about, applying for and gaining admission to postgraduate research study is barely understood. There is no national application data and this hampers any attempt to carry out investigations into widening participation such as those done at undergraduate level with Universities and Colleges Admissions Service (UCAS) data (section 3.4).
- Better data is required on the sources of tuition and maintenance funding for postgraduate research students according to their background characteristics. Research is also needed on the impact of finance on decision-making at this level (section 6).
- Finally, for the three major widening participation indicators (ethnicity, gender, socio-economic class), better explanations of the causes of any inequalities in access to postgraduate research are required. Much existing research is descriptive or based on testimonies which hint at explanations, but are too small in scale to establish broad applicability (sections 7, 8 and 9).

1.5 Recommendations for further research

R1 A better understanding of the extent and nature of sub-doctoral research degrees is required, including the characteristics and motivations of students taking such degrees.

R2 There is a clear need for research into the process of applying for research degree study. This should cover how potential research students find out about research degrees and how they decide whether and where to apply (including their aspirations and perceptions of the benefits or drawbacks of a research degree). It should cover factors affecting their decision to apply and the decision-making process. It

1.5 Recommendations for further research (continued)

should also investigate whether there are inequalities in the offer of a place and/or funding on the basis of social class background, ethnicity, gender and so on. The *Futuretrack* project offers a potential model for such a study.

R3 Research is needed on the mobility of students across subject disciplines and institutions between undergraduate and postgraduate research levels. There are clear indications that students with a first degree in certain subjects and from certain institutions are more likely to progress immediately to postgraduate research. However other patterns of 'import' and 'export' are unknown.

R4 Very little is currently known about postgraduate research students' financial circumstances. Further research is needed to establish the effect of financial factors on access and to understand sources of maintenance funding, the potential impact of student debt and supplementary income and employment.

R5 There should be further investigation of the influence on social class background on access to postgraduate research degrees, particularly in trying to understand patterns of non-contiguous entry and on the implications of any inequalities observed for the diversity of the research workforce.

R6 Further research is required into ethnic inequalities in access to postgraduate research degrees, especially that which moves beyond description to consider why any differences arise.

R7 Similarly, there is scope for a better understanding of the reasons why women are less likely to enter a research degree than men (across all subjects). An appropriate starting point would be large-scale quantitative research which compares participant and non-participant women.

R8 There is a paucity of research on the impact of other factors on take-up of postgraduate research, including family commitments (children, intimate partnerships), disability and sexuality. These areas should be investigated further.