

Postgraduate Research Student Career Development in the UK

Experiences, insights & opportunities



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Executive summary

As the purpose of the PhD has extended to equip individuals with the skills necessary to embark on careers across a range of sectors, the importance of career development has grown. Despite sustained policy and funder support for a broader conception of the PhD, awareness and acceptance of this shift remains uneven. Careers beyond academia continue to be positioned as 'alternative', even though they represent the predominant destination for most doctoral graduates.

In recognition of the increasing importance of preparing PGRs for a range of careers, UKRI, the UK's largest funder of PGRs, commissioned this study. The aim was to gain insights into PGRs' current experiences and perceptions of career development to inform a series of recommendations, intended to act as catalysts for the ongoing enhancement of career support.

Between late November 2025 and late March 2026, PGRs across the UK were invited to share their views. The voice of the PGR community was foregrounded using the innovative 'Listening Rooms' methodology. Additional data was gathered through an online PGR survey, an online poll and a focus group discussion. In parallel, a sample of 35 stakeholders from across the UK Higher Education and research ecosystem took part in long-form interviews and 9 participated in a round-table analysis of the PGR Listening Rooms data. In total, over 161 PGRs and 44 stakeholders shared their views and experiences through these combined opportunities to participate.

A complementary review of the associated literature and existing career development practice within the UK was conducted to provide context to the findings of this study.

The literature suggests that PGRs' perceptions of career development, and their resulting levels of engagement, are shaped by a range of internal factors, external influencers and external circumstances. PGRs are not equally able to access career development, with certain groups experiencing particular barriers. These include PGRs with protected characteristics, international PGRs, those from lower socio-economic backgrounds, those who work part-time and PGRs who are not part of a doctoral cohort.

PGRs' career aspirations are shaped by a complex combination of personal factors, not solely related to their disciplinary area. Factors can include ambiguity regarding career outcomes; poor understanding of the benefit of doctoral-level research skills in employment settings; misalignment of career aspirations or expectations; a lack of visibility and clarity regarding career destinations and mixed levels of employer awareness of the value of doctoral graduates. Limited employer awareness is mirrored by PGRs' narrow understanding of the value they offer in a range of employment contexts.

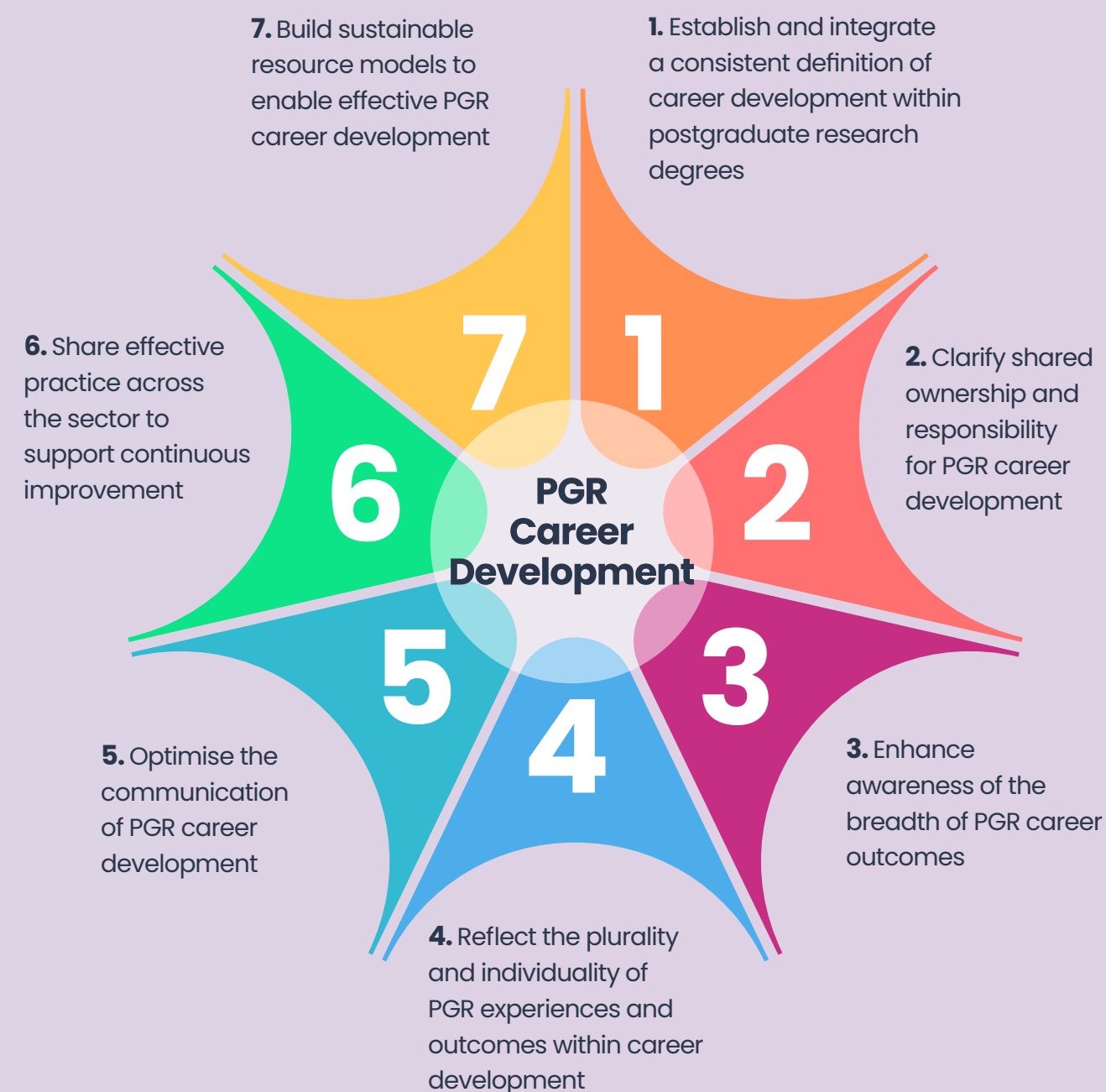
The review of existing provision identified examples and case studies of effective practice across the sector. In addition, a range of commercial and open-access platforms and frameworks are available that support PGR career development. However, there remains an opportunity to foreground and further enhance PGR focused career development across the UK.



Analysis of PGR and stakeholder data highlights the following findings:

- **Variable understandings of career development** exist among PGRs and stakeholders, leading to inconsistent provision and engagement.
- **Conceptualisations of career success are highly diverse**, influencing PGRs' motivation to engage with career development.
- **PGRs construct personal definitions of success from uneven signals**, often defaulting to academic norms even when aspiring to a role beyond academia.
- **Attitudes to career development vary**, with some PGRs viewing thesis completion as sufficient and others perceiving career development as irrelevant or poorly timed, resulting in delayed or deprioritised engagement.
- **Survey data indicate strong demand for exposure to industry and non-academic sectors.**
- **International PGRs face compounded barriers**, due to factors including visa constraints, cultural adaptation, distance from support networks and financial pressures, which shape their engagement with career development.
- **Peer networking and peer support** are consistently identified as important by both PGRs and stakeholders.
- **Lack of clarity about career development at the start of the PhD** contributes to its low prioritisation.
- **Barriers to engagement** include time constraints, competing priorities, evolving professional identity, limited awareness of provision, unsupportive disciplinary norms or supervisors and personal circumstances.
- **Opportunities for enhancement** include cross disciplinary and cross sector networking, strong PGR communities, mentoring and coaching, broader sector exposure and empowering PGRs to take ownership of their career development.

Drawing on the insights from participants and underpinned by the review of literature and current practice, a **series of tentative, interconnected recommendations** are proposed. They are presented as catalysts for further conversation and collaboration, intended to contribute to the sector's ongoing efforts to enhance PGR career development, outcomes and research culture:



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Glossary

AHRC – Arts and Humanities Research Council

Alt-Ac careers – Careers other than in academia

BAME – Black, Asian, and Minority Ethnic

BBSRC – Biotechnology and Biological Sciences Research Council

CDT – Centre/s for Doctoral Training

CPD – Continuing Professional Development

DHLE and Long DHLE – Destinations of Leavers from Higher Education, and Longitudinal Destinations of Leavers from Higher Education (~ 3.5 years after graduation)

DNA – Developmental Needs Analysis

DTP – Doctoral Training Partnership

DSIT – The Department for Science, Innovation and Technology

EOI – Expression of Interest form

EPSRC – Engineering and Physical Sciences Research Council

ESRC – Economic and Social Research Council

GO – Graduate Outcomes survey (HESA's)

HASS – Humanities And Social Sciences (also see HSS)

HE – Higher Education

HEI – Higher Education Institution/s

HESA – Higher Education Statistics Agency

HSS – Humanities and Social Sciences

IDP – Individual Development Plan

MRC – Medical Research Council

NCUB – National Centre for Universities and Business

NERC – Natural Environment Research Council

PD – Professional Development

PDG – PGR Development Group (University of Liverpool)

PGRs – Postgraduate Researcher/Postgraduate Research Student/s, see also PhDs

PGT – Postgraduate Taught Student

PIPS – Professional Internships for PhD Students

PhDs – Doctor of Philosophy, also referred to as PhD candidates. The primary focus of this report is on research doctoral students (PhDs). Engagement was not sought with individuals pursuing professional doctorates, practice-based doctorates, collaborative doctorates, PhD by publication, clinical doctorates or dual award doctorates (UKCGE *et al.*, 2024, p.22). PGR alumni are outside the scope of this study.

PRES – Advance HE's Postgraduate Research Experience Survey

SHAPE – Social Sciences, Humanities, and the Arts for People and the Economy. Using CAH-1 from HESA 'non-science' grouping this includes: Geography, Earth and Environmental studies (Natural Sciences), Law, Business and Management, Language and area studies, Historical, Philosophical and Religious studies, Education and Teaching, Combined and General studies, Media, Journalism and Communications, Design, and Creative and Performing Arts, Geography, Earth and Environmental Studies (Social Sciences).

SHLR – Sheffield Hallam Listening Rooms

SI – Shift Insight

SME/s – Small and Medium-sized Enterprise/s

STEM – Science, Technology, Engineering and Mathematics. Using CAH-1 from HESA 'science' grouping this includes: Medicine and Dentistry, Subjects allied to Medicine, Biological and Sport Sciences, Psychology, Veterinary Sciences, Agriculture, Food and related studies, Physical Sciences, Mathematical Sciences, Engineering and Technology, Computing, Architecture, Building and Planning, Geography, Earth and Environmental Studies (Natural Sciences).

STEMM – Science, Technology, Engineering, Mathematics and Medicine.

STFC – Science and Technology Facilities Council

SWOT – Strengths, Weaknesses, Opportunities, Threats

TNA – Training Needs Analysis

TRAC peer groups – The Transparent Approach to Costing (TRAC) peer groups places all UK HEIs into one of six groups, labelled A to F, based on research income as a percentage of total income. HEIs in group A have a medical school and at least 20% research income of total income, whereas group E have a research income less than 5% of total income and total income less than or equal to £150M (The Transparent Approach to Costing (TRAC), 2022/2023).

UG – Undergraduate

UKCGE – UK Council for Graduate Education

UKRI – UK Research and Innovation

Transcript labels – Where PGRs have been quoted from the Listening Rooms conversations each quote is labelled PGR, T1-40 for the transcript number, and R1-3 for the respondent number within that discussion. From the interviews, stakeholder quotes are labelled with the stakeholder's job title, stakeholder category (Design/Deliver/Enable/Advocate/Informal), the discipline area they primarily work in SHAPE or STEM, the TRAC peer group letter A-F if they work at a HEI, N/A if they are based in another sector.

Introduction

The changing landscape of PGR development

16 Perceptions and experiences of career development



In 2020, the Quality Assurance Agency for Higher Education (QAA) noted that the purpose of the doctorate as an entryway to the academic profession had begun to shift, with doctoral graduates increasingly fulfilling a diverse range of jobs across all sectors. This ongoing change has been echoed in the emergence of new forms of doctoral degree that reflect the requirements of a broader range of professional contexts (QAA, 2020).

In parallel, successive UK governments have opened access to higher education, reflected in the 60% increase in UK PGR candidates between 2000–2001 to 2020–2021 (Taylor and Wisker, 2023). Yet despite the increased diversity of both provision and career outcomes, a majority of PGRs within this growing community continue to aspire to an academic career (Hancock, 2021; Advance HE, 2020).

Furthermore, while the number of PGR graduates has increased, the number of academic roles has not kept pace (Skakni *et al.*, 2026). The resulting mismatch between those pursuing academic roles and the number of opportunities available, has inevitably led to discussion on the value of PhDs (Kwon, 2025), and the career destinations of doctoral students.

While the increased likelihood of highly skilled, talented PGR graduates securing careers in sectors other than academia can be considered as a positive outcome for both the individual and the wider economy, this perception may not be shared by those for whom an academic career was the goal.

Even so, the UK Government is clear in its intention to encourage skilled graduates to pursue a wide range of potential careers and contribute to the 'knowledge economy' (Hancock, 2023). In response, funders and academic institutions have sought to increase the readiness and ability of PhD graduates to translate and transfer the knowledge, skills and experience gained within their PhD studies, through the provision of research and career development opportunities.

As the single largest funder of doctoral students in the UK, supporting around 20% of postgraduate researchers across all disciplinary areas, UKRI has a key role to play in the growth of a knowledge-based economy and is uniquely positioned to support the Government's mission and DSIT's priorities. These emphasise economic growth and expanding opportunities by disconnecting an individual's background from their future success (HM Government, 2024), both of which UKRI's doctoral training investment addresses (UKRI, 2025). "DSIT and UKRI share the common objective of maximising the impact of government

action to drive national and regional growth through supporting R&D, technology and innovation" (HM Government, 2025). UKRI funding of PhD skills feeds directly into DSIT's R&I aims, including the growth of innovative companies.

Indeed, a core strand of UKRI's mission is to enable individuals to succeed across a diverse range of career pathways, vital to delivering "societal and economic progress" (UKRI, 2023). This mission has been communicated via the publication of the New Deal for postgraduate research (UKRI, 2023) and is captured in the Statement of Expectations for Doctoral Training (UKRI, 2024b). The Statement outlines the requirements placed on funders, research organisations and students themselves, regarding their professional development as "globally competitive researchers, able to use their skills to thrive across a range of sectors and careers" (UKRI, 2024b, p.14).

This concern for the career development and success of doctoral students contributes to the broader focus on research culture, which has emerged across the sector in recent years. The introduction of the Strategy, People and Research Environment (SPRE) element within the upcoming REF2029 reflects this focus. Similarly, UKRI's New deal for postgraduate research: response to the call for input, published in 2023 (UKRI, 2023), and funding of CRAC/Vitae's review of career development provision

in 2024, have further embedded the ongoing support and development of postgraduate researchers as a key priority across the sector (CRAC *et al.*, 2024).

It is therefore critical to understand the extent to which this ongoing commitment to equipping PGRs for careers both within and beyond academia is succeeding. How is career development experienced, understood and perceived by both PGRs and those who support them? Which approaches, opportunities and initiatives are most effective in helping our diverse doctoral community to recognise their value across a range of future careers?



Perceptions and experiences of career development

It is in this context that UKRI has funded the current study to explore PGRs' perceptions and experiences of career development within the UK research ecosystem. While necessarily focused and limited in scope, the methodology utilised has sought to foreground the thoughts and reflections of 80 PGRs and 35 staff and stakeholders, whose roles position them in support of PGR career development. Employing targeted interviews and innovative 'Listening Room' methods, the study has been designed to enable insights into the lived experiences of research students and the ways in which they understand, engage with, interpret and prioritise aspects of research and career development within their doctoral studies.

Through an open call for expressions of interest, the study sought participants from across the nations of the UK, representing different stages of study, disciplines, full-time and part-time study, individual scholars and those within cohorts, regardless of funding source. The call and sampling process actively focused on recruiting PGRs with a range of different backgrounds and life experiences and aimed to respond to the varying distribution of PGRs who embody protected characteristics and other life circumstances across disciplines.

Following a detailed review of literature on PGR career development and the experience of doctoral study and a review of current practice, the following sections of this report present a discussion of the key insights provided by participants. The themes and issues identified through this discussion contribute to a series of tentative recommendations, intended to act as a catalyst for further conversation on how the sector collectively supports PGRs to succeed.

A note on terms used

The working definition of career development used in this report refers to the opportunities, activities and resources available to PGRs, beyond those required to complete their PhD, and the process of engaging with this provision in pursuit of short and long term career goals. This definition is informed by the Career Development Institute (Career Development Institute, 2026), the Concordat to Support the Career Development of Researchers (UKRI, 2019) and Imperial College London (Imperial College London, 2026) definitions of career development and career development activities.

The terms doctoral student, PhD student and PGR are used interchangeably within this report. Where discussing literature, the terminology used therein has typically been mirrored. The report is focused on postgraduate research students registered at HEIs within the UK. Engagement was not explicitly sought with individuals pursuing professional doctorates, practice-based doctorates, collaborative doctorates, PhD by publication, clinical doctorates or dual award doctorates (UKCGE *et al.*, 2024, p.22).





Literature review of PGR career development

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Literature on the experiences of doctoral students and on the definition, delivery and impact of career development is complex, with authors approaching these topics from a range of perspectives. To inform the current study, a comprehensive review of research, sector reports, surveys and available data has been undertaken. Collectively, this review highlights key themes, drivers and barriers that combine to shape the perceptions, engagement and career trajectories of PGRs. These factors have been categorised within figure 1, opposite, and underpin the analysis of the data provided by participants in the later sections of this report.

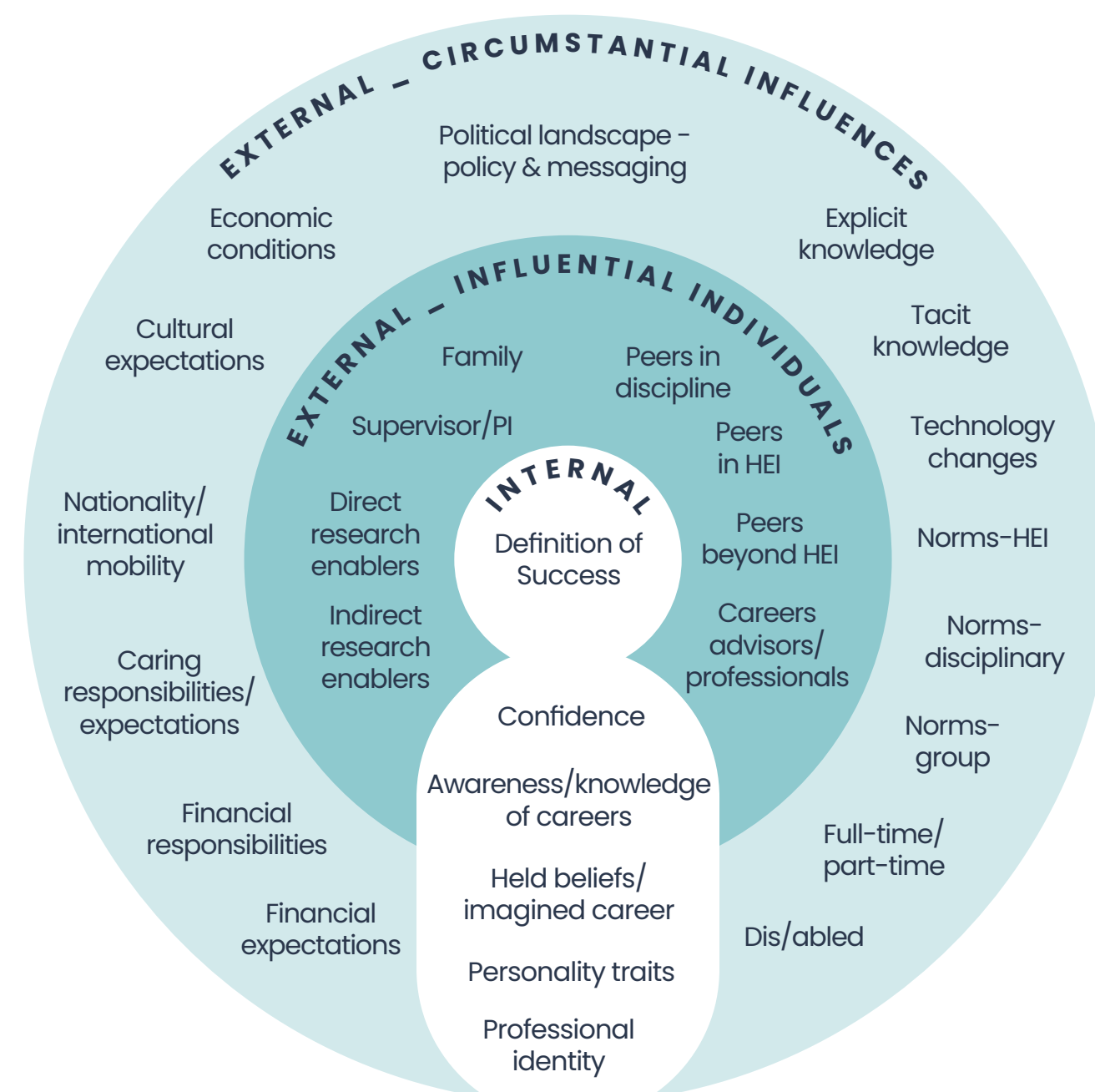


Figure 1 Grouping the main internal influences, external influencers and external circumstances that impact on the perceptions, engagement and career trajectories of PGRs identified within the literature.

The impact of ambiguous definitions

Across the literature, and in contrast to the uncomplicated policy view, PhD employment emerges as complex, varied and nationally specific.

Hancock, 2023, p.1526

Many of the terms commonly used around PGR careers and career development are ill-defined and loosely or interchangeably used. The imprecise use of terms can lead to a lack of clarity, unintentional oversights and can impact individuals' willingness to engage with career development. This vagueness in turn impacts data analysis and comparison of studies, as well as directly effecting PGRs themselves from the point of recruitment onwards. Indeed, PGRs' sensitivity towards specific terminology has been noted within the literature (Nolan and Weatherston, 2015). These aspects are important when considering PGR career development, as they can shape perceptions of potential career trajectories.

Reporting PGR outcomes

A recurring issue in reporting PGR graduate outcomes is the imprecise use of terms such as 'academia.' When PGR graduates are said to have secured roles in academia, it is often implied, without being stated, that these are research positions. This obscures the wide range of roles within universities,

many of which do not involve research, and offers no insight into contract stability (Lane *et al.*, 2025).

Similar ambiguity surrounds the term 'industry.' If 'academia' is sometimes used as shorthand for research roles, 'industry' can be used to imply the opposite. Yet the term varies widely in scope, referring either narrowly to manufacturing or more broadly to "all fields of future workplaces and public engagement, from industry to business, government, NGO's [non-governmental organisations], charities and cultural institutions" (European Commission, 2011, p.6).

Even the concept of a 'research role' is not straightforward. There is no internationally agreed definition of what constitutes doctoral-level research in a career role (Hancock, 2021, p.524). A graduate may report securing a research role, but this says little about whether the role uses doctoral-level skills or how much of the job involves research, unlike the more standardised notion of a 'graduate job' (Hancock, 2021). Research and non-research roles are often discussed as binaries, whereas it is likely that functions exist on a spectrum of research intensity (Hancock, 2023).

What is a doctorate and what is it for?

Capturing the purpose or essence of a doctorate will always be a source of debate

Inouye *et al.*, 2026, p.16

Definitions of what a PhD is inevitably crossover into the intended purpose of doctoral study. QAA's 2024 descriptor for a doctoral degree (QAA, 2024, p.27) details that doctoral graduates will have "the qualities and transferrable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments." Inouye *et al.* summarise the complexity as "the fundamental challenge of defining 'doctorates', the diversity of doctoral programmes, including professional doctorates, and the range of ambitions and aspirations students and supervisors bring to the endeavour" (Inouye *et al.*, 2026, p.16). PhD graduates are viewed "by governments as a means to advance the knowledge economy and international competitiveness" (McAlpine *et al.*, 2020, p.1011). In contrast UKCGE's "Supporting Excellent Supervisory Practice across UKRI Doctoral Training Investments" 2022 report, found supervisors disagreed about what the aim of doctoral training should be (UKCGE, 2022, p.10). Some felt it was to produce 'independent researchers', others that the aim is to inculcate 'research leadership'. While

some argued that 'independence' does not capture the collaborative nature of research, other respondents favoured the term, as it captured the necessary autonomy and agency of the PhD student. "One participant pointed out that the goal of doctoral education was, in part, determined by the doctoral researcher themselves; with those who are not intending to pursue an academic career perhaps less in need of developing 'independence' " (UKCGE, 2022, pp.12–13).

Ambiguity and PGR recruitment

Inouye *et al.*'s study into doctoral admissions highlights that unspoken assumptions or presumed shared understandings of the purpose of the doctorate, impact all those involved at the point of PGR recruitment (Inouye *et al.*, 2026). They found that perceptions of the purpose of the doctorate differed by discipline, either viewed as knowledge production (HSS), or skills formation and a license to do research (STEMM). They note this is an over-simplification, but it draws attention to the implicit assumptions about the purpose of the doctorate, which may be discipline or institutionally specific. These assumptions are rarely discussed and often taken for granted within disciplinary norms, especially at the point of admission.

Influences on career aspirations, assumptions and development

The majority of PGRs aspire to an academic career

Authors have noted that, “In the UK, we possess very little evidence at scale about the motivations, aspirations, frustrations, and health and wellbeing of the PhD population” (Hancock *et al.*, 2019, p.15). However, available data suggests that the majority of PGRs ultimately aspire to an academic career (Advance HE, 2020; Hancock, 2021). This is true not just for UK PGRs, but internationally, despite the diminishing likelihood of securing an academic role (Hancock, 2021; Nordling, 2025b). PGR preference for an academic career appears to persist to the extent that they may be resistant to considering working in other sectors, even if the financial remuneration is likely to be greater (Muurlink *et al.*, 2024).

The 2020 Postgraduate Research Experience Survey report, published by Advance HE, included information on PGRs motivations for embarking on their studies, as well as their hoped-for future career (Advance HE, 2020). Comparison of data between 2018, 2019 and 2020 shows that PGRs motivations have remained largely consistent. The most common motivation for undertaking a

PhD was interest in the subject (35%), followed by improving their academic career prospects (27%). Only 8% reported being motivated by improving their career prospects outside of an academic or research career (Advance HE, 2020, p.14). The top three most common future plans among PGRs were found to be;

- Academic career in higher education (38%)
- Not sure or not decided yet (16%)
- Research career outside of higher education (14%)

The aspiration for an academic career within higher education was by far the most selected career option (Advance HE, 2020, p.16). The PRES 2015 report suggests that those embarking on a PhD because of funding availability have the greatest diversity of potential career paths post-graduation (Advance HE, 2015). Those students who started with an academic or non-academic career plan generally pursue their original career path. PRES subsequently modified their survey questions and thus no longer appear to cover career motivations (see PRES 2024 (Advance HE, 2024) versus PRES 2025 (Advance HE and Neves, 2025)). As a result, there is currently no national survey collecting data regarding PGR career motivation or aspirations within the UK. The GO survey does not collect information regarding PGR career motivations, and Hancock and Wakeling warn against collecting such data retrospectively, due to recall bias (Hancock and Wakeling, 2025). Accordingly, reports based

on GO survey data, such as Vitae’s What do researchers do next? reports, cannot include this within their analysis (Mellors-Bourne *et al.*, 2026).

Looking beyond just the UK, Nature’s 2025 survey of PhD candidates Money, politics and tech redefine PhD life in 2025 (Nordling, 2025b) found that 52% wish ultimately to work in academia, whilst 24% want to work in industry. Furthermore, the paper notes that “No matter where they might be headed post-PhD, many respondents say that they lack career guidance – just 52% are satisfied with the career advice they have received and only 31% think that their graduate degrees are preparing them well for science jobs outside of academia” (Nordling, 2025b, p.250).

Such findings perhaps play into the broader lack of clarity PGRs express in relation to their future careers. Whilst the literature suggests that a majority of PGRs may desire an academic career, they don’t necessarily have a comprehensive idea of what this entails.

So much of academic work, is after all, invisible – occurring in closed offices, at home, on planes, in meeting rooms and conferences – that it is still possible for outsiders, and even students, to imagine lecturers spend their days writing, teaching and discoursing eruditely with their colleagues

Burford, 2018, p.494, quoting Barcan 2013

Indeed, as PGRs’ understanding of the realities of academic roles increases over time, the percentage aspiring to academic careers drops, offset by an increase in responses that indicate a preference for ‘any other professional career’ (Hancock, 2021). Again, the need for clear definitions and consistent career support is evident. Similarly, studies indicate that implying at recruitment that a doctoral qualification will lead to an academic career can cause some PGRs to feel mis-sold or even betrayed (Hancock, 2021; Spronken-Smith *et al.*, 2024a).

Perceptions of non-academic careers

Such reactions speak to broader perceptions of careers beyond academia, which despite most PGRs ultimately following this career pathway are often referred to as ‘alternative’, seen as lesser options or at worst viewed as a failure (CRAC *et al.*, 2024; Hancock, 2021; Hancock, 2023; Chen *et al.*, 2024). Spronken-Smith *et al.*’s report noted that some PhD graduates were surprised that they enjoyed work beyond academia, “implying that there (sic) were unaware of how satisfying and enjoyable these pathways could be” (Spronken-Smith *et al.*, 2024b, p.579). Muurlink *et al.*’s 2024 systematic literature review found that PhD candidates, doctoral graduates working in non-academic roles and employers differ in the perceived importance they place on a range of skills. They found

that PhD candidates perceive their technical knowledge and research skills as the most important, whereas industry employers and employees with doctorates deem teamwork and collaboration to be paramount. They suggest that “This may be because current PhD employability training programs may fail to explicitly articulate industry expectations, with the exception of industry-linked or funded programs” (Muurlink *et al.*, 2024, p.961).

Chen *et al.*’s 2024 review found discrepancies in the perceived value of the doctorate between different stakeholders, noting that “graduates themselves and industry employers seemed to be mainly concerned with human capital (e.g. skills attainment) and social capital (e.g. credibility and respect), whereas academics tended to view the value in moral terms” (Chen *et al.*, 2024, p.302). They reported that doctoral graduates tend to have positive career outcomes beyond academia (Chen *et al.*, 2024).

An analysis of 800+ verbal responses from doctorate holders regarding their perceptions of the non-academic labour market (Suomi *et al.*, 2020), revealed four reputational problems regarding employment in the non-academic labour market:

1. Oversupply: too many doctorate holders in Finland “may have a negative impact on employers’ assessments of doctorate holders” (Suomi *et al.*, 2020, p.403).

2. Over education: Doctorate holders felt employers, especially in the private sector, see them as inefficient or lacking practical skills. They perceived that master’s graduates are often preferred and that doctoral applicants must work harder to demonstrate their abilities, particularly if their experience is solely academic.

3. Consistency problem: Respondents gave mixed views on whether doctoral degrees are valued outside academia. Some felt they are not respected; others believed they are valued, but unevenly across employers, sectors, and countries.

4. Communication problem: Respondents noted out-dated prejudices against doctorate holders during recruitment. They suggested doctorate holders need to better communicate their competencies, such as project management, networking, writing, and working internationally, to increase employer awareness of their value.

The theme of employers not necessarily perceiving the value doctorate holders bring is echoed by Guccione and Bryan (Guccione and Bryan, 2023). They found that while PhD graduates generally felt their doctorate was personally meaningful and “worth doing”, whether it was perceived as “worth having” varied in line with employment. If their role valued their doctorate and offered commensurate pay, they viewed it as valuable; and vice versa (Guccione

and Bryan, 2023, pp. 93–94). The authors also found persistent employer misconceptions about hiring doctorate holders, which tended to be more positive when employers had previous experience of hiring staff with a PhD.

National differences in post-PhD career motivations and perceptions

However, not all nations equally share the view that non-academic careers are of lesser value or esteem compared to academic roles. Hancock (2023) reports that in Germany, Switzerland and Sweden, holding a research position post-PhD beyond academia is regarded as success (Hancock, 2023). In Italy “PhD holders found both high job satisfaction and a sizeable earnings premium for those occupying research roles outside academia” (Hancock, 2023, p.1526). In contrast, doctorate holders working in non-research positions are “less positively characterised” (Hancock, 2023, p.1526). Garcia-Morante, Tikkanen and Pyhalto’s 2025 paper reported generally positive occupational wellbeing among PhDs working beyond-academia in Spain; however, they found their expertise in non-academic jobs is often underutilised (Garcia-Morante *et al.*, 2025).

From the PGRs’ perspective, previous surveys have suggested that motivations to start a PhD vary depending on the students’ location (Home (UK), Other EU and Non-EU) (Advance HE, 2013). Results found

that Non-EU students were the most motivated to start a PhD in order to improve their academic/research career, followed by Other EU and lastly Home (UK) students (40.5%, 26.6%, 24.4% respectively).

Disciplinary and demographic factors impacting career aims

Disciplinary norms may influence the career aims and likely career outcomes PGRs perceive as typical or possible. PRES 2015 reported that those studying in SHAPE were more likely to wish to pursue an academic career than STEM and Health and Social Care students (Advance HE, 2015). STEM students were the most likely to wish to pursue a research career beyond academia compared to other disciplines. They found no difference in desired career between males and females.

McAlpine and Turner’s study of 26 UK based social science PhD researchers, found that individuals balanced aspirations for an academic career with their personal circumstances (McAlpine and Turner, 2012). Early-stage researchers often held a naïve, abstract view of academic work, but as they gained experience and insight into its realities, their expectations became more pragmatic. They articulated clearer conditions under which an academic role would be acceptable, such as location, salary, or impact, as their awareness of structural constraints grew.

Whilst disciplinary area may have an influence on career aspirations, experience and personal circumstances also come into play. Lane *et al.*'s study of PhD students' aspirations at an Australian University, reported career aims and confidence to be distinct aspects of career professional development that should be supported as such (Lane *et al.*, 2025). They found disciplinary and demographic factors had an impact on career aims, with younger PGRs and those in STEM fields tending more towards industry, and older PGRs and those in HASS fields tending more towards academic careers. They suggested that career "aspirations may be shaped more by personal goals or disciplinary norms than by PhD program experiences", but that PhD program experiences were associated with career confidence in being able to achieve their goals.

Individuals' beliefs impacting career aims

Studies of doctoral career aspirations highlight the diverse aims, expectations and values that students bring to the PhD – and indicate that career planning may not be entirely or rationally responsive to employment statistics.

Hancock, 2021, p.525

PGRs hold beliefs around their identity as research professionals and their future careers. Hancock and Walsh posit that doctoral professional identity needs to be more flexible than previously defined, to "be prepared for many possible future

selves; nomadic knowledge workers operating amidst global competition and financial austerity" (Hancock and Walsh, 2016, p.44). This aligns with Chen *et al.*'s suggestion that undergraduates, with "shorter histories in academia may adapt more quickly to workplace requirements" (Chen *et al.*, 2026, p.94), than PhDs who are more embedded in academic cultural norms.

In addition to professional identity, Hancock, Hughes and Walsh's study of STEM doctoral students classified four moral positions PGRs held in relation to their future career and the Knowledge Based Economy (KBE) (Hancock *et al.*, 2017). The scientific purists (15% of their sample) all desired to become academics and were "ardently opposed to the 'corruptive influence' of the KBE" (Hancock *et al.*, 2017, p.1250). They viewed those driven by making profit to not be members of the scientific community. Social idealists (10%) were motivated that scientific research could improve society. Most hoped to become academics but were willing to work with non-academic partners.

Pragmatists recognised the value of both academia and KBE. Weak pragmatists (20%) viewed academic careers as superior. Strong pragmatists (30%) were less attached to becoming academics, considering KBE careers to be of equal merit and prestige and actively explored a range of careers. Some PGRs were found to have become strong pragmatists after a negative experience within academia, such as

after a poor interaction with a supervisor or career advisor. Many pragmatists had experience of full-time work between their UG and PhD.

Finally, third order capitalists (25%), who held varied and considerable work experience prior to starting their doctorate, did not wish to become academics. They viewed the PhD as a credential to enhance their value to the KBE labour market. Hancock *et al.* state: "We suggest that each moral position is founded upon a limited critical evaluation of the KBE and is hindered by poor contextual understanding of the landscape of contemporary science and HE" (Hancock *et al.*, 2017, p.1254). Furthermore, "each moral position, articulated so confidently by its proponents, could quickly unravel should doctoral scientists be encouraged to re-consider such contextual misconceptions and become better informed about the plethora of postdoctoral career destinations" (Hancock *et al.*, 2017, p.1255).

Such findings have implications for the ways in which universities and research organisations design and deliver career development to their PGR communities, a question further nuanced by the positive perceptions many PGRs hold towards academia. Burford explores the basis of these positive perceptions, listing three 'fantasies' PGR students project onto academia: social mobility, job security and 'a place of retreat' away from more stressful forms of work (Burford, 2018, p.487).

Burford argues that it is these unconscious fantasies that shape doctoral aspirations, not just rational economic factors. "Students project onto the doctorate a 'cluster of promises' about what an academic future might be, they seem to project onto it social mobility, security, and a higher quality of life" (Burford, 2018, p.494). In interviews with PGRs, Burford found that family culture impacted aspiration, while an international PhD represented a route to accrue esteem and social capital. As a result, PGRs can find themselves in a situation where their imagined academic career is either impossible or not aligned to their ideal vision. In such a context, considering an alternative career can feel like a huge loss. As a result, Burford suggest that PGRs should be encouraged to depersonalise feelings of shame or inadequacy.



How perceptions of future careers impact engagement with career development

PGRs' experiences and perceptions can influence how they engage, or not, with career development. Exploring the impact imagined careers have on doctoral graduates, Fenkner and Gottschalk-Rayling compared interview data from a group of postdoctoral physicists and historians in Germany (Fenkner and Gottschalk-Rayling, 2025). They found that the imagined labour market beyond academia had a considerable impact on individual's career planning and action. They found physics and history postdocs respond to uncertain careers in academia differently. The physicists in this study felt that they had a choice to either remain in academia or to move to a career in another sector, as a vaguely defined safety net. They used this imagined future to postpone taking action. Historians on the other hand, did not have a "perceived safety net of jobs outside academia" making their career uncertainty within academia feel more pressing. The authors identified four coping mechanisms; decisionism ("I'm choosing to stay in academia right now but I could go elsewhere"), postponement ("I don't have specific plans and take things as they come"), survival ("keep trying and persevere") and a two-track strategy where historians, only, had parallel jobs or careers alongside their academic roles, proactively building their own safety net (Fenkner and Gottschalk-Rayling, 2025, pp.459–460).

Similar findings are captured in Yu and Shirahada's study of 12 international HSS doctoral graduates (Yu and Shirahada, 2025). The authors found that the graduates' professional identity and 'cruel optimism' had impacted their career development, noting that "participants' anxiety about the future is manifested as a lack of motivation" (Yu and Shirahada, 2025, p.7) to actively engage with seeking a future career.

Impact of supervisors' assumptions/perceptions on career development

PGR assumptions regarding career outcomes are not the only factor that impact engagement with career development. Inevitably, given their role within the PhD experience, the individual perspectives of supervisors can have a particular influence on PGRs, an element noted throughout the literature.

Supervisor influence, disciplinary culture, and institutional embeddedness exert a significant influence on PhD students' career preferences and the reported disinterest in non-academic opportunities.

Hancock, 2023, p.1525.

This is particularly noteworthy given the findings of UKCGE's 2021 research supervision survey (UKCGE, 2021). They found that only 3% of supervisors considered future career goals to be a priority during PGR candidate selection

(UKCGE, 2021, p.19). One respondent to the UKCGE survey summed up a perceived difference between the motivations of some PGRs and their desired preference as a supervisor;

Most students simply want a PhD as another degree and do not see it as a training exercise for a research-based career. It's just another degree to get a higher salary in the private sector. I'm fine with this attitude, but I would like to know beforehand so I can choose candidates that actually want to be researchers.

UKCGE, 2021, p.20.

This resonates with the persistent "implicit, sometimes explicit, presumption that an academic career is the most highly valued option" (CRAC *et al.*, 2024, p.6). The reticence of some academics to support PGR career development beyond academia maintains the predominant focus on the PhD qualification with "significantly less, or no, attention on the transition to the next stage of the researcher's career" (CRAC *et al.*, 2024, p.7). The same report notes that "one in five supervisors were not supportive of their student undertaking an internship, and at least one DTP Director did not see career learning as a part of doctoral training" (CRAC *et al.*, 2024, p.6). This is surprising given UKRI's explicit expectations that research organisations will support PGRs professional and career development.

UKRI's 2016 Statement of Expectations for Postgraduate Training states that

"Research organisations are expected to provide an environment where research students have the opportunity to widen their horizons as part of their training. Experiences outside the "home" Research Organisation, for example with other academic collaborators, in non-academic environments or overseas are encouraged where it fits with the individual and scope of the project" (UKRI, 2016, p.2). It also emphasises the responsibilities of the supervisor, stating "Supervisors should recognise doctoral study as a wider training opportunity and encourage and support students in developing their careers" (UKRI, 2016, p.2). In their updated 2024 statement of expectations for doctoral training, UKRI further clarified their expectation that supervisors will;

- **support students to engage in their own professional and career development**
 - **encourage students' curiosity about the full range of careers open to them and proactively direct them to helpful information**
 - **provide opportunities to develop transferrable skills as part of student research project**
- (UKRI, 2024b, p.6).

This position was compounded by unequal access to career development. Even within a single institution, disciplinary differences and the structured funding of programmes meant that more skill development support was available to those in STEM than SHAPE. The authors highlight the

need for researchers to be receptive to the offer, noting that career development activities “are still seen by some doctoral researchers and, more critically, still seen by some supervisors as distractions from their research” (CRAC *et al.*, 2024, p.5).

Many of the challenges highlighted in the CRAC/Vitae report (CRAC *et al.*, 2024) were echoed by Crosland *et al.*’s recent paper from the University of Huddersfield (Crosland *et al.*, 2025). The authors found that PGRs faced barriers of time pressure, caring responsibilities and lack of clarity about what was on offer. Supervisors did not always see themselves as being able to support career aspirations beyond academia. “You know I’m there to get them through it, to get them through the viva and passing the thing” (Crosland *et al.*, 2025, p.33). Furthermore, the accessibility of career development was also noted as a challenge for those with disabilities, (the report highlights ADHD specifically), and poor internet connections. However, in contrast, 80% of PGR respondents to PRES 2025 reported that their supervisor helps them to identify their development needs as a researcher (Advance HE and Neves, 2025). It is unclear if such responses also refer to the development needed for their post-PhD career.

Career advice and guidance

The literature makes clear that supervisors play a central role in shaping doctoral researchers’ career knowledge and confidence, including through the advice and guidance they are able or willing to provide. Spronken-Smith *et al.* highlight supervisors’ strong influence on PGRs’ awareness of career options, yet also report cases where supervisors dismissed professional development beyond the thesis or “reacted dismissively to students not wishing to pursue academia, leaving students feeling unsupported” (Spronken-Smith *et al.*, 2024a, p.286).

Understandably, supervisors generally feel more prepared to advise on academic careers than non-academic ones, and this uneven knowledge directly shapes PGR experiences. CRAC/Vitae’s report stated that some academics assume they “know what’s best”, despite not always recognising that most PhD graduates leave academia (CRAC *et al.*, 2024, p.5). Cornell shows that although many PGRs seek career support from supervisors, only a minority feel that advice is useful, with just 39% believing supervisors provide career guidance and only 13% accessing specialist careers consultants (Cornell, 2020). Nature’s 2025 global survey similarly found that only just over half (52%) of respondents were satisfied with career guidance, despite the increasing interdisciplinarity and precarity of research careers

(Nordling, 2025b, p.250). Research into international doctoral students’ experiences further indicates that supervisors often lack industrial experience and therefore cannot reliably support students seeking non-academic pathways (Wang *et al.*, 2025).

Similar tensions appear in studies of international doctoral students, who value supervisors who share their cultural or linguistic background, improving communication, empathy, and confidence, but still experience gaps in support for wider challenges such as networking, industrial connections, and career uncertainties (Wang *et al.*, 2025). These findings echo insights from PRES 2021 and 2022, where PGRs describe limited incentives for supervisors to encourage career development and ongoing pressure to prioritise research output over broader training (Advance HE and Neves, 2022; Advance HE, 2021).

83% of supervisors report confidence in signposting career support, however, over one-third do not see advising on non-academic careers as part of their role, and 45% do not regularly do so (UKCGE *et al.*, 2024, pp.11, 43). The limited number of supervisory teams that include members from outside higher education (19%) further restricts access to non-academic expertise (UKCGE *et al.*, 2024, p.85). These findings align with Everitt, who emphasises the importance of explicit discussions of supervisory roles and expectations (Everitt, 2025, pp.

727–728), and with Huet and Casanova’s observation that supervisory training varies widely across the sector despite its importance for student outcomes (Huet and Casanova, 2022).

Significant gender differences also shape the extent to which supervisors engage in career support. The UKCGE Research Supervision Survey (2024) shows that male supervisors are more likely than female supervisors to view offering career advice as part of their role: 92% versus 88% for academic careers and 70% versus 62% for non-academic careers (UKCGE *et al.*, 2024, p.50). Overall, this data suggests that female supervisors are more likely to provide any career guidance in general compared to males (UKCGE *et al.*, 2024, p.51) even though they are less likely to view it as part of their role.



Structural barriers affecting doctoral experiences and outcomes

The literature demonstrates how intertwined structural, cultural, economic and policy factors shape who can access doctoral study, who thrives within it, and who benefits from the career opportunities it provides post completion.

Structural barriers rooted in systemic racism, social inequity and institutional stratification shape access to and progression through doctoral education. Mitic *et al.* describe how structural racism requires students of colour to work harder to succeed, and how first-generation scholars, particularly those from minoritised ethnic backgrounds, rely on the PhD for social mobility (Mitic *et al.*, 2025). Persistent inequalities in doctoral access and outcomes by ethnicity are highlighted by Hancock, Wakeling and Chubb, who document lower progression rates to PhD study among Black African, Black Caribbean, Indian, Pakistani and Bangladeshi graduates (Hancock *et al.*, 2019).

A second group of barriers concerns economic constraints, labour market conditions, and immigration policy. Wang *et al.* detail how UK immigration policies, and employers' reluctance to sponsor visas, restrict

international doctoral students' ability to secure work in the UK (Wang *et al.*, 2025). Cost-of-living pressures disproportionately affecting overseas and minority ethnic postgraduate researchers are identified in PRES 2024 (Advance HE, 2024), while the lack of childcare grants for postgraduate students (GW4, 2025) creates a structural disadvantage for women and low-income groups.

A further set of barriers arises from institutional culture, academic norms and the distribution of opportunity. UCL's 2020 report describes systemic issues such as the lack of role models for BAME students and women in STEM, limited career guidance, and an academic culture that still frames the PhD as an academic apprenticeship despite most graduates working outside academia (Lindner, 2020). Employers' uncertainty about the value of PhD training (Hancock, 2023; Couston and Pignatelli, 2018) restricts non-academic employment opportunities, especially for those without existing networks. Prestige hierarchies further impact inequality. Morgan *et al.* (Morgan *et al.*, 2022) show that academics are up to 25 times more likely to have a parent with a PhD, while Jepson and Hatemi reveal that a small group of elite departments in the US produce the majority of tenure-track faculty, reinforcing historical stratifications (Jepson and Hatemi, 2025).

Structural barriers also stem from geographical, cultural and mobility-related factors. McAlpine *et al.* show how location, mobility, and local job markets shape doctoral career trajectories, with external disruptions, such as shifts in political priorities or pandemics, creating additional uncertainty (McAlpine *et al.*, 2021). Cultural norms affect job-seeking behaviours (McAlpine *et al.*, 2021), and international students face further barriers while adjusting to language, academic culture and disciplinary expectations (Wang *et al.*, 2025). Wang *et al.*'s longitudinal analysis further demonstrates that international doctoral students' employability needs shift over time: the first year centres on building human and cultural capital; the second on developing social capital within and beyond the university; the third on sustaining psychological capital amid "tremendous research, personal, and professional challenges and hurdles including personal burnout, imposter syndrome, uncertainty of career prospects, work-life balance, and the pressure of seeking publications" (Wang *et al.*, 2025, pp.2337–2338); and the final year on consolidating identity capital as students position themselves for target labour markets. As one participant noted: "I think a big piece of being employable at this stage is to understand how to translate what you've done into a broad context or to identify what is your potential contribution to the companies [or] to the universities" (Wang *et al.*, 2025, p.2339).

Limited researcher mobility in the UK compounds these challenges: NCUB reports (NCUB, 2025; NCUB *et al.*, 2023) highlight weak flows between academia and industry and an imbalance in funding schemes that favour movement out of academia rather than into it.

Finally, gaps in data, policy alignment and support infrastructure present further structural obstacles. The lack of socio-economic monitoring of doctoral applicants, noted by Hancock, Wakeling and Chubb, restricts the ability to address inequalities systematically (Hancock *et al.*, 2019). Policy frameworks intended to support research careers often overlook postgraduate researchers entirely, as illustrated by the exclusion of PGT and PGR students from childcare support (GW4, 2025). Research culture and wellbeing pressures, including worsening mental health (Woolston, 2019), declining availability of teaching opportunities (Advance HE, 2024), and a weaker sense of community among part-time PGRs (Advance HE, 2023a), also hinder career development and persistence. Further evidence from Block (Block, 2023) highlights substantial differences between full-time and part-time doctoral experiences and points to a sector-wide lack of data on non-completion, particularly for part-time researchers, who reported never being offered exit interviews. Block argues that part-time PGRs, the majority of whom are women, are often expected to adapt to institutional systems not

designed for them, reflecting a broader structural failure to understand and support this group.

The intersection of structural barriers outlined above, presents key challenges for the provision of affective, inclusive career development. It is critical that mechanisms supporting PGR career development do not perpetuate these issues while seeking to enhance doctoral students future career success. This issue is further complicated by the lack of clear data on what such success looks like for doctoral students.

What is known about PGR career outcomes in the UK

Indeed, in contrast to data on undergraduate career outcomes, information on the career outcomes of PhD graduates in the UK is sparse (Hancock *et al.*, 2019; Hancock and Wakeling, 2025; Hancock, 2023). Researchers have commented that this speaks to a broader issue on the availability of data across the PhD journey, noting that “the doctoral data landscape is a mess” (Hancock *et al.*, 2019, p.6).

Those data that are available indicate that PhD graduates earn a graduate premium. Read *et al.*'s report found a graduate premium increase in earnings of £5500 per year over taught Masters' degree graduates (Read *et al.*, 2024). This premium was greater for women than men, when controlling for other characteristics, with the probability of

earning over £30,000 increasing by 9% for women and 5% for men. Having a PhD was found to slightly negatively impact the probability of having very high earnings for both men and women; having a PhD reduced the probability of earning over £50,000 per year by 7% for women and 14% for men. The authors suggested this may be due in part to PhD graduates narrow focus on specialist research skills rather than the skills to support progression into senior leadership roles.

Hancock (2023) showed the majority of PhD graduates (70.1%) enter non-academic employment, with the majority of these employed in research (53.8%) (Hancock, 2023, p.1529). Those with PhDs have high career satisfaction both in academic (91.8%) and non-academic (92.8%) settings. In non-academic employment those in research roles report higher satisfaction, 95.7% versus 89.3% for non-research roles (Hancock, 2023, p.1532).

However, within this, “PhD employment trajectories in the UK emerge as highly differentiated by doctoral institution and subject” (Hancock, 2023, p.1534). Vitae's 2026 ‘What do researchers do?’ report based on the GO surveys of 2022/23 doctoral graduates, found 41% were working in higher education, but 93% of those in HE research roles were on fixed-term contracts (Mellors-Bourne *et al.*, 2026, p.5). Higher proportions of STEM PhD graduates were in full-time work compared to SHAPE. They reported salaries which varied

widely by discipline, with the highest median earnings found for biomedical sciences and social sciences doctoral graduates, and lowest (£38,000) for arts and humanities (Mellors-Bourne *et al.*, 2026, p.13). 57% of all doctoral graduates reported that the doctorate was required for their job, with only 14% saying it was not required or advantageous in securing their current role (Mellors-Bourne *et al.*, 2026, p.17).

In addition to disciplinary background, other factors have been reported as having an impact on the career outcomes of doctoral graduates. Hancock reported Russell Group PhD graduates had a higher rate of research employment in non-academic sectors (56.6%) than those from all other institution types (47.7%) (Hancock, 2023, p.1532). Furthermore, “male PhD graduates report a significantly higher rate of research employment than females. White British PhDs report a similar rate of research employment to Asian graduates, but higher than Black and Other ethnic groups. These differences are not, however, statistically significant. PhD graduates aged under 30 and those from a family address in an area of average or above higher education participation, also report higher rates of research employment – but these differences are not statistically significant.” (Hancock, 2023, p.1532).

Hancock asserts that these findings suggest that the UK has a science-based economy rather than a

knowledge-based economy, in which certain PhD holders are privileged over others (Hancock, 2023). The perception that the research training that SHAPE PhD graduates receive is less applicable to non-academic employment is emphasised by how poorly current data collection methods capture their wider economic value. The implication is that this drives a self-fulfilling cycle, where SHAPE PhD graduates feel less valued and thus do not pursue research roles beyond academia.

Advice and guidance on career outcomes

As with data on career outcomes, data regarding the likelihood of completing a PhD is similarly difficult to locate, and a lack of understanding regarding the PhD journey seems commonplace. This is highlighted by a supervisor from UKCGE's 2021 report, who notes that many PhD students do not have a sense of what a PhD requires when they commence their studies and as such “a lot of people start out on PhDs and do not finish because they don't actually know what a PhD is.” (UKCGE, 2021, p.20).

This is compounded by a lack of comprehensive data regarding the variety of career paths PhD holders follow, which in turn limits the ability of doctoral students to make informed decisions about their own futures (Hancock, 2019). As Hancock notes, “PhD candidates will also benefit from

supervisors, mentors and careers services who are better informed and can enhance the advice and guidance they offer as a result". The currency of such advice is key, ensuring that those giving careers advice are not doing so "from a recent past that no longer exists" (Grey, 2025).

The absence of up-to-date information and guidance on career outcomes can lead to individuals remaining in HEIs until the "distress" of academia becomes too high" (Fenkner and Gottschalk-Rayling, 2025, p.461), rather than positively choosing an alternative career pathway beyond academia.

Personal factors influencing doctoral career outcomes

In addition to institutional or disciplinary factors, personal factors were identified that determined PhD graduates' reason for undertaking their current role (Hancock, 2023). The four most selected justifications in order of popularity were: career fit > earn living > broaden skills or experience > best or only offer. Little difference was found between the ordering of the selected reason between research and non-research employees.

Research employees view their role as more tightly aligned with longer-term career aspirations, providing higher agreement for 'career fit' and 'career progression'. The responses of non-research employees may indicate that current circumstances are less part of a well-defined plan; approximately

one-third made sense of their role in terms of seeing they enjoyed it, or for pragmatic reasons such as repaying debt and 'other'.

Hancock, 2023, p.1531.

Funded doctoral training provision

As highlighted earlier, career development opportunities available to PGR students can differ even within a single institution, dependent on the way their studies are funded. Whilst this represents a barrier for some students, the benefits to those eligible are noteworthy, with several examples outlined below.

The Vitae 2022 report Doctoral training in the arts and humanities: Engagement, review and future options highlights that the AHRC cohort-based doctoral training model provides a wider and more varied range of developmental opportunities than those typically available to unfunded PGRs (Mellors-Bourne *et al.*, 2022). The report notes anticipated growth in practice-based and professional doctorates, aligned with shifts in the labour market and the increasing movement of researchers between academic and non-academic sectors. AHRC-funded students were found to take up more training overall, benefiting from both programme-level and institutional provision. The report suggests that introducing formal recognition of developmental achievements could strengthen the

value of this training. However, several issues remain: many PGRs still feel reliant on supervisor approval to engage in CPD. Furthermore, training needs differ significantly depending on students' prior experience, meaning not all benefit from opportunities such as placements. In addition, part-time researchers or those with external responsibilities often face barriers to participation. Despite these challenges, the sense of community and peer support created through cohort structures is seen as a key strength.

UKRI research councils have increased their support for cohort based doctoral student training over the past three decades. EPSRC, the UK's largest single funder of doctoral students (Grove, 2024), introduced the Engineering Doctorate Scheme in 1992 across five centres (then operating as SERC) (EPSRC, 2007). The scheme was reviewed in 1997 adding five more centres with further centres added in both 2001 and 2006 (EPSRC, 2007), launching the first CDTs in 2002 (EPSRC, 2014). This structured model of doctoral training was revolutionary at the time (Taylor and Humphrey, 2021). A major review was undertaken in 2011 and expanded the number of CDTs to 115 (Taylor and Humphrey, 2021). In 2013 EPSRC replaced all previous centre names with the single umbrella term of CDT (EPSRC, 2021). The other research councils followed EPSRC's lead and created their own CDTs, such that in 2020 there were a total of 108 CDTs (Taylor and Humphrey, 2021). As of 2026, EPSRC supports 65 CDTs across the UK (EPSRC, 2024).

In contrast to EPSRC, BBSRC tends to offer a Doctoral Training Partnership cohort model for PGRs in biotechnology and biological science. BBSRC's DTPs require funded PhD researchers to complete an external placement through the Professional Internships for PhD Students (PIPS) initiative. This requirement was introduced to help researchers build transferable skills, gain insight into workplace cultures beyond academia, and broaden their awareness of the range of career paths open to them (Jones and Warnock, 2015; Jonsas *et al.*, 2024). Similarly, an ESRC social science PhD internship programme as part of a DTP at a Russell Group university was found to have wide-ranging benefits (Stamati and Willmott, 2023). The internship programme enhanced students' subject-specific knowledge, supported the practical application of their skills, developed workplace competencies and increased their confidence in both their existing competencies and career choice decision making (Stamati and Willmott, 2023). Additionally, partners gained an insight into the benefits PhD students brought to their workplace. The positive outcomes of this programme challenge "the skills deficit concerns of employers and student fears about the negative impact of social science PhDs on career progression" (Stamati and Willmott, 2023, p.164) previously reported.

In November 2024 UKRI announced the creation of two new schemes to replace the schemes that currently support doctoral training, called doctoral landscape awards and doctoral focal

awards (UKRI, 2024a). They stated that the “skills the students will develop will prepare them for a diverse range of careers, both in research and innovation and across the public and private sectors. At least 25% of studentships will be delivered in collaboration with non-academic partners”.

For context, funding related access to career development is not unique to the UK. For example, in North America the Broadening Experiences in Scientific Training (BEST) program was launched in 2012/2014, awarding a total of 17, five-year grants to institutions to test different approaches to doctoral and postdoctoral career development, supported by the National Institutes of Health (NIH). This initiative was designed to enhance doctoral and postdoctoral career across a wide range of careers, and the approaches were subsequently published in 2020 (Lara *et al.*, 2020). BEST was considered to be broadly successful in improving the awareness of the breadth of potential career options, increased confidence in career decision making, and improved perceptions of institutional support for diverse careers in their audience of PGRs and postdocs (Scalo and Freauuff, 2020). Brandt *et al.*'s cross-institutional analysis of 10 NIH BEST-awarded institutions found the concern that PGRs' participation in career development would negatively impact efficiency and productivity were unfounded (Brandt *et al.*, 2021).

Recommendations from the literature

Across the literature, scholars argue that doctoral education must evolve to better support PGRs and respond to the changing research and innovation landscape. Studies call for moving beyond what might be perceived as the traditional academic-only apprenticeship model and embedding career development across the PhD lifecycle. They assert that postgraduate researchers should be supported to prepare for diverse pathways through training and development that is aligned with wider political, economic, social and ethical contexts. Repeated recommendations include stronger supervisor engagement, greater cross-sector exposure, improved labour-market information, support for wellbeing and professional identity formation, and reforms to doctoral structures and assessment practices. Collectively, recommendations within the literature seek to ensure that PhD graduates are equipped for varied and evolving careers. While such recommendations have significant implications, the authors do not always make clear where the responsibility for taking them forwards rests. Indeed, a lack of clarity concerning who can, and should, lead any aligned transformation in the PhD is perhaps one factor hindering positive change. The following sections draw out and summarise these emerging recommendations.

Shift the culture of doctoral education to value all career pathways

Across studies, a cultural shift is called for within HEIs to normalise diverse post-PhD career destinations. Spronken-Smith *et al.* (Spronken-Smith *et al.*, 2024b) highlight the need to avoid terms that privilege academic careers, a point echoed by Skakni *et al.*, Garcia-Morante *et al.* and Ta *et al.*, who argue that the academic apprenticeship mindset must be dismantled (Skakni *et al.*, 2026; Garcia-Morante *et al.*, 2025; Garcia-Morante *et al.*, 2024; Ta *et al.*, 2024). McAlpine (McAlpine *et al.*, 2020) and Hancock (Hancock, 2023) similarly emphasise institutional reform to recognise the full range of roles that PhD graduates pursue following graduation.

Embed career development throughout the doctorate

Multiple sources emphasise embedding structured career development across the PhD to enhance support for PGRs. Spronken-Smith *et al.* (Spronken-Smith *et al.*, 2024a) recommend early reflection and personal development plans, while McAlpine (McAlpine *et al.*, 2020) and CRAC/Vitae (CRAC *et al.*, 2024) highlight the need for accessible, tailored career support. Chen *et al.* (Chen *et al.*, 2024) and Mitic *et al.* (Mitic *et al.*, 2025) stress the importance of helping PGRs to understand labour-market expectations and skill

relevance, a call echoed by Hancock, Hughes and Walsh who emphasise awareness of the broader contexts shaping research work (Hancock *et al.*, 2017). Insights from Nature's 2025 PhD survey (Nordling, 2025a) further reinforce the importance of early clarity of purpose and proactive engagement, adding to the broader case for continuous, embedded career development across the doctorate.



Provide experiential and cross sector learning opportunities

Scholars agree that experiential learning is key for employability, while current data suggests that a minority of PGRs, around 33–37% in the UK, have had a placement or internship during their studentship (Mellors-Bourne *et al.*, 2026, p.18). Spronken-Smith *et al.* (Spronken-Smith *et al.*, 2024a) propose internships and outreach, and Skakni *et al.* call for exposure to varied organisational cultures (Skakni *et al.*, 2026). NCUB (NCUB, 2025; NCUB *et al.*, 2023) recommend placements and mobility schemes, while CRAC/Vitae emphasise work-related learning aligned to employer needs (CRAC *et al.*, 2024). Garcia-Morante *et al.* (Garcia-Morante *et al.*, 2025) show such experiences improve wellbeing, with Hancock (Hancock, 2023) and Hancock and Walsh (Hancock and Walsh, 2016) underscoring their value for smoother transitions between sectors.

In Jones and Warnock's assessment of PIPS as part of a White Rose DTP, (a strategic partnership between the Universities of Leeds, Sheffield and York), they offer several recommendations to improve this beneficial activity (Jones and Warnock, 2015). They recommend careful consideration of what the internship programme is trying to achieve, when during the PhD the internship should occur and that students should be encouraged to source their own internships. They offer some practical recommendations,

(around expectation management, resourcing, data management and legal agreement between partners) ending by calling for opportunities to be made available to as many PGRs as possible to avoid a two-tier system, paying particular attention to PGRs on visas.

Build networks and partnerships across sectors

In related recommendations, stronger academia-industry links are widely asserted as a key enhancement. Spronken-Smith *et al.* (Spronken-Smith *et al.*, 2024a) highlight networking and industry contact, supported by Skakni *et al.* (Skakni *et al.*, 2026) and NCUB (NCUB, 2025; NCUB *et al.*, 2023), who argue for systems that enable mobility and collaboration. CRAC/Vitae (CRAC *et al.*, 2024), Garcia-Morante *et al.* (Garcia-Morante *et al.*, 2025) and Chen *et al.* (Chen *et al.*, 2024) further stress that partnerships help clarify employer expectations and improve transition readiness.

Strengthen supervisor support and specialist career provision

Supervisors are repeatedly identified as central to PGR career development. CRAC/Vitae (CRAC *et al.*, 2024) call for supervisor training on diverse career routes and how to more effectively provide informed guidance. McAlpine (McAlpine *et al.*, 2020) highlights institutional responsibility for resourcing this support, while Mitic *et al.* (Mitic *et al.*, 2025) emphasise addressing

power dynamics. Spronken-Smith *et al.* (Spronken-Smith *et al.*, 2024a) recommend regular, proactive career conversations. Hancock and Walsh (Hancock and Walsh, 2016) add that supervisors should foster interdisciplinary and external engagement.

However, institutions must take the lead in ensuring effective support. HEPI (Cornell, 2020) shows that PGRs often rely on supervisors or their own research for career guidance, despite limited confidence in the advice supervisors provide. This highlights the need for institutions to improve the visibility and accessibility of specialist research-focused careers consultants, which in turn reduces the likelihood of an additional burden being placed on supervisors. Rather, supervisors should be equipped to facilitate and signpost access to appropriate expertise and services. The impact of this is significant as “using careers services more than triples the likelihood of employment within 12 months of graduation” (McAlpine *et al.*, 2020, p.1034).

Improve labour-market information and data transparency

Studies repeatedly call for clearer information about post-PhD employment. McAlpine (McAlpine *et al.*, 2020) and CRAC/Vitae (CRAC *et al.*, 2024) emphasise better signposting to labour-market intelligence, while

Hancock (Hancock, 2023) and Hancock and Wakeling (Hancock and Wakeling, 2025) argue for richer longitudinal data on post-PhD careers. Chen *et al.* (Chen *et al.*, 2024) highlights communicating sector-specific skill expectations, and NCUB (NCUB, 2024) calls for clearer information on mobility schemes. Ta *et al.* (Ta *et al.*, 2024) note this transparency supports realistic and informed choices.

Support professional identity formation and personal agency

Identity formation is highlighted as essential for career readiness. Chen *et al.* (Chen *et al.*, 2024; Chen *et al.*, 2026) emphasise understanding workplace cultures, while Spronken-Smith *et al.* (Spronken-Smith *et al.*, 2024b) stress developing awareness of values and strengths. Garcia-Morante *et al.* (Garcia-Morante *et al.*, 2025) show that aligning work with personal preferences improves wellbeing, and Ta *et al.* (Ta *et al.*, 2024) frame students as active agents in decision-making. Mitic *et al.* (Mitic *et al.*, 2025) also highlight the importance of belonging and recognition across sectors (Mitic *et al.*, 2025).

Reform the structure and purpose of the doctorate

At a macro level, several studies recommend reviewing PhD structures to align them with modern career

realities. McAlpine *et al.* (McAlpine *et al.*, 2020) call for institutional reform of doctoral programmes, while Hancock (Hancock, 2023) and Houston and Lunt (Houston and Lunt, 2024) question whether thesis-based and viva-based assessment sufficiently evaluates relevant skills needed by researchers. Hancock and Walsh (Hancock and Walsh, 2016) advocate for interdisciplinary spaces and external research experiences, and Garcia-Morante *et al.* (Garcia-Morante *et al.*, 2024) highlight linking doctoral training to societal needs and non-academic applications.

Emerging trends and effective practice in PGR career development

In addition to the recommendations drawn from the literature, the current study has investigated existing practice across the UK higher education – research ecosystem. 40 UK Higher Education Institutions (HEIs), representing all TRAC peer groups, and 15 non-university organisations, including university alliance groups, not-for-profit sector bodies and third-party providers, were reviewed. Publicly available information on the nature and provision of PGR career development within this sample was captured, including whether resources were open-access or available on a paid-for basis.

In line with findings from the literature (Jonsas *et al.*, 2024; Mellors-Bourne *et al.*, 2022; Skakni *et al.*, 2026; Stamati and Willmott, 2023), this review highlights that career development provision and resources for PGRs vary in availability, breadth and format. Such variation can be attributed to a range of factors, including but not limited to the size, mission, resources, research-intensity and PGR population within each HEI and organisation.

Examples of emerging trends and effective practice in PGR career development, in addition to opportunities for enhancement and barriers to engagement, can be identified across the sample. These are outlined in the sections below.

Emerging trends in career development provision

Here, trends are defined as aspects of PGR career development that emerge through the review of organisations considered in the current study. These trends represent approaches to development that align to the recommendations drawn from the literature. Case studies of key exemplars are provided to highlight effective practice.

Trend 1: Personalisation

There is evidence of the increasing use of Development Needs Analysis (DNA) tools for self-directed, career-related learning, with some resources available for open access, such as QMUL's DNA tool (Queen Mary University London, 2025), University of Birmingham DNA (University of Birmingham, 2025b), and UCL's skill evaluation tool (SET) (University College London, 2026). SET provides a structured approach to development for PGRs and supervisors, making use of Inkpath (a professional development planning platform) for enhanced organisation and tracking. While these examples include elements of self-directed learning and encourage career exploration, many DNA processes still focus on the development of PGRs' research-related skills. Of the 40 HEIs reviewed, 29 explicitly refer to the use of DNA or TNA tools throughout the PGR journey, with 24 of those making clear links to the Vitae RDF. 11 of the HEIs do not currently share information on how PGR development needs are established or tracked or mention the use of DNA processes.

Case study:

The University of Edinburgh's DNA form (University of Edinburgh, 2025)

This fully open-access development needs form is accompanied by a detailed handbook for PGRs to use while completing their DNA. The handbook includes activities which encourage reflection on skills, considering different career paths and advice on setting time-connected goals and building a support network. In addition, a handbook is provided for supervisors, to inform their support of PGRs that are completing the DNA.

The needs analysis is pitched as a starting point for PGRs in planning their engagement with the range of support services on offer for PGRs at Edinburgh and provides a comprehensive framework for pulling together elements of the PGR offer, including careers and employability, academic support services, language services, wellbeing services and PGR communities/peer support.

Trend 2: Career development embedded into wider PGR support

As noted within the literature (CRAC *et al.*, 2024; Skakni *et al.*, 2026; Fuhrmann *et al.*, 2020; McAlpine *et al.*, 2020), there is a growing recognition of the positive impact of comprehensive, joined up support for PGRs. HEIs are adopting integrated models that acknowledge how uncertainty around future career pathways can affect other elements of the doctoral journey. This shift is increasingly visible on institutional webpages that integrate support and resources for PGR career development, wellbeing, peer support, financial guidance and immigration advice.

Examples of this integration include the University of Birmingham's Doctoral School (University of Birmingham, 2025a), which works closely with their Careers Network to offer one-to-one career consultations, mentoring opportunities and other forms of tailored support for researchers. Elsewhere, the University of Warwick leads the NCRC-funded Building Wellbeing Literacy for PGRs project (University of Warwick, 2025), which developed the Wellbeing Portal in collaboration with PGRs and internal partners. Although currently an internal resource, the project team is exploring options to make the Portal open access for the benefit of the wider PGR community. While centred on wellbeing, the Portal includes in-depth sections on careers, values, finances, networks and relationships – illustrating the benefits of a holistic approach to PGR support.

Case study:

The Wellbeing Thesis (2019)

The Wellbeing Thesis (University of Exeter Doctoral College, 2019) is a collaborative project between Kings College London, the University of Derby and the Student Minds charity, funded by Research England and the Office for Students. It is an open-access, online resource which aims to 'provide information to improve the mental health of post-graduate research students.' The resources on this hub range from managing stress, overcoming adversity to 'planning for the world after'. Resources include articles, videos and downloadable templates to support self-directed career planning, such as a SWOT analysis of skills. These resources are linked to from some institutional PGR webpages, such as LSE's researcher development pages. As the project was delivered in 2020, some of the available resources are now less current than at the time of publication, but they are still freely available to all PGRs.

Trend 3: PGR development delivered through credit-bearing programmes

Reviewing available information across the 40 HEIs considered, suggests that at least 11 are introducing credit-bearing development programmes as a mechanism for foregrounding and recognising the importance of career development. For instance, the University of Hull provide a 60-credit programme for PGRs, which includes optional career development modules that enable PGRs to take ownership of their ongoing career development alongside the development of their research skills (University of Hull, 2025).

An international example of developing employability skills in parallel to research skills is provided by the Graduate Certificate in Researcher Development, Engagement and Impact (GCREDI), at the Western Sydney University (O'Connor *et al.*, 2023). The Certificate provides early, staged research training before shifting its emphasis toward professional preparation as candidates progress. This sequencing ensures that research capabilities are strengthened at the points when they are most essential for moving through doctoral milestones, while career-focused learning is delivered later, when students are closer to entering the workforce. GCREDI also enables candidates to customise their learning by choosing relevant subjects and work-integrated experiences, with successful completion formally recorded on their qualification.

Case study:

University of Strathclyde PGCert in Researcher Professional Development (2025) (University of Strathclyde, 2025)

A key component of the PGR offer at the University of Strathclyde is the Postgraduate Certificate in Researcher Professional Development (PG Cert RPD). This flexible, credit-bearing programme allows students to tailor their development activities to their needs, mapped to Vitae's RDF, and includes assessments to demonstrate learning outcomes. It aims to prepare researchers for successful careers both within and beyond academia by developing transferable skills, confidence, and promoting career exploration. Examples of accredited workshops that focus on the development of skills beyond research include enterprise and entrepreneurship-focused sessions, leadership and collaboration skills development and a workshop on 'Careers Beyond Research: Applying Your Skills Outside Academia'

Trend 4: Encouraging career fluidity

A trend towards an emphasis on employability beyond academia was noted during the review of current practice. Of the 55 university and non-university affiliated organisations we reviewed, 37 showed evidence of supporting skill development to prepare for employment beyond academia. That said, workshops and resources which showcase academic pathways or the development of skills needed for academic pathways, remained more visible.

Highlighting this trend are UKRI's 'Switching Sectors' campaign (UKRI, 2024c) and Vitae's renewed RDF (Vitae, 2025), which encourage a narrative that promotes career porosity and openness to options beyond academia. As noted in the literature, awareness of career options beyond academia and an understanding of the opportunities open to PGRs as a result of the skills and abilities gained during their doctoral studies, is a key element within career development and in PGRs ability to pursue alternative pathways to success (see Alves *et al.*, 2025; Hancock *et al.*, 2019; Stevenson *et al.*, 2021).

An example of this narrative embedded into practice is provided by the Pathfinder resources at the University of Glasgow (University of Glasgow, 2024). These aim to avoid 'the false divide of academic or non-academic careers' by encouraging broader career planning. Though the Pathfinder resources are for staff and students, rather than tailored to PGRs specifically, they include a series of open-access case studies showing researchers in a variety of careers.



Trend 5: Innovation in practice, led by DTP and CDTs

There are examples of Centres for Doctoral Training (CDTs) and Doctoral Training Partnerships (DTPs) across the UK offering structured, supportive and employer-connected career development programmes that create opportunities for PGRs to use their research skills beyond academia. Examples include University of Surrey and Royal Holloway's Story Futures (funded by AHRC), which includes an embedded placement scheme to connect PGRs with creative-technology SMEs (Royal Holloway *et al.*, 2018–2023). This is intended to build skills pipelines and long-term links between universities and creative-industry employers, supporting PGRs pursuing non-academic careers in digital and creative sectors.

These collaborative initiatives bring together universities and industry partners with funding councils and align with regional growth sectors, as demonstrated in the case study below.

Case study:

The Northwest Doctoral Programme

The Northwest Doctoral Programme is a newly launched collaborative initiative between the Universities of Liverpool and Manchester, BBSRC and supported by industry partners (University of Manchester *et al.*, 2026). The programme provides a range of examples of effective development practices that encourage exploration of a future beyond academia, including: placements with industry partners, a version of *Prosper* tailored to a PhD cohort (led by University of Manchester) and access to BIOBRIDGE which provides a route for postgraduate researchers to pursue additional employability-related activities, e.g. work placements, consultancy, enterprise, project development, alongside their PhD research.

Opportunities and barriers

It is not possible to make firm assertions regarding PGR career development provision within each of the organisations considered, given the publicly available information. However, the review does suggest potential opportunities to further enhance PGR career development provision across the sector. These include:

Increased consistency of opportunity

Based on the review of available information, 25 of the 40 HEIs included within our sample indicate the provision of PGR-specific career related development activities. Information available from the remaining 15 organisations suggest that PGR career development is provided as part of a broader offer for early career researchers, or master's and undergraduate students.

This potential inconsistency between organisational approaches to PGR career development is reflected within institutions. As evidenced in the Story Futures and Northwest Doctoral Programme examples of effective practice, current models of funding and development may lead to variation in

the level of support on offer, given the challenge of aligning central career development provision with that offered to CDTs and DTPs cohorts. These findings suggest there is an opportunity to build on existing practice and proven models of support, to increase the consistency of provision across the diverse models of doctoral study that are reflected within the wider PGR community.

Clear ownership of PGR career development

The challenge of enabling consistent provision may be compounded by the availability of roles dedicated to supporting PGR career development and a potential lack of clarity regarding responsibility for associated activities and resources. Examples of HEIs with more tailored careers resources include the University of Cambridge's Career Progression model (University of Cambridge, 2025), the University of Liverpool's PGR Development Hub (University of Liverpool, 2025) and King's College London's Doctoral College resources (King's College London, 2025). Each of these HEIs have careers pages for research staff and students, which incorporate workshops and employer events that are tailored to the PGR audience. However, even within HEIs with more detailed provision, there is an opportunity to further foreground information about post PhD career options and transferable skill development.

Personal and professional barriers to engagement

In addition to the opportunities for enhancement identified above, common barriers to engagement with career development can be identified. These echo findings within the literature and link to experiences reported within the current study.

Indeed, despite a growing recognition of the importance of personal and professional development throughout the early research career pipeline, personal and professional barriers to accessing support persist. Dr Sophie Morris' report on engaged online learning environments (Sophie Morris and Edinburgh Napier University, 2025) presents common examples. While not solely focused on PGRs, Dr Morris' work highlights key barriers to accessing development that are experienced by researchers, including time pressures, geographic and accessibility challenges and individual personal circumstances.

Career development opportunities, including formal programmes, may often be delivered through workshops, seminars and cohort-based activities that assume physical presence, predictable schedules and available time. These delivery formats may unintentionally exclude those whose circumstances make regular attendance difficult, including researchers who are balancing their studies with employment, health conditions, caring responsibilities or long commutes.

Case study:

Barriers for parents, as evidenced by the GW4 Connect PGR Parent survey

The GW4 Connect PGR Parents survey (GW4, 2025), conducted by PGR parents themselves, explored the experiences of PGRs with parental responsibilities across GW4 universities. It found that PGR parents, and mothers in particular, face significant challenges to engaging with development opportunities and support. These include difficulties attending in-person events, lack of flexible or hybrid attendance options, and no provision for childcare during conferences or training. Financial pressures (connected with childcare costs) and time constraints were also cited as barriers to engagement. Parents surveyed stated that informal support networks such as peer groups and 'optional' activities, were harder to engage with due to the time constraints they face. However, these activities are shown to have a positive impact on wellbeing and belonging of those who can participate. In summary, the barriers noted negatively impact mental health, and career prospects, with women disproportionately affected. The report calls for systemic changes, including supervisor training, peer networks, and family-friendly policies to improve inclusivity and engagement.

Awareness of PGR career readiness

Data on how prepared PGRs are to explore future career options is scarce, limiting insights into how their career perceptions change through their studies, what support they require, and how best to prepare them for a diverse range of career pathways.

This contrasts with how career readiness is monitored at undergraduate level. The most significant example of data around career readiness for undergraduates is the Careers Registration Survey (Gilworth and Thambar, 2013), which was devised by the University of Leeds in 2012 by Dr Bob Gilworth. The Careers Registration Survey collated data from targeted questions to assess students' career readiness and engagement with employability enhancing activities. Through responses to survey questions, respondents were sorted into one of four categories – Decide, Plan, Compete (Apply), Sorted. This was the first at-scale effort to collect data around career thinking and readiness, as opposed to focusing on graduate outcomes or aspirations.

The questions were embedded into student enrolment questionnaires at the start of each year of study, providing important information to inform the provision of career development for specific cohorts of students. This work formed the basis of an Office for Students (OfS)-supported pilot from 2015 – 2018, through which an anonymised data set of 308,000 students was created. Data showed consistent patterns across 15 HEIs, supporting effective approaches to enhancing undergraduate career readiness at specific points in their studies.

To date, no similar UK-wide effort has been undertaken to explore career readiness for PGR students at scale, though the University of Huddersfield's PG Career Pathways initiative (Crosland *et al.*, 2025) includes a diagnostic survey, as explored in the case study below.

Case study:

The University of Huddersfield's PG Career Pathways (Crosland *et al.*, 2025)

The University of Huddersfield have developed PG Career Pathways, which comprises of a diagnostic survey and self-guided career resources specific to PGRs. The tool is based on the Careers Registration premise that effective career development should meet 'students where they are'. The diagnostic survey questions were designed for inclusion at Progression Monitoring Point 2. Based on responses, the students were then sorted into one of five career categories specific to the University of Huddersfield ('The Huddersfield model') and self-help guides aligned to each category created for use by PGRs. Since September 2024, PG Career Pathways was introduced as a mandatory task at Progression Monitoring Point 2 and used as a starting point for career development conversations and sessions for PGRs.



Accessing commercially available career development

A number of commercially available career development platforms and tools exist, which present opportunities for PGRs that go beyond those provided within institutions. However, not all of these commercial options are tailored specifically for PGRs, and the associated costs present a potential barrier to engagement for individual doctoral students.

That said, they may present options at the institutional level for those organisations seeking to enhance their provision. Examples of the modes of delivery and funding models used by commercial providers include:

Subsidised by HEI or CDT	Example: Your Entrepreneurs Scheme (YES) (Your Entrepreneurs Scheme (YES), 2025), a global competition run by University of Nottingham that provides hands-on experience in idea commercialisation and the development of transferable skills through a combination of face-to-face and online delivery.
Free for trial period	Example: The Universities of Glasgow, Edinburgh and Sheffield’s Career Management for Early Career Academic Researchers Future Learn course (online) (University of Glasgow <i>et al.</i>).
Has an institutional subscription option	Example: Dr.App offers a range of on-demand video resources to support all stages of PGR (Angel Productions). The Versatile PhD offers a range of online resources to support PGRs to excel in their professional careers (available in North America) (The Versatile PhD).
Paid for by individual PGRs	Example: Alma.me offers 1:1 coaching and job search support, access to a digital learning platform and job stability support when a role is secured (online) (Hoffer and Preist, 2024). CodeSwitch consultancy offers practical consultancy experience coupled with training and development for researchers (CodeSwitch Consultants).

Alongside the resources outlined above, Vitae offer the Researcher Development Framework (RDF) (Vitae, 2025). The RDF is available for use within the HE sector, with the associated RDF Planner tool available either through an institutional or individual subscription. The majority of HEIs reviewed (33 of 40) were found to align their career development for PGRs with Vitae’s RDF.

As noted previously in the discussion of barriers, the costs associated with career development activities can present inequities in PGRs’ ability to access opportunities. Where resource is available, examples such as those above may offer a practical solution for HEIs wishing to improve or enhance their PGR career development offer.

Skills frameworks and resources

One subset of activity focuses on career development in the form of skills frameworks and resources, designed to support those aspiring to work in identified sectors as they increase their knowledge, skills and expertise. A sample of such frameworks, relevant to the PGR community, are presented below:

Vitae RDF (see previous page)
Advance HE’s UK Professional Standards Framework (UKPSF) (Advance HE, 2011) and Professional Standards Framework for teaching and supporting learning in higher education, (Advance HE, 2023b)
C-DICE’s Research and innovation skills for net zero framework (C-DICE, 2025)
Eurodoc’s transferrable skills for early-career researchers (Weber <i>et al.</i> , 2018)
The European competence framework for researchers (ResearchComp) (European Commission Directorate-General for Research and Innovation, 2025)
NESTA’s UK skills taxonomy (Djumalieva <i>et al.</i> , 2018)
The European Commission’s Entrepreneurship Competence Framework, EntreComp (Bacigalupo M <i>et al.</i> , 2016)
High Impact Research and Employability Skills framework for PhDs (Hires-PhD), a transversal skills framework for PhD employability (Roy <i>et al.</i> , 2025)
OECD skills for jobs database, filterable by country (OECD, 2022)
DocPro is an online tool that allows PGRs and PhD holders to view and develop their skills (Association Bernard Gregory (ABG) <i>et al.</i> , 2015)
InterSECT job simulator for PhD level individuals to explore future career options (InterSECT, 2017)

Open access career development

In addition to the commercially available development platforms and skills frameworks outlined, there are examples of comprehensive career development resources that are open to all UK PGRs. The most comprehensive examples are hosted by the University of Exeter and EURAXESS, now in partnership with Vitae.

Case study:

The University of Exeter’s Doctoral College

Exeter (University of Exeter Doctoral College, 2024b) has a website open to PGRs from all HEIs, which has resources organised into five strands – essentials, careers, data, sharing your research and writing.

The careers strand includes career planning tools, such as activities to identify current expertise and gaps using the RDF; worksheets for mapping skills and planning development goals and guidance on setting long-term career objectives beyond research roles.

A stand-out section is the career management cycle, which offers a structure for PGRs as they navigate their studies and plan for the future (University of Exeter Doctoral College, 2024a). It is made up of five steps, all of which emphasise the importance of continuous development and self-reflection:

- Who am I? – reflecting on your values, skills and attributes
- Researching opportunities – looking at the wide range of career opportunities available to PGRs
- Making relevant choices – how to develop the knowledge, skills and experiences to follow your chosen career path
- Preparing applications – for roles in and beyond academia, as well as applying for postdoctoral funding
- What next – how to manage and future-proof your career

The resources are fully open and the website signposts PGRs at Exeter to additional opportunities, such as events and internal student support functions.

Case study 2:

EURAXESS

An example of a comprehensive offer from outside of the UK is EURAXESS Researchers in motion (EURAXESS, 2025), which offers postgraduate researchers a range of career development resources focused on planning and mobility. The “No Limits” toolkit supports researchers to evaluate skills, values, and interests to create tailored career plans. Training, webinars, and networking opportunities are offered to build transferable skills, and a unique job platform is supported via which PGRs can explore international careers. The REBECA scheme (Researchers Beyond Academia) supports transitions to non-academic roles through mentoring, practical simulations of industry tasks, and digital resources on entrepreneurship, research management, and knowledge transfer (EURAXESS, 2024). Together, these tools enable PGRs to broaden their career horizons and prepare for diverse professional pathways.

An opportunity to strengthen PGR career development

Overall, the review of current practice suggests that the landscape of PGR development is somewhat fragmented and inconsistent, echoing findings within the literature. Provision varies between and within institutions, and there are opportunities for collaboration and knowledge sharing that are not currently being realised for the benefit of the wider PGR population. The clear examples of effective provision and expertise evident throughout the review, present an opportunity for the sector to strengthen alignment, improve equity of access, address barriers to engagement and build more sustainable and embedded models of career development.

To support this process, the current study has undertaken research into the experiences, perceptions and insights of PGRs across the UK and stakeholders whose roles shape and influence PGR career development. The following section outlines the research design and methodology used.



Research design and methodology

60 Methodological limitations

61 Strand one: foregrounding the PGR experience

67 Strand two: insights from stakeholders

The research design of the current study centred on two core strands of data collection, complemented by additional activities that aimed to augment the primary data. The two central strands of activity were scheduled in parallel. Strand one sought to foreground the voice of PGRs, providing qualitative data through an innovative 'Listening Room' methodology, which provided a space for 40 pairs of PGRs to have detailed conversations regarding their experiences and perceptions of both the PhD journey and career development. Strand two incorporated 35 long-form interviews with a selection of stakeholders from across the UK Higher Education and research ecosystem. Each of these strands and related complementary data collection is set out below.



Methodological limitations

The study ran from late November 2025 to late March 2026. As a result of the short window of opportunity to engage, some UK PGRs and stakeholders may not have been aware of the opportunity to participate in the study. All participants volunteered to take part, resulting in a self-selecting sample. As such, participants may be more engaged with career development than others who did not volunteer to participate or may have had experiences they wished to share.

Due to the sampling size and project aims, some experiences which may impact on PGR career development, including intersectionality, wellbeing and the experiences of PGR alumni, were deemed out of scope.

The relatively modest sample size limits the extent to which findings can be extrapolated to the wider population. However, efforts were made to mitigate this through the breadth of insights gathered and through comparison with the existing literature and current practice across the sector.

In addition, there are limitations to the level of information that could be gathered on PGR career development on offer at institutions and across the sector, as the resources often sit behind institutional logins and/or paywalls.

User engagement with Instagram polls imposed methodological constraints, limiting the poll to a maximum of three questions and necessitating concise question phrasing to maximise response rates. As a result of the broad framing required, any conclusions drawn from the data have been interpreted with appropriate caution.

The volume and richness of the data generated were substantial. While thorough analysis was conducted and key themes identified, the scope of the project meant that further granular analyses were not feasible within the available capacity.

Strand one: foregrounding the PGR experience

To gain a comprehensive snapshot of the current PGR experience of career development, a mixed-method approach was taken. Each element of the approach is outlined in brief below before being discussed in detail. Recruitment of PGRs into the study was done via an online expression of interest (EOI) form. Staff with some responsibility for PGR career development were directly contacted at selected HEIs across all TRAC groups and nations of the UK. These individuals cascaded the opportunity to participate through their institutional communication channels. 70 individuals were contacted, representing 67 institutions or organisations, between 17 November

2025 and 18 December 2025. In addition, UKRI communicated the opportunity to participate in their monthly newsletter on 21 January 2026.

This approach aimed to ensure the inclusion of a broad range of PGRs, reflecting the diversity of the population. Individuals who submitted an EOI were added to a database, which was used as the basis of sampling for the methods below.

PGR data collection methods

Sheffield Hallam University Listening Room Conversations

Research partners from Sheffield Hallam University's Listening Rooms (SHLR) team were engaged to conduct the central element of PGR data collection. The Listening Rooms methodology provides an innovative model that foregrounds the voice of PGRs within the research process. Listening Rooms facilitate conversations between pairs of participants, who respond to carefully designed prompts without the input or presence of an interviewer or project team member. The peer-to-peer conversation increases the likelihood of authentic responses, revealing insights and experiences that may otherwise remain hidden. 40 Listening Room conversations were established, incorporating the perspectives of 82 PGRs (2 of the 40 rooms included 3 PGRs, thereby increasing the overall number of participants).

Online anonymous survey for PGRs

All PGRs who responded to the open EOI were either selected to participate in the Listening Room conversations or invited to share their views via an online survey. A total of 73 responses were received.

Focus group with PGRs

To further explore themes arising from the SHLR conversations, a focus group was held with a group of highly engaged PGRs from the Postgraduate Researcher Development Group (PDG) at the University of Liverpool. The PDG is an association open to all PGRs across the University and run by its members. The PDG Committee members who participated in the focus group discussion represented a wide range of backgrounds, disciplines and perspectives, whilst sharing a strong commitment to PGR career development and support.

Social media

To augment the PGR data provided by the SHLR, survey and PDG focus group, the Instagram social media platform was employed as a means of seeking the views of postgraduate researchers. This reflected difficulties in achieving satisfactory PGR response rates through largescale surveys that have previously been noted (Hancock, 2021) and the resulting need to use a platform already popular with PGRs (Wong, 2024).



	"Career development? I wish I had the time to do that!" (Poll 1)	"I'll only look at jobs outside of a uni if I have to." (Poll 2)	"I will worry about my future career after my PhD." (Poll 3)
Agree	45	40	21
Disagree	4	4	14
Total number of responses	49	44	35

Table 1 Instagram polls and responses.

The participants and sampling approach

PGR sampling

Informed by a review of past research, the current study aimed to capture the career development experiences of PGRs:

- across the whole UK
- across all stages of study (early, mid and late)
- in cohorts and solo or independent PGRs
- across 'science' or STEM disciplines and 'non science' or SHAPE disciplines
- across a range of institution types (research intensive and not)
- working part-time and full-time
- remotely based or primarily somewhere other than their host higher education institution

HESA PGR student data and UKRI PGR data were reviewed to understand the distribution and characteristics of the PGR community (see [Appendix 1](#). PGR demographics -What is known about PGRs in the UK? and [Appendix 1.1](#) PGR characteristics). On the basis of these analyses, the following minimum selection criteria were established to ensure that the focused sample for the Listening Room conversations captured a wide range of PGR perspectives on career development. Given the intersectional nature of the cohort, multiple criteria could be met by a single individual.

- 5% of the sample from each nation of the UK (in terms of primary PGR location/HEI location)
- 25% of the sample non-white
- 25% of the sample studying their PGR part-time
- 25% of the sample working in STEM and 25% of the sample working in SHAPE disciplines

The work was guided by the expanded principles of Universal Design, with the intention that a 'product', in this case a set of recommendations, would be created that accommodated diverse experiences without requiring specialist adaptations (Saenen *et al.*, 2026). The selection of the sample was constructed to "embrace the spectrum of human diversity as a foundational element" (Saenen *et al.*, 2026, p.5). Rather than solely exploring the PGR career development experiences of the 'majority', for example white, full-time, STEM PGRs based in England and then creating recommendations, efforts were made to over-represent PGRs across a range of factors. Although representativeness is not claimed, it was hoped that a sampling strategy designed for breadth and deliberate overrepresentation would surface experiences that are not typically articulated. By collecting this range of views and experiences it was anticipated that career development recommendations could be formulated with positive benefits for the diverse PGR community.

Accordingly, whilst the majority of PGRs are based in England (83% England, 11% Scotland, 4% Wales, 2% Northern Ireland in 2023/2024 (HESA, 2023/2024a)), minimum 5% targets were set to purposely over-represent the other nations of the UK. 78% of PGRs are white (HESA, 2023/2024b), thus the sampling target was set to 25% to purposely over-represent non-white PGR students. 24% of PGRs study part-time (HESA, 2023/2024a), often this group includes PGRs who are mature students, those with disabilities, caring responsibilities and/or additional employment, thus a target of 25% was set. In terms of disciplines the proportion of PGRs studying in STEM subjects is greater than in SHAPE (HESA 2023/2024 postgraduate (research) 'science' 63% and 'non-science' 37% (HESA, 2023/2024c)), so a target of 25% was set to capture PGRs across STEM and SHAPE disciplines.

Data are not readily available for all aspects of PGR students experience. As such, in addition to the targets above, representation across the following dimensions was sought:

- those with caring responsibilities or additional employment,
- those based remotely,
- those not primarily based at a HEI,
- those that feel they are minoritised – in terms of gender in their discipline, disability, religion, age (mature student)
- PGR stage (early/mid/late)
- institution type (by TRAC group),
- cohort versus non-cohort,

The decision was taken to group gender in their discipline, disability, religion, and age together to minimise the potential risk of participants identifying themselves as belonging to one of these groups explicitly. For example, it is well established that PGR students tend to under-report disability status (Stiebahl *et al.*, 2025) and [Appendix 1](#). PGR demographics –What is known about PGRs in the UK?. The submitted PGR EOI forms were assessed to prioritise PGR experiences that gave the best breadth across these dimensions. See [Appendix 2](#). PGR EOI demographics for full details.

For the social media poll, the project team collaborated with the Careers Service at the University of Liverpool. The Careers Service hosted polls on their Instagram Stories directed towards the PGR audience. The polls were posted on 10 and 12 March 2026. Additional support was provided by the Library team at the University of Liverpool, who reposted the content to further promote the polls to the PGR community. Furthermore, Jessica Wileman, a PGR with a substantial Instagram following (@studieswjessica), agreed to repost the polls to her audience. In addition to the Instagram activity, PGRs were contacted via Handshake by the Careers Service on 10 March 2026, to encourage participation in the anonymous online survey.

Data collection

SHLR conversations

The EOI for PGRs to join SHLR conversations was open from 17

November 2025 to 13 February 2026. Using the Listening Rooms methodology, a question set exploring six key topics around PGRs' experience of career development was created. PGR participants were paired randomly, rather than in friendship pairs. In two instances three PGRs were grouped into a conversation where uneven numbers of participants occurred. PGRs were briefed and provided with the set of six questions to discuss over one hour (10 mins per question). The pairs met online in Microsoft Teams breakout rooms without a facilitator, allowing for free-flowing discussion. The discussions were recorded, anonymised and transcribed (without the use of AI), enabling any potential topics of concern to be flagged and addressed if necessary.

A total of 338 PGR EOI were received and 235 were selected to be invited to take part in a SHLR paired conversation. A total of 40 (82 PGRs) SHLR conversations were conducted. These conversations were held in two batches of 20, with each batch followed by a round-table analysis session. The first batch of conversations were all conducted in late 2025, with the second batch conducted in early 2026. Whilst no differences in participant advertising, recruitment or pre-SHLR conversation occurred, it was noted that the quality of some of the conversations in the second batch was lower than the first. All transcripts were provided by 11 March 2026 and were tagged with the following information to aid data analysis, whilst maintaining anonymity:

- Ethnicity
- Full or part-time
- STEM or SHAPE
- TRAC group
- Cohort or not

PGR focus group

The focus group was held online to remove barriers to engagement for those not regularly on campus. It was held online on 25 February 2026 for 60 minutes with 6 PDG committee participants. In line with the PGRs participating in SHLR conversations, participants received a £20 Amazon voucher in recognition of their time.

Analysis methods

PGR data – roundtable analysis (RTA) of SHLR conversations

The roundtable analysis method is part of the Listening Rooms methodology, embedding an appreciative inquiry approach and is designed to enable a variety of voices and perspectives on the data. Roundtable participants were personally invited based on their interest in or experience of PGR career development. The 20 anonymised transcripts in each analysis batch were assigned and distributed to the roundtable participants one week before the meeting. Each transcript was read by at least two people and each meeting lasted for 150 minutes. Roundtable 1 was held on 20 January 2026 with 10 participants and roundtable 2 was held on 4 March 2026 with 7 participants.

During each RTA participants discussed emerging themes and selected two main themes to focus on. For each theme, participants selected quotes from the transcripts which aligned to the theme, before a facilitated discussion, which generated a set of agreed summary statements focused on the findings from the discussions. The facilitator supported participants in sense-checking and adding nuance and depth to the understanding of each theme. All quotes and agreed summary statements were captured in a single document which was the co-created outcome of the RTA. This document was then shared with every RTA participant. For full details on the RTA methodology see Parkin and Heron, 2022.

The RTA provided the primary identification of themes arising from the SHLR transcripts. However, as the meetings were time limited, not all analysis could be undertaken, nor could all themes be uncovered. Members of the University of Liverpool (UoL) project team were involved in both RTA meetings and were therefore immersed in the data and associated discussions. To ensure that any additional themes not raised during the two RTAs were captured, SHLR transcripts that had not previously been read by any UoL team member were distributed and reviewed, using the RTA themes as the starting point for analysis and enabling additional themes to emerge. Recurrent terms were noted by the UoL team and NVivo software was used to quantify how commonly they occurred across transcripts.

Strand two: insights from stakeholders

Insights from a range of stakeholders with some level of influence upon PGRs' experience of career development were sought to provide alternative perspectives within the study. These stakeholders work in an array of research, development and support roles both within HEIs and across the wider research ecosystem and recruitment to the study reflected this diversity. This approach recognised that role titles may not reflect the informal impact that stakeholders can have on PGRs' experience of and attitude towards career development.

Stakeholder interviews

Shift Insight were commissioned to conduct 35 individual stakeholder interviews, on the basis of their established reputation for conducting interviews with comparable participants, as evidenced through their work supporting UKCGE on the Research Supervision Survey (UKCGE, 2021) and the Wellcome Trust on the 'What Researchers Think About the Culture They Work In' report (Wellcome, 2020).

The core research objectives were:

1. To explore which embedded and inclusive approaches to supporting PGR career development were already working
2. To understand how roles and responsibilities in this area are interpreted
3. To find gaps in support and alignment

Stakeholder sampling and recruitment

It should be noted that PGR supervisors were not explicitly included within the sampling criteria, as their perspectives have been well captured elsewhere (Clegg *et al.*, 2024; RSVP, 2023; UKCGE, 2021; UKCGE, 2022; UKCGE *et al.*, 2024). Rather, participants were sought who are less visible within the current system, yet represent the range of voices, past experiences, tangential roles and perspectives that PGRs draw upon in their interpretation and engagement with career development opportunities.

The complexity of the research system, informality and in/visibility of individuals in these stakeholder roles means that there is no data to benchmark the sampling against. No single job role, title, description or job family could be targeted, as stakeholders work both within and beyond HEIs. Accordingly, input was sought from 35 individuals across the UK, holding a range of role types, across SHAPE and STEM and employed in diverse organisational contexts.



Stakeholders could submit an EOI from 17 November 2025 until 23 February 2026 and participants were recruited from the Shift Insight panel, the University of Liverpool’s network and UKRI’s contacts. A total of 61 stakeholder EOIs were received, with 47 selected as the primary sample to be invited for interview with Shift Insight. Shift Insight conducted the agreed 35, 50-minute interviews online between 5 January to 25 February 2026, with a range of individuals in career enabling roles, such as postdocs, technicians, researcher developers, careers staff and project managers.

Shift Insight categorised stakeholder participants as indicated in table 2 below.

Audience	Explanation	Associated EOI question	Possible job roles
Design	Those involved in the creation of PGR career development policies or frameworks.	I have direct responsibility for PGR career development	Research developer, careers adviser, CDT lead, senior leadership
Deliver	Those involved in the direct delivery of programmes, frameworks, services etc.	I have direct responsibility; I regularly interact; I influence strategic decisions	As above, plus doctoral college leads, EDI champions, research support staff
Enable/advocate	As above, broadly all that enact the programmes, but also those that advocate for PGR career development and work in supporting with accessing skills or opportunities	I help connect PGRs with external sectors or opportunities	Industrial supervisors, enterprise leads, Knowledge Exchange (KE) staff
Informal	Everyone who interacts with PGRs in any way	I regularly interact with PGRs and help shape informal cultures; I work in a hybrid or informal role	All, but also postdocs, programme manager, technicians, wellbeing staff

Table 2 SI stakeholder categorisation

Data collection

The interviews were transcribed and tagged with the following details to aid data analysis whilst maintaining anonymity:

- Job title
- Primary disciplinary area of focus (STEM or SHAPE)
- University or institution they work at (TRAC group) or other organisation type
- Relationship/Role type with respect to the PGR career development
- Way in which they work with PGRs regarding career development – Informal, Enable, Advocate, Design, Deliver
- Nation of the UK

Shift Insight provided a report on the themes emerging from the interviews on 5 March 2026 and the 35 transcripts from each discussion were received in stages by the 25 March 2026. It should be noted that Shift Insight terminated one interview after being unable to verify the interviewee’s legitimacy, and this was therefore not counted towards the final 35 completed interviews. A review of the EOIs highlighted a small number (~10%, 6 of 61) with characteristics consistent with inauthentic or automated submissions.

Stakeholder interview analysis

Building on the report of emerging themes and issues provided by Shift Insight, a detailed thematic analysis of the 35 interview transcripts was conducted by the UoL project team. An agreed set of central themes, plus additional emerging themes, were used to further analyse responses, identifying key points in comparison to the PGR SHLR data, which was analysed in parallel. Data including key patterns, quotes and examples were synthesised from across the transcripts and aligned to the core codes drawn from the SHLR roundtable analysis. Further iterations of the thematic analysis were augmented by the PGR survey and focus group data.

The following discussion sections builds on the themes identified within the analysis and the insights provided by the desk-based reviews presented in earlier sections. Throughout, the reflections and experience of participants are foregrounded.



Discussion

72 Definitions of career development in practice

76 Career success

80 Attitudes towards career development

86 Engagement with career development

92 What gets in the way? Barriers to engagement with career development

114 Opportunities to enhance PGR career development

126 Auxiliary themes

Definitions of career development in practice

Data from both PGRs and stakeholders shows a broad range of interpretations regarding what constitutes career development for PGRs. This diversity of views can be attributed to factors including personal experience, motivations for starting a PhD, discipline and awareness of what is on offer. For example, participants who view the PhD solely as a springboard for a successful academic career appear more likely to understand career development as synonymous with researcher development.

“Career development is one of those terms I suppose where I can’t take for granted what someone means when they say it to me, I have to do some unpicking. Do they mean general professional development like the kind that I do, that obviously we hope is going to develop the career of the person we’re working with? Or do they mean that more specific definition”

Researcher Development Training
Officer, Design, SHAPE, B

One participant, a senior policy manager, sums this up, noting that discussions of skills are often undefined, vague and **“woolly”** with subcategories such as soft skills, green skills or digital skills also being very difficult to define (Senior Policy Manager, Deliver, STEM, N/A). Unclear definitions contribute to the lack of consensus regarding what constitutes career development for PGRs. This is further exacerbated by significant variations across the sector in who owns the responsibility for career development, what sort of activities should be included and how impact is evaluated. Indeed, the availability of data on the impact of career development activities is highlighted as a challenge, both in relation to the rigour of those data and the insights they provide to inform development activities, as noted by a researcher development lead **“I think we could have better data. And I think we could understand the needs of our PGRs better”**. (Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A)

This divergence in definitions and expectations shapes how both stakeholders and PGRs perceive the purpose and value of the career development available across the sector. Stakeholders within the study tended to articulate career development as a broad, holistic process, one that supports PGRs to understand and articulate their skills, explore a wide range of possible futures, and build networks. In contrast, PGRs frequently expressed an expectation for clear, actionable, practically oriented guidance. In this sense, responses highlight a potential dichotomy, with stakeholders asserting that PGRs benefit from an expansive, flexible **“portfolio”** of opportunities, whereas PGRs often expressed a desire for more structured, personalised and explicit support. This potential point of difference is explored in more detail in later sections on attitudes to career development and barriers to engagement.

Variation in practice

The variety of career development activities that stakeholders reported, (see table 3), illustrates the broad and multifaceted ways in which PGR career development is understood in practice. Mentoring, peer learning and community-based support emerged as areas of alignment between stakeholders and PGRs. Stakeholders saw one-to-one or small group work as essential for contextualised guidance, while PGRs consistently valued mentorship, both academic and non-

academic, for its emotional support, practical advice and role in demystifying career pathways.

“I feel that the mentorship programme is really important, and having a development programme is also very important, and I believe that speaking from (sic) experts and professionals in your major field is also very, very important.”

PGR, T40, R3

Peer communities were also reported as playing a key role in career development. Informal conversations in cohort settings, networking events or social spaces often served as unexpected sources of career insight, particularly where institutional provision was limited.

Across the stakeholder interviews and Listening Rooms, participants identified a shared need for career development that supports reflection, self-awareness and the articulation of skills. Stakeholders positioned this reflective practice as foundational.

“It’s really about supporting the individual to be able to reflect and identify and achieve their ambitions in whatever they would like to go on to do. That could be an academic career, but it also could be outside academia. It might not be a job, it might be volunteering. So it’s really enabling them to be able to go and do whatever they would like to do, for which you



need an awful lot of knowledge and to be able to reflect as part of that and develop your skills.”

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

Stakeholders emphasised holistic, flexible career development, that embedded career thinking from the outset, whilst acknowledging the persistent challenges of limited resources, disciplinary norms and diverse attitudes to career development.

“You don’t necessarily finish your PhD with the track of this is where I’m gonna go and this is how I’m gonna pursue it. I think it can work like that for some and good for them. But I think career development to me is more of like equipping people with the potential to see opportunities which are not necessarily just in a single track, but that they can acknowledge their skills, their perspectives, their networks”

Lecturer in Business Education, Informal, SHAPE, A

Summary of types of career development offered

Table 3 summarises the types of career development activity mentioned by PGRs and stakeholders during SHLR conversations and stakeholder interviews.

In summary, responses from both stakeholders and PGRs suggest that definitions and understanding of career development vary considerably. Contrasting perceptions and experiences may help to explain the continued ambiguity surrounding PGR career development, as both a concept and a practice; when definitions differ, provision varies, and expectations do not align. In this context, PGRs may inadvertently be left to make sense of career development largely on their own terms, drawing on individual initiative, informal networks and ad hoc opportunities to support their ongoing development.

Overarching Theme	Specific Activities
Core skills and professional competencies	- Transferable skills training (communication, teamwork, teaching) - Academic writing workshops - Grant writing and funding workshops - Publishing support - Writing retreats - Presentation skills - Methods and techniques training - Data analysis and data management - AI use sessions - Commercialisation and intellectual property
Self-reflection, values and professional identity	- Workshops/masterclasses on ambition, values, self-reflection - Narrative CV training - Support to articulate academic skills for non-academic contexts - Structured, personalised career plans
Career management skills and employability	- CV writing - LinkedIn and profile development - Interview preparation - Job searching support - Exposure to job options and labour market information - Department-based career sessions - Resources split into academic vs non-academic pathways - On-demand video resources - Short online workshops and webinars
Careers guidance, mentoring and coaching support	- One-to-one careers advice - Career coaching - Small group coaching - Drop-in career clinics - Peer-to-peer coaching - Peer learning groups - Supervisor support and signposting - Mentoring (formal/informal and internal/external) - ‘Professional guardians’ providing broader guidance and emotional support
Experiential learning and work-based opportunities	- Internships (short and long-term) - Placements (academic, industry, third sector) - Industry shadowing and work visits - Studentt/researcher consultancy programmes - Apprenticeships
Networks, alumni and employer engagement	- Alumni talks – both live and pre-recorded - Case studies and success stories - Networking with employers (including speed-dating formats) - Careers fairs - Careers conferences - Research careers days - ‘Careers beyond academia’ days
Structured programmes and themed initiatives	- Structured career development programmes - DTP/CDT structured programmes - Residential programmes - Themed weeks - PGR skills week
Community building and peer support	- Community building events - Initiatives to increase exposure to diverse role models and trajectories - Outreach or widening participation project (such as ‘That’s Me’ at BCU (Birmingham City University and University of Wolverhampton))
Digital and self-directed career resources	- Online platforms tailored to PGR careers (such as MyCareer)

Table 3 Range of career development activities reported in stakeholder interviews, grouped by overarching theme .

Career success

Defining success

A similarly complex picture emerges when considering how PGRs and stakeholders conceptualise career success. As with definitions of career development, these perspectives are shaped by differing assumptions, experiences and institutional cues, and have a strong influence on how and why PGRs access, or not, career development opportunities.

Stakeholders within the study tended to describe success as a reflective, values-driven process, grounded in self-awareness, clarity of purpose and the ability to make informed choices across a broad horizon of possibilities. For them, success was less about reaching a particular destination and more about enabling PGRs to understand themselves well enough to navigate diverse futures with confidence.

“Embedding activities that challenge their thinking... it’s that self-awareness piece first... if they don’t know what their skills, their values, and their interests actually are... it’s really difficult to know what they’re going to love.”

Careers Consultant (Researchers), Design, STEM, A

In contrast, PGRs offered more varied and, at times, conflicted, definitions of success. These definitions appeared to be shaped not only by institutional narratives, but by personal histories, emotional labour, caring responsibilities and shifting identities over the course of the doctorate. PGR participants stressed the evolving and context-dependent nature of success.

R2: “Success is very subjective (...) I don’t feel like I need all those accolades anymore. What matters to me honestly is (...) having a permanent contract (...) and then in terms of my future career, I hope that I can live a balanced and happy life(...)”

R1: “(...) I think that’s a very key factor(...) [if you can] find yourself in a place where you have that balance in your life, then that’s success, right?”

PGR, T13, R2&R1

For others, reflective awareness developed organically through the challenges of the PhD, rather than through formal provision. One PGR articulated how encountering limits in their research reframed their sense of contribution and purpose:

“People have been trying to do this for 20 plus years (...) that makes you question everything (...) how do I develop myself into a person having a career?”

PGR, T3, R2

Across the Listening Rooms, PGRs described success in terms that

departed from traditional academic metrics. They emphasised wellbeing and the ability to pursue meaningful work without sacrificing personal life “success for me is more to do with if I feel happy, if I’m balanced” (PGR, T10, R1). As part of the same Listening Room conversation, the participants noted that:

R1: “People don’t want to get locked in, in the same job for like 30 years, 40 years (...)”

R2: “No, work-life balance is super important. Like I would rather work maybe not in an amazing job that’s going to propel my career and make me a world famous academic in music or whatever, but if I could pay my bills, set me up for the future, and I could be with my family and do my hobbies (...) that’s more valuable to me”

PGR, T10, R1&2

These responses suggest an orientation towards sustainable and fulfilling futures, which it could be argued contrasts with institutional narratives that often continue to prioritise successful academic outputs as the marker of career success. That said, a significant proportion of PGRs retained a linear, academically centred view of success, particularly in the earlier stages of their studies. For them, progress on the thesis, publications and conference presentations were interpreted as the primary, or only, pathway to securing future opportunities. Success was defined explicitly in traditional academic terms, focused on

becoming an “independent, established researcher” (PGR, T16, R2);

“The more articles I write (...) the more reviews (...) I’m improving (...) which is going to help me succeed”

PGR, T16, R1

Yet often academic ambitions were intertwined or not in opposition to broader motivations, such as impact, policy influence and public good, “making a difference (...) helping the world to be a better place for when my children are older” (PGR, T16, R1). PGRs within the study articulated hybrid notions of success, combining impact, financial security, happiness, fulfilment, and personal values.

“Success will mean or look like meaningful impact (...) financial stability and security, and recognition of my expertise (...) alignment between my values and my professional roles.”

PGR, T34, R2

While such definitions echo stakeholders’ aspirations for broader, values-driven success, PGRs arrive at them through personal and often emotionally charged experiences, rather than through structured institutional support.

The role of networks in defining success

In addition, participants' understanding of success is shaped by their personal and professional networks. Opportunities such as jobs, collaborations and invitations often emerge through existing relationships or recommendations. Interdisciplinary networks are viewed as enhancing research impact and enabling students to work beyond the boundaries of their existing expertise. Similarly, cohort-based programmes establish professional networks that can persist post-graduation, forming a ready-made community of future colleagues. For those pursuing applied careers, external networks provide authenticity and industry insight, helping them position themselves credibly beyond academia. Collectively, these experiences position networks as both a lens through which PGRs interpret career structures and a practical tool that determines how opportunities unfold.

"I think that I thought when I got into academia with a PhD would be incredibly egalitarian. It's not, it's who you know."

PGR, T22, R2

Supervisors play a central role in shaping these perspectives. PGRs within the study describe supervisors as the primary source of networks, opportunities and career cues, giving supervisors significant influence over

which future career pathways feel legitimate or attainable. In parallel, stakeholders recognised this dynamic, noting that supervisors, having often followed traditional academic paths, may reinforce narrow notions of success, as the advice they provide **"is very much dictated by their own formative experience"** (Senior Lecturer in Music Industries, Design, Informal, Enable, Advocate, SHAPE, A).

"I would say for PGRs, is at the moment, they will be having to hunt quite hard to find support. Some of it will come through supervisors (...) most supervisors have possibly come through a relatively traditional route, don't necessarily have the broadest knowledge of careers."

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

Institutional culture reinforced these dynamics. Stakeholders noted that universities often signal academic careers as the default or most valued trajectory, despite knowing that only a minority of PGRs will secure academic posts. Several respondents called for a shift in mindset and a narrative that, albeit unconsciously, positions **"an academic career as the only one you would go into"**. The same respondent posed the challenge well;

"How do we shift everybody's mentality so it's not perceived as a failure (...) if it's not an academic career?"

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

Responses from PGRs within the study suggested a growing awareness that doctoral careers are increasingly non-linear. However, this awareness did not always translate into confidence or comfort with the realities this brings. In parallel, stakeholders noted that the growing need to explore alternatives did not always result in relevant or adequate support being made available to help PGRs navigate the resulting challenges.

"People are now realising that doing a PhD or postdoc doesn't always lead to an academic job (...) but we don't really have the support that is needed."

Scientist, Informal, Enable, Advocate, Design, STEM, N/A

Interpersonal relationships, peers, mentors and family members also shaped definitions of success. Stakeholders highlighted the value of cohort support;

"It's extremely important to make sure the confidence is built, but also that students can talk with one another about what's missing but also relying on each other where there are some gaps."

Professor and Head of Department, Informal, SHAPE, A

While recognising the value of such support mechanisms, PGRs also described how family pressures, peer comparison or feelings of not measuring up could narrow their vision or undermine their willingness to explore alternatives. Attitudes to personal responsibility for success varied widely, from those who assumed things would naturally **"fall into place"** to others who felt overwhelming pressure to succeed on their own terms. One PGR captured this sense of individual burden: **"It is all on me (...) my PhD journey has in some way prepared me for taking that onus."** (PGR, T25, R3)

Variations in how success is defined and understood mirror the inconsistency and ambiguity in perceptions of career development itself. While stakeholders seek to promote a holistic, reflective and inclusive vision, PGRs encounter multiple, and sometimes conflicting, narratives shaped by institutional culture, disciplinary norms, personal contexts and the emotional realities of doctoral study. In the absence of consistent messaging, clearer framing and visible role-modelling, PGRs assemble their own definitions of success from uneven cues, defaulting to academic norms even when their aspirations lie elsewhere.

Attitudes towards career development

Inconsistent definitions of career development and varying conceptions of success, shape equally varied perceptions of the importance and relevance of career development within the PhD journey. The following section explores these attitudinal differences as presented within the data.

PhD completion as the sole priority

PGR respondents indicate that engaging with career development is significantly less important than their primary focus on research. One respondent captured this, stating that they do not currently prioritise career development as the focus required by their doctoral research means that **“maybe I forget there is something after it”** (PGR, T29, R2). Data collected from the social media poll reinforces this perspective, with 60% of respondents agreeing with the statement ‘I will worry about my future career after my PhD’. In part, this may relate back to the lack of a clear distinction or definition of career development. Indeed, across the data, PGRs indicate that they view completing their PhD as their current career, or as a form of career development.

“I mean I would say I’m not consciously prioritising career development at the moment. I think I’m kind of letting myself not think about that for now and like maybe later this year or next year, like academic year, to pick that up. Because I think doing the PhD itself is a career development task for me.”

PGR, T26, R2

Perhaps understandably, responses suggest that advice from supervisors serves to support the perspective that finishing the PhD should be the primary focus.

“I think sometimes my supervisors are trying to get me to really focus on my PhD, which obviously is good advice, but I think sometimes they neglect a little bit the career development side of things because they think that you can kind of worry about that later on.”

PGR, T12, R1

Conversely, responses from stakeholders indicated that they view the failure to consider career development early on as an oversight that will ultimately disadvantage PGRs. Stakeholders who had worked with PGRs over many years provided insights into the consequences of delayed engagement and emphasised the need to prioritise career development within the PhD process.

“I think the challenge for them is seeing it as a priority for themselves as early as possible and not leaving it last minute and suddenly thinking in the last six months, “oh I need a job after this, now I’ll start planning and looking”.

Senior Researcher Developer (PGR),
Design, SHAPE, A

Indeed, responses suggest that, rather than viewing career development as unimportant, the challenge for PGRs may in fact be the prioritisation of career development activity in relation to successfully completing their PhD. Consequently, PGR respondents appear to have internalised a career trajectory marked by ongoing ambiguity about subsequent steps, contributing to their perception that their future is largely predetermined or externally constrained, as they lack the capacity to explore potential options.

A PhD is enough, extra career development is superfluous

As noted earlier, some PGRs within the study seem to suggest that the process of completing their PhD will provide all the experience they need to secure a subsequent role, framing additional career development as unnecessary. This view foregrounds the skills developed through research and, in some cases, teaching as the only ones needed to achieve career success. For others, the choice not to engage with career development opportunities comes from a belief that it is not for them and that post-PhD

success will ‘just happen’. This can result in an active decision not to engage with available sources of support.

“So I think that my university offers lots of help. There is a careers centre but it was a personal choice and I didn’t really need any help or support.”

PGR, T11, R1

Such views indicate an assumption that obtaining a PhD will be sufficient to ensure future employment. Indeed, some of the respondents described their research training as being inherently career-building.

“When someone asks me how do I currently prioritise career development in my PhD, the career development itself is within the PhD because my Plan A after the PhD is to implement the results of the PhD, so everything works hand in hand from where I stand.”

PGR, T5, R1

As touched on in the [Career success section](#), others highlighted the importance of realising the broader purpose of their doctoral work:

“It’s the moment that you realise that your work isn’t about passing exams, but about having purpose. Like that’s the underlying factor here that we don’t get paid in a lot of money but instead we get paid in direction, almost. Like what you get given from this is the opportunity to contribute in a way that you can then take something from at an interpersonal level.”

PGR, T13, R1

Whilst examples above suggest a relatively passive attitude towards career planning and development, another group of respondents indicate an inherent drive to manage this process for themselves. One respondent felt they had control over their future career to an extent, noting **“there are lots of opportunities available to me, and it is my responsibility to kind of take those and embrace them”** (PGR, T12, R1). Another PGR echoed this sense of ownership over their development, suggesting a potential link between feelings of control and a willingness to embrace the opportunities on offer;

“I think that with the PhD it’s like it’s like a weird space because you’re not a taught student anymore, but you have sort of elements of that, and it’s kind of like the liberty of attending what you want. I think that also comes with like a lot of responsibility and you kind of need to take ownership of your learning and your development even more. I think that for me that’s where it kind of helps, by thinking of this as kind of a job really.”

PGR, T21, R2

Availability and access to provision

This drive to take ownership over one’s development is positive and is reflected elsewhere in the data. The Listening Room conversations highlighted that a significant proportion of PGR respondents actively consider and wish to engage with career development support. This was echoed in the social media poll, in which 40% (n.14) of those who responded to poll 3 disagreed with the statement ‘I will worry about my future career after my PhD’.

However, responses also indicated that the development provision these PGRs desire is either not currently available or they are unaware of how to access it. PGRs expressed the need for greater insights into the range of career paths they might pursue post-PhD, a need for clearer guidance on how their skills can be transferred beyond academia and what they deem to be ‘more traditional’ careers advice.

“I would value training in translating academic skills into non-academic languages. I would further value certain placements or industry shadowing opportunities. I would further value mentorship matching schemes and ...career outcomes from a doctoral graduate, and I would equally further value structured, personalised career plans tailored specifically to PGR students.”

PGR, T34, R2

Parallel issues were raised by stakeholders, who recognised the same challenges with access and visibility.

“But I think there’s still a challenge with (...) these supported services and how they get communicated and the awareness of their existence from the part of PGR students, which I think it’s also a challenge that can get in the way of many people to seek that kind of advice, that they just do not know it exists.”

Lecturer in Business Education, Informal, SHAPE, A

Interestingly, although most stakeholders considered the guidance on offer for those students who want to explore academic career paths to be sufficient, there were a small group of PGRs who expressed a lack of awareness of how to progress in academia, (see figure 3). This finding also emerges from the survey responses, where 51% (n.37) selected academic career guidance when asked what form of career development support was currently missing or insufficient. One PGR summed this up succinctly **“I don’t know how you get jobs in academia. Honestly, I don’t know anything about it”** (PGR, T30, R2).

Scepticism towards non-specific career development

For some of the PGRs within the study, career development advice that is not directly linked to them as a PGR or to their discipline is deemed unhelpful. This attitude perhaps explains why many

respondents see their supervisor or supervisory team as their first port of call for advice on development. In this context, the relevance of broader career development activities is not necessarily apparent, in contrast to the expertise of the academic staff with whom they engage;

“I feel like right now they just leave you to do your PhD and you don’t really have this like relationship with the university. Just supervisors, PhD, and then colleagues. It would be nice to have the university also play more of a part in providing like different career options. They have like career fairs, but that’s not always relevant to us PhD students I feel”

PGR, T37, R1

Responses from stakeholders working in the private sector offer an important counterpoint to scepticism on the relevance of ‘generic’ careers development and support. These stakeholders report notable gaps in practical employability skills, particularly in how PGRs articulate their capabilities when applying for roles within their organisations.

“There’s massive gaps. What we tend to find in our world is that people will apply to us, we’ll invite them for the interview, and they might fail the interview first time around because they’ve just not been taught how to effectively come across in an interview.”

Vice President and Scientific Lead, Design, STEM, N/A



If some PGRs do not necessarily perceive the value of developing broad employability skills in contrast to research skills, this may result in them undervaluing the contribution that central careers services can make in enhancing these competencies. Again, such a view may stem from the perception that careers beyond academia constitute a 'Plan B', for which preparation is viewed as unnecessary or premature. Indeed, responses to the social media poll echo support this interpretation, as 91% (n.40) of respondents to poll 2 agreed with the statement 'I'll only look at jobs outside of a uni if I have to.'

Reticence to engage with career development

Given the complexity and pressures of doctoral study, it is understandable that some PGRs indicate a reticence to engage with career development. One respondent described addressing these issues unwillingly, noting **"I feel like I've been almost forced to think about these things, rather than choosing to think about them"** (PGR, T6, R2).

Stakeholders reported seeing PGRs procrastinate and delay engagement with career development, often resulting in PGRs only choosing to focus on their next steps towards the end of their PhD.

"I see so many of them come to that existential crisis of like what am I going to do? When they get to their final year, they have that first panic of "I need to finish this." But once things are on course and it finally hits that their grant is ending (...) they're like, "well, what am I going to do?" That's where it seems to click to them that they need to do something after they finish their course."

Specialist Technician and Research Assistant, Informal, STEM, A

Barriers to engagement, such as those described here, are covered in more detail in later sections of this report. However, it is clear from the data that attitudes towards career development are influenced by a range of factors. These include the inherent prioritisation of doctoral research within the time available to PGRs, the perception that the PhD provides sufficient career development and scepticism regarding the value of additional development. Furthermore, the visibility and accessibility of development opportunities and a reticence to engage appear to shape the approach that some PGRs take. Conversely, PGRs within the study express a clear desire for ownership over their development and for forms of development that respond to their specific needs. Irrespective of the position taken, the data suggests that engaging in career development is currently largely a matter of personal choice, with a significant proportion of PGRs choosing not to participate.

Associated recommendations

Recommendation 1.

Establish and integrate a consistent definition of career development within postgraduate research degrees

1

Recommendation 2.

Clarify shared ownership and responsibility for PGR career development

2

Recommendation 7.

Build sustainable resource models to enable effective PGR career development

7

Engagement with career development

While stakeholders aspire to broad, flexible and well embedded support, which enables ongoing reflection, the responses of PGRs within the study experience a patchwork of provision that can be difficult to navigate, inconsistently signposted and not always aligned to their aspirations.

Under half (42%, n.31) of the respondents to the PGR survey reported accessing any sort of career development support in their PGR studies. Year of study was strongly related to engagement with career development. Of the 31 PGRs who responded positively to the question 'Have you accessed any career development resources or support during your PGR studies?' 77% (n.24) were in year 3 or beyond (late stage) with only 6% (n.2) of year 1 (early stage) reporting engagement with career development. PGRs in their third year or beyond provided the greatest

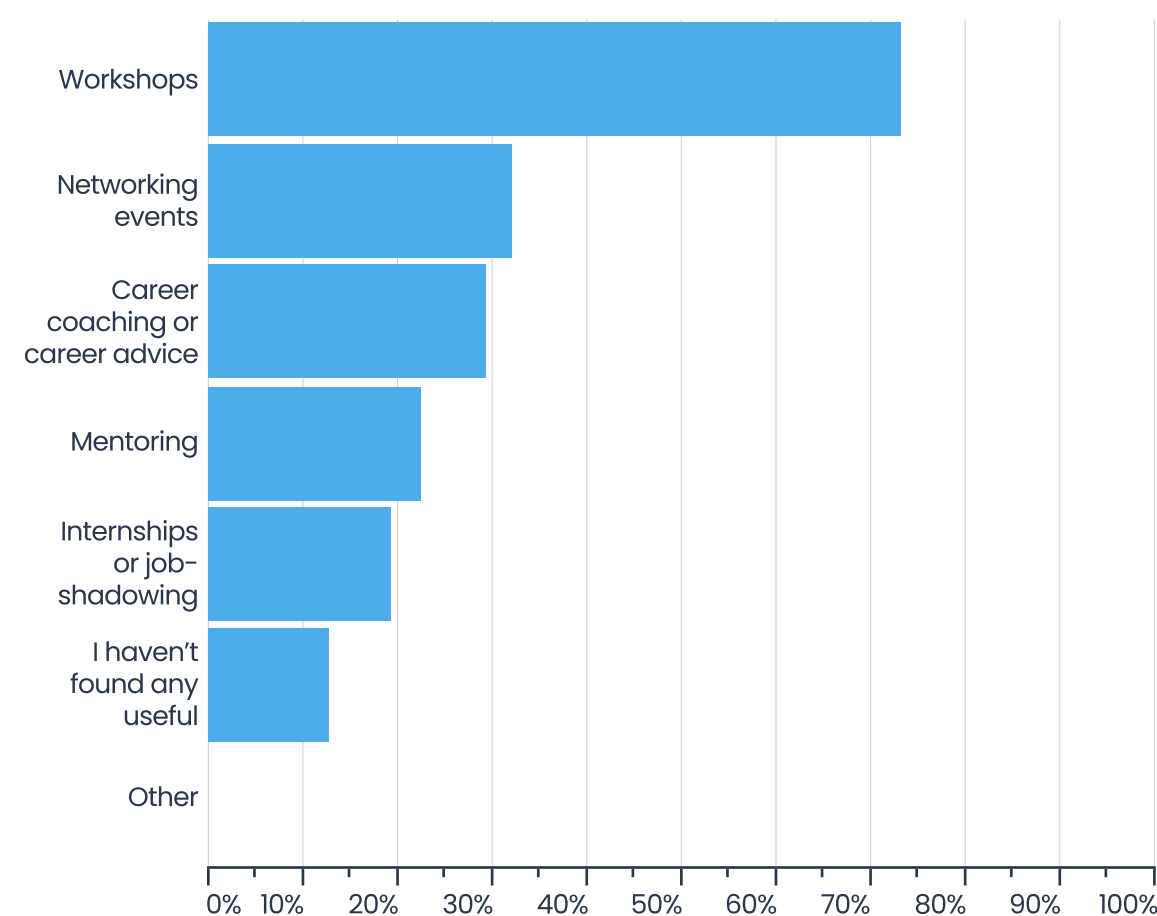


Figure 2 The most helpful types of career development activities or resources (n= 31).

number of survey responses. Analysing the percentages of engagement with career development by PGR stage, year 3 (late stage) PGRs are found to be the most likely to report having engaged with career development (53%, n.45) followed by year 2 (mid stage) PGRs (36%, n.36) and finally by year 1 (early stage) PGRs (14%, n.14). The top three types of career development activities or resources the PGRs reported finding most helpful were workshops, networking events and career coaching or career advice (figure 2).

PGRs also provided details of positive career development experiences, the key themes of which were:

- Supervisor guidance and support
- CV and job application support
- The opportunity to gain practical experience alongside the PhD – such as via placements or internships
- Networking opportunities during events and conferences
- Sense of community gained from meeting others with shared interests and concerns

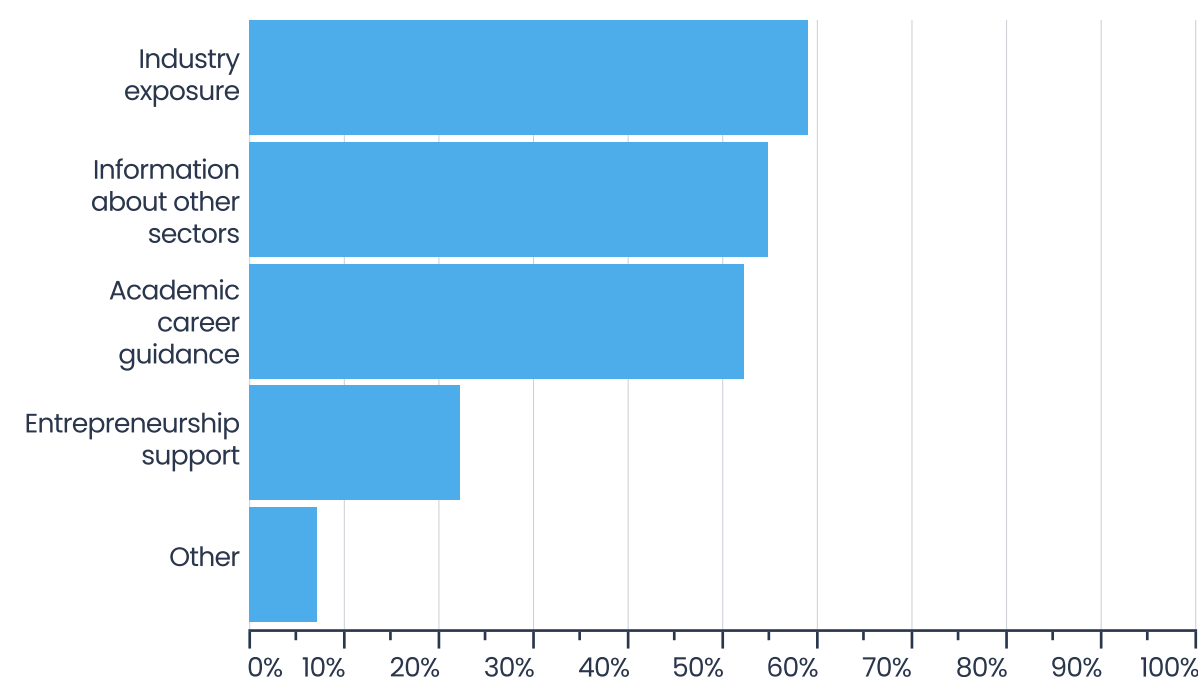


Figure 3 Responses to what career development PGRs currently feel is missing or insufficient (n = 73)

PGRs in the survey reported that career development related to navigating career changes (including support to apply for postdoctoral research positions) and opportunities to teach, were currently insufficient or missing. The desire for more opportunities to experience teaching mirrors the findings of the most recent PRES survey, in which 46% of PGR respondents reported having the opportunity to teach or demonstrate, with many commenting on the barriers to engaging with teaching (Advance HE and Neves, 2025, p.29).

As noted above, the PGR Listening Room transcripts include participants who are keenly aware of the importance of career development and who seek to actively drive their engagement. Some also express an awareness of the time and task constraints they have in maintaining a focus on career development whilst completing their PhD. One respondent noted that the process of completing their doctoral studies could be overwhelming and it was easy to forget **“what happens next”**, but by year 3 it was **“top of my priorities”** (PGR, T19, R2). Another noted that, career development was;

“Not always systematically prioritised. Research milestones have understandably taken precedence, but I actively seek opportunities that enhance employability, such as attending career workshops, developing transferable skills, and engaging in interdisciplinary collaborations. And at times to carry

out planning feels reactive rather than strategic. Especially when balancing deadlines and expectations. So I am learning that current development requires structured reflection and not just participation in occupational events.”

PGR, T34, R2

Stakeholders reported that PGRs who engaged early on in their studies, particularly in-person, continued to engage with career development activities. They reported that engagement could be encouraged by peer recommendation and/or communication, and that PGRs typically welcomed opportunities to hear from PGR alumni across different career paths, especially those who finished their PhDs recently. This was due to recent graduates being perceived as easier to relate to and less intimidating.

While anecdotal, stakeholders noted that some groups of PGRs engage with career development more than others. Their responses highlighted that women, mature, minoritised ethnic and international PGRs all engaged with career development, perhaps in response to the differing pressures or motivations they face. While it is difficult to draw firm conclusions from the data gathered within the current study, responses suggest that mature PGRs may have a clearer sense of the career they intend to pursue (or return to) and may also have caring and/or financial responsibilities that motivate

engagement with career development. In the case of minoritised ethnic PGRs, the literature indicates that inherent, systemic socio-structural barriers may create additional pressure to engage (Hancock *et al.*, 2019; Lindner, 2020; Mitic *et al.*, 2025);

“I’ve heard from, for example, minoritised ethnic PGRs that actually they feel like they have to over-engage with us in a sense in order to... Prove their worth isn’t quite doing justice to how it was put to me, but something along those lines. They feel like, I guess, over-engaging fulfils some sort of implicit obligation on them, that not doing so would be falling short, even though on paper it’s optional”

Researcher Development Training Officer,
Design, SHAPE, B

International PGRs may experience visa related pressures and, if returning home after their studies, uncertainty about whether a suitable role will be available to them. One stakeholder also described how they are working to meet the needs of neurodivergent PGRs, by providing pre-event packs enabling them to access career development.

The impact of interpersonal connections on engagement

Both PGRs and stakeholders highlighted the central importance of networks and interpersonal connections, though with differing emphases. Stakeholders tended to emphasise sector-facing networks, employer engagement and

opportunities to hear from alumni as ways to broaden PGR horizons.

“I think there’s some really good pockets of good practice in terms of employer networking, and I think bringing alumni back is what works really well.”

Director of Postgraduate Provision,
Design, Deliver, Informal, SHAPE, N/A

PGRs, by contrast, focused strongly on interpersonal networks as sources of confidence, advocacy and practical career advantage. Many described relying heavily on supervisors or established academics to **“open doors”** for them:

“I think it will come down to networks and contacts, and come down to my supervisor and who my supervisor now is, and who he recommends and who maybe he works with [and] who they recommend. So that is probably the best bet that I have.”

PGR, T13, R1

While some noted that networking felt uncomfortable or intimidating, others emphasised networking as essential to their future career success;

“Yeah, that is probably the actual biggest thing that will fundamentally lead towards career success, is knowing the right people and having them like you and respect you. For sure. Which having a good supervisor helps with that as well, because actually they know people and can introduce you to people”

PGR, T30, R1

PGRs who felt confident to engage in networking activities tended to express greater confidence in their career prospects overall. One PGR explained that their large LinkedIn network gave them assurance about future opportunities, while another described networking as central to their sense of empowerment.

“Networking and engaging in activities I think that would be one thing in my success because networking and having more colleagues in my industry and like friends and improving my public skills. That will help me in terms of my future career.”

PGR, T5, R2

Such responses suggest that confidence in navigating external networks, rather than simply possessing discipline-specific expertise, may play a significant role in the extent to which PGRs feel ready for their post-PhD career.

Taken together, these findings suggest that PGRs are most likely to have engaged with career development during the later stages of their PhD, rather than earlier in the process. Those who do engage early in their registration tend to continue to engage, while conversely, those who have not engaged may regret their decision and miss out on opportunities. Stakeholders, echoing findings in the literature, reported that some groups of students demonstrated greater levels of engagement and motivation to engage in career development. This can be in response to personal contexts such as familial or caring responsibilities, or shaped by systemic barriers linked to, for instance, ethnicity and the resulting imperative to succeed. Both PGR and stakeholder respondents described the role and impact of interpersonal connections and networks, in motivating engagement, building confidence and providing access to career development.



Associated recommendations

Recommendation 1.

Establish and integrate a consistent definition of career development within postgraduate research degrees

1

Recommendation 2.

Clarify shared ownership and responsibility for PGR career development

2

Recommendation 3.

Enhance awareness of the breadth of PGR career outcomes

3

Recommendation 4.

Reflect the plurality and individuality of PGR experiences and outcomes within career development

4

What gets in the way? Barriers to engagement with career development

As outlined above, current engagement with career development is not at the level stakeholders would like to see, nor often at the level required to positively shape how PGRs perceive their future career options. Actions to enhance engagement and, in turn, PGR career success, must therefore be informed by a deeper understanding of the barriers to engagement that respondents report throughout the study.

However, these barriers may not necessarily be perceived by the PGRs themselves, depending on their personal situation and characteristics. Whilst 73% (n.53) of respondents to the PGR survey reported facing no barriers to accessing career development, elsewhere they reflected on their potential privilege and the positive impact this might have on access. In response to the question 'do you feel that career development support is inclusive and accessible to all PGR students?' a majority of respondents were unable answer this in the positive (48% (n.35) 'not sure', 10% (n.7) 'no', 42% (n.31) 'yes').

Of the 27% (n.20) of survey respondents who did report facing barriers to career development (see figure 4), the most reported barrier was a lack of awareness regarding available opportunities. Free text comments expanded that a lack of direct work experience outside of academia and limited access to career service appointments presented barriers. Additional issues were raised, including engagement with external sectors for PGRs on visas and the primary focus given to undergraduates within institutional careers provision, which can lead to PGRs feeling uncatered for and forgotten.

Barrier: time, timing and brinkmanship

As discussed in the [attitudes to career development section](#), for busy PGRs the perceived lack of time to think about and prepare for future careers presents a significant barrier. This is further exacerbated by the timing and scheduling of development within schemes of priorities shaped by the demands of their doctoral research. In response to social media poll 1, 92% (n.45) of respondents agreed with the statement "Career development? I wish I had the time to do that!". Unsurprisingly, stakeholders are keenly aware of the time pressure PGRs face, including how these may vary across disciplinary areas;

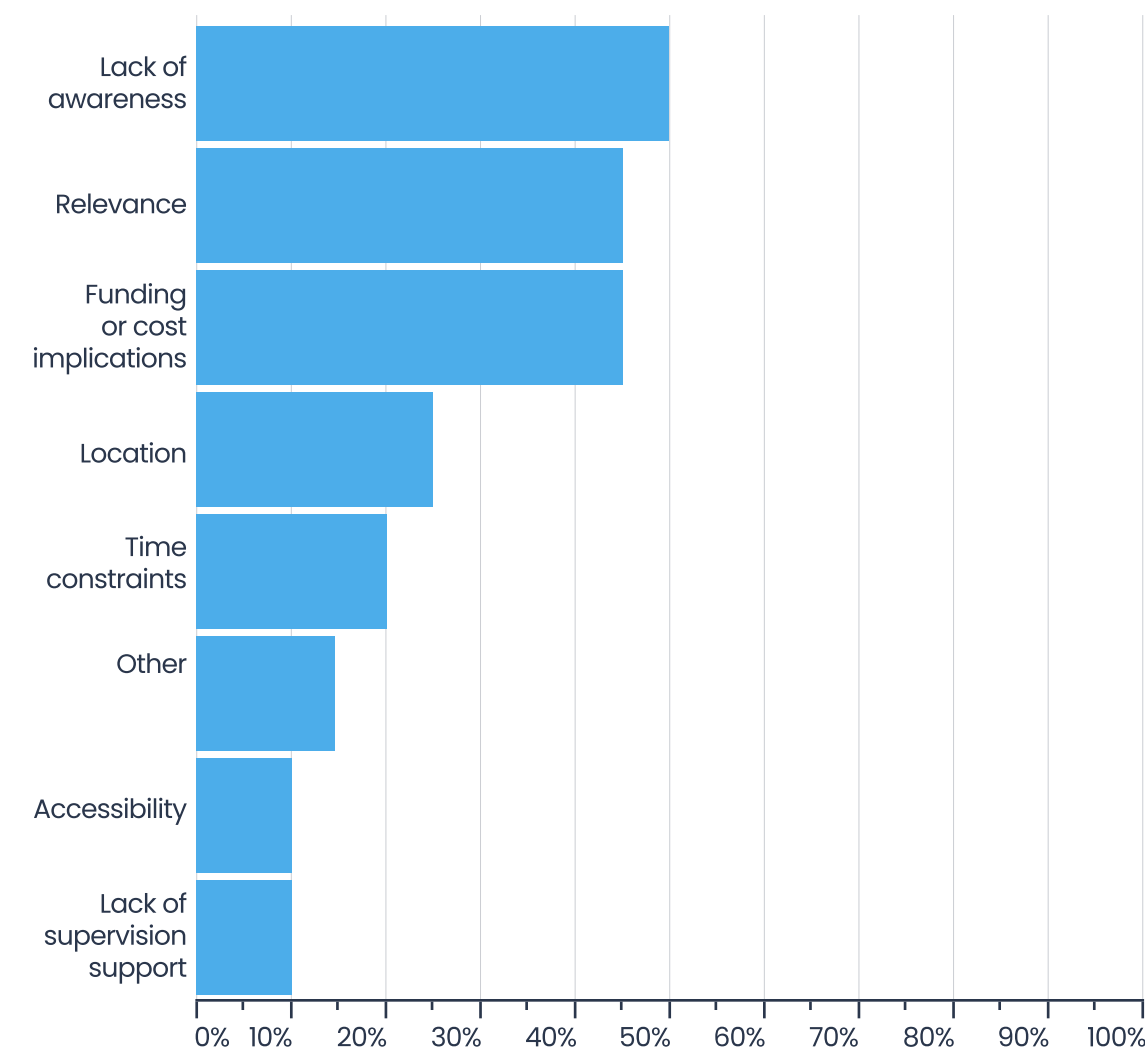


Figure 4 PGR barriers to accessing career development (n=20) from anonymous PGR survey.

"a lot of our PGRs are working on experiments which are sometimes tricky to leave (...) for example, we've got a cancer research department here and we have a lot of biomedical scientists. So when they set up an experiment, they need to be there. And if a workshop is at a particular time which they then can't access. It's important to have other resources which give the same information that they can choose to access at another time"

Careers Consultant (Researchers),
Design, STEM, A

Stakeholders also reported notable differences in PGR engagement with career development provision across the academic year, or with reference to periods of intense workload;

"what I do is I deliver a variety of in-person and online provision, and the in-person tends to sit in the autumn term because that's when we see a lot of our PGRs being most active with engagement of careers provision, and then the online offering is in spring/summer."

Careers Consultant (Researchers),
Design, STEM, A

There was a tension around the 'ideal' time of day to schedule career development activities, with stakeholders taking different approaches when seeking to be as inclusive as possible. One stakeholder noted that many PGRs work from home or have family or caring commitments, and as such they take care to offer events between 9am – 3pm. In contrast, another described an alternative approach motivated by the same concerns;

“This is something I tried and tested over the last couple of years where I schedule sessions starting at 5:00pm and it is for an hour and a half online. That’s enabling all the people who have caring responsibilities or maybe just a busy working day, and at the end of the day they have a moment to sit down and actually take part in a workshop.”

Researcher Developer, Design, Deliver, SHAPE, A

In their efforts to ensure that development was accessible, stakeholders not only considered the point in the academic year and the time of day, but also the duration of the career development intervention they offer. One described participants' positive response to shorter workshops, which they thought were worth their time **“they feel like it’s not too much of a time commitment and it’s easy to squeeze half an hour or up to an hour workshop into the working day rather than three hour in person event”** (Researcher Developer, Design, Deliver, SHAPE, A).

Proactive adaptations to the mode and content of career development that seek to increase accessibility are positive and demonstrate the commitment of those supporting PGRs. However, responses suggest that such options need to be carefully communicated. Decreasing the length of career development sessions, scheduling them outside of 'work' hours and presenting them as optional 'extras', risks adding to the narrative that such activity is unimportant. As noted, this may add to the challenge PGRs face in prioritising time for career development.

Barrier: prioritising time for career development

Respondents indicate that the start of their studies is an unsuitable time to engage in career development, as they focus on getting to grips with their PhD. As PGRs progress to the midpoint of their studies, data collection and analysis often demands priority, limiting time to engage in development. As they approach the end of their PhD, attention shifts to writing and defending their thesis and preparing publications. As a result, career development often only becomes a priority when the imperative to secure further funding or paid employment becomes an immediate reality.

As noted previously, in response to social media poll 3, “I will worry about my future career after my PhD” 60% of respondents agreed (n.21), with 40% disagreeing (n.14). While this suggests that future career options are at least considered by the majority of respondents to the poll, both

stakeholders and PGRs report that students often leave active career development until the end of their studies. One first year PGR summed this up honestly **“Where am I heading? That is a good question. Towards my second year of my PhD, that is all. At the moment, I don’t really have any other goals in sight”** (PGR, T6, R1). This was echoed by another PGR, who admitted to having not figured out career development as a first year, as they are **“trying to even get to know what I’m doing”** (PGR, T16, R2). Whilst reflecting the experience of many PGRs within the study, the risks of this approach were discussed by the stakeholders who seek to support them;

“All these competing demands, what’s most strategic, what’s going to get them through? If they think, again, the only thing they need is a thesis at the end of this, they’re not ever going to engage with other training until they suddenly go, “oh crikey, I need to apply for a job, I need to do something””

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

Indeed, stakeholders across a range of roles emphasised the negative outcomes of deprioritising career development until the end of the PhD. These included missing out on opportunities to network or engage with internships, or to access careers advice and resources before graduation and the opportunity to purposefully develop the skills needed for success in the future. Partly this related to seeing the



end point as the successful completion of the thesis, rather than taking a more holistic view.

“While doing a PhD or while doing a postdoc, we have been so engrossed in our works in our day-to-day lab lives that we sort of tend to miss out on what’s happening outside it, and by the time we realise (...) this is not working out for us, it’s too late and we have not been able to make a good network.”

Scientist, Informal, Enable, Advocate, Design, STEM, N/A

In summary, the challenges that PGR students report in terms of finding time for career development relate to both the inherent time–pressures associated with the PhD and the competing priorities demanding their time and attention. Irrespective of the factors at play, PGRs who are unable or unwilling to dedicate time to career development, particularly earlier in the process, risk missing out on opportunities to prepare for a successful career beyond the completion of their thesis. Stakeholders recognise this risk and, in some cases, have actively adapted career development provision to increase the accessibility of opportunities. Despite these efforts, time will continue to be a barrier if PGRs do not perceive the imperative and inherent value of prioritising career development in its various forms from the start of their PhD.

Associated recommendations

2

Recommendation 2.
Clarify shared ownership and responsibility for PGR career development

3

Recommendation 3.
Enhance awareness of the breadth of PGR career outcomes

4

Recommendation 4.
Reflect the plurality and individuality of PGR experiences and outcomes within career development

Barrier: The communication disconnect

The challenges of time and prioritisation are compounded by an apparent lack of clarity or visibility of career development opportunities reported by respondents.

“Yeah, the problem is that there’s too much information and not enough at the same time and it makes the communication muddy.”

PGR, T13, R1

Both the Listening Room conversations and the survey responses suggested that PGRs are often unaware of the career development opportunities they can access. The decentralised nature of much of the development on offer can present challenges. These include a lack of visibility to PGRs, difficulties for supervisors who may wish to signpost to development, issues of coordination for those delivering provision and associated inefficiencies through duplication of effort and resource allocation. In addition, decentralised or distributed career development can lack a coherent narrative, making it difficult for PGRs and those that support them to easily navigate what is available.

“The challenge for me doesn’t usually come in that there’s not enough being offered. The challenge comes in how do we pull that together into something coherent that the PGRs can make sense of”

Careers Adviser for Postgraduate Researchers, Design, Informal, SHAPE, A

Where the delivery and communication of career development is distributed across multiple teams within an institution, provision can appear disjointed or result in ‘information overload’. Potentially valuable opportunities can become lost in the noise that surrounds PGRs. Indeed, PGRs were vocal in their desire for curation and clearer communication on what was on offer. In some cases, the lack of a clear narrative regarding available development led PGRs to believe that nothing was available to them, as one noted *“I don’t have anything related to my career at the moment because we don’t have any such kind of opportunities”* (PGR, T9, R2). This was supported by one stakeholder concentrating on raising PGR awareness of the current offer, rather than focussing on providing more.

“Not knowing where to go in a university for it. There is a big, yeah, bury your head in the sand, you don’t have to go. Getting overwhelmed by being sent loads of information about things and just sort of ignoring it. If it’s not overly obvious that it’s relevant to you as a PGR, probably just ignore and don’t really know that they could go to their central student services for this support (...) a lot of universities will have knowledge exchange offices that could really support and help them, but they just probably don’t think that it’s for them because they’re not staff, and they’re not undergrads”

Director of Postgraduate Provision, Design, Deliver, Informal, SHAPE, N/A

Ambiguity surrounding the structure, availability and responsibility for career development activities can result in duplication and gaps in provision. Stakeholders identified gaps in relation to development on transferable skills and careers beyond academia. Conversely, they felt there was sufficient support for careers in academia and research.

"I would say as a university, we are unconsciously messaging that an academic career is the only one that you would go into. (...). One of the big things we want to be talking about is where you could go with these skills, what you could be doing, the broad range of things that you could be doing."

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

Stakeholders noted that clear communication of available provision is impacted by the variation in definitions and understanding of career development across the sector (CRAC *et al.*, 2024; Rivas, 2024). Indeed, institutional teams may not share a common interpretation or vocabulary, creating additional barriers to the effective communication of opportunities. This is further complicated when PGRs are exposed to other sectors, for instance through industrial supervisors or placements, which may use their own context-specific definitions.

"If anything, sometimes it feels like there's a tendency in some quarters to be quite specific about what careers development or careers training means, and it boils down to like "this much of a placement" or something that specific, which I sometimes feel is a bit narrow."

Researcher Development Training Officer, Design, SHAPE, B

These responses suggest that coordination is key to the effective communication and delivery of career development if PGRs are to be engaged and supported effectively. Where quality provision is available but distributed across different teams and services, the impact and return on investment can be diluted, and it can be difficult for supervisors to signpost PGRs to what is on offer. However, coordination also requires clarity and alignment of objectives.

Stakeholders within the study identified inconsistent performance metrics between teams and a lack of shared objectives between team managers, as presenting challenges to effective coordination. One stakeholder noted that such factors limit their ability to **"make coherent what we do. Because everybody's in these silos working to different objectives"** (Careers Adviser for Postgraduate Researchers, Design, Informal, SHAPE, A). Another identified organisational divisions between staff and student facing teams, combined with perceptions of the status of PGRs, as hindering effective development provision;

"Because PGRs are not staff but researchers are staff. So do you split teams that once worked together supporting researchers? (...) I find that something that I did also come across which is sometimes a bit frustrating because you're kind of... like a PGR, you kind of have the assumption that you are already in an academic career but you're not yet considered a professional. So even the support in your own institution tends to differ based on if you are a professional or if you are a student."

Lecturer in Business Education, Informal, SHAPE, A



Associated recommendations

Recommendation 1.
Establish and integrate a consistent definition of career development within postgraduate research degrees

1

Recommendation 2.
Clarify shared ownership and responsibility for PGR career development

2

Recommendation 5.
Optimise the communication of PGR career development

5

Barrier: Uneven capacity and resourcing

Where coordination and shared objectives are in place, stakeholder feedback suggests genuine benefits. One such example is within CDTs. Stakeholders observed that PGRs in CDTs benefited from the structured career development opportunities afforded to them in comparison to other PGRs. These examples of structured provision often represent effective practice. However, they also highlight disparities in opportunity and underscore the precarity of some current provision. This precarity stems from both the dependence on distinct externally funded initiatives, through external agencies, and variations in how internal funding within university budgets is allocated. One stakeholder identified this issue with the internal allocation of funding to PGR development;

“[The Government] rely on the universities to consider that it’s in their best interests to run knowledge exchange schemes, to run skills programmes for their postgraduates, and to do all kinds of engagement with businesses as well, so that those training programs and those other activities are a little bit more targeted towards what might be useful for the system. (...) But the fact of the matter is, based on the structure of how universities are funded, there’s actually probably a little bit of pressure there to cost-cut on some of these very activities.”

Senior Policy Manager, Deliver, STEM, N/A

Pressures arising from resource limitations and funding precarity are exacerbated by capacity issues and vacancy management. Stakeholders described the double-edged sword of grant-funded roles dedicated to PGR careers support, which add real value for the funded period but leave significant gaps in provision once discontinued. As one noted **“I’m one person, so without that extra role I’m limited to what I can do really”** (Careers Adviser for Postgraduate Researchers, Design, Informal, SHAPE, A). Limitations on how funding can be used were raised as an issue, especially when combined with organisational structures that hinder coordination;

“What I find particularly interesting is that there are pots of money that maybe try to support staff to do certain things, that might provide training, that are not allowed to be because of where the external funding comes from (...). So I think there is that— there’s something a bit crazy about the entire system— and also how we consider people and how we silo a lot of what we do. But funding is the big thing. We do an awful lot on a very small budget for what we’ve got.”

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

For stakeholders in careers or researcher development roles, resources are noted as limiting their ability to tailor provision to the extent that some PGRs wish. Stakeholders describe the difficulties they encounter in engaging PGRs with activities, particularly as sessions delivered centrally may be perceived as offering support that is either not sufficiently specialised or insufficiently aligned with academic career trajectories. As a result, some PGRs deem these sessions ‘too basic’ to be useful.

“My job is to convince PGRs that what we’re running centrally is still relevant to them. You know, CV is a CV, but they still, I don’t know, feel like it’s too babyish for them or something.”

PGR Employability Consultant, Design, SHAPE and STEM, A

Associated recommendations

Recommendation 6.
Share effective practice across the sector to support continuous improvement postgraduate research degrees

6

Recommendation 7.
Build sustainable resource models to enable effective PGR career development

7



Barrier: Engaging with career development is not the norm

While offering specialised, or PGR focused development can prove challenging due to resource constraints, it may not be taken up by PGRs even when available. Responses from stakeholders indicated that, for some PGRs, career development is not seen as a normalised part of the PhD. This was a source of regret for some;

"I would really like it to be really normalised. An expectation that they will give over time to doing career development activities. That their point of being here is not just to be part of the research machinery, that they actually have more to get out of this. I would really like that."

Careers Advisor for Researchers, Design, STEM, A

Tied to the attitudinal factors discussed earlier, career development may not be considered relevant or a priority for a number of reasons, including being seen as a "distraction" or superfluous, as the PhD is career development in and of itself. The latter is particularly true for those PGRs who aspire to an academic career, perhaps as the natural next step in their journey.

One stakeholder reflected that, as a PGR, you are not exposed to the development of 'soft skills' as in academia **"the entire focus all the time is to publish, publish"** (Scientist, Informal, Enable, Advocate, Design, STEM, N/A). Another

noted that some PGRs commence their studies **"with a tunnel vision in terms of academic career"** which means they don't engage with career development resources until they realise **"maybe I don't want to partake in a traditional academic career (...) once they have had the existential crisis"** (Specialist Technician and Research Assistant, Informal, STEM, A). A stakeholder who specialises in supporting research careers noted that;

"Some PGRs who have spent their whole life in academia haven't spent the time on themselves and reflecting on themselves as what they might like to do. It's kind of, and I hear this quite a lot, 'I've just jumped into the next thing and then the next thing, and I found myself here and I'm not sure if I want to be'. So I think that that is another challenge for them in terms of careers"

Careers Consultant (Researchers), Design, STEM, A

If PGRs are inculcated into a culture that promotes a focus on careers within academia, the primacy of the research endeavour and established metrics of academic success, it is unsurprising that career development is not perceived as a professional norm. In such contexts **"the focus is always research, the thesis, the Viva and the career is just this orphaned last topic that just keeps on sort of limping until the end"** (Researcher Developer, Design, Deliver, SHAPE, A). Those with significant influence on the experiences

and perceptions of PGRs, including supervisory teams, have an opportunity to challenge these preconceptions and establish new norms of practice that incorporate career development as a critical aspect of doctoral study.

Barrier: supervisor expectations and support

Clearly, the supervisory relationship is a key factor shaping the experience of PGRs. As noted, the current study did not purposefully sample supervisors, as the supervisory role is well covered elsewhere (RSVP, 2023; UKCGE, 2021; UKCGE, 2022; UKCGE *et al.*, 2024). However, both stakeholders and PGRs naturally raised the central role that supervisors play in relation to levels of engagement with career development. Stakeholders reported that some PGRs appear to be hesitant in discussing career progression with their supervisors, in case they were unsupportive. One international PGR raised this directly;

"So I would say that my supervisor was not really very happy about me doing all this career developments and other stuff, but I had to do that because I knew I am an international student and I should make my communication and my background in the same discipline is different, so for me to get a job I have to polish myself."

PGR, T25, R1

Indeed, some PGRs reported that their supervisors had held back opportunities for career development;

"I talk to my supervisors like can you teach me how to write grants, you know, like when you write a grant can I shadow you, or something like that. And they've been like, 'you know what, in your third year we will talk about it', and I'm already in my third year now but we have never spoken about that, so I suppose those are the areas that goes under the shadow."

PGR, T3, R2

Supervisors are responsible for guiding PGRs towards the successful completion of their PhD, and it is undoubtedly the case that this advice will often be informed by a clear sense of the PGR's current progress and needs. However, from the PGR perspective, reticence to seek career advice and guidance may also be shaped by the perceived expectations of supervisors in relation to what career success looks like.

"In certain cases, there is an idea of loyalty to a research group. I do feel, particularly when there's been discussions prior with the PIs of like applying for grants for postdocs and stuff like this, I feel like there is a fear of looking into other opportunities and ruining that loyalty and that culture. It's not like an absolutely prevalent thing, but I've seen this happen before."

Specialist Technician and Research Assistant, Informal, STEM, A

Feelings of loyalty to the supervisor, the discipline and the research endeavour may be informed by the norms of

academic culture discussed above. The Listening Room data highlights the value and importance PGRs place in their supervisors and the support they provide. As such, PGRs may, in some circumstances, be unwilling to pursue opportunities that risk challenging perceived expectations, may affect their supervisors' perception of them, or that diverge from the established norms of academic progression.

Barrier: Evolving professional identity

PGRs within the study articulated shifting perceptions of their status and identity and these varied between respondents. How they viewed themselves, their role and their place within the wider institutional ecosystem exerted influence on their approach to, and experience of, career development. For many PGRs, the assumption that they will continue into an academic career appears to shape an emergent identity as a research professional, though this may at times be transitory dependent on the context. One PGR described that they “jump in and out of feeling professional or not” (PGR, T19, R1) depending on who they are working with or presenting to at the time. Another described how their identity as a professional was evolving and inconstant;

“I feel most like a professional when I present at conferences or seminars, and engaging in scholar debates, I publish or prepare work for publication,

collaborate with colleagues as an equal contributor, and when I also mentor or support more junior students. However, my professional identity is not constant, because like I say, it's evolving. There are moments of self-doubt when I doubt myself, particularly when comparing myself to established academics or navigating environments where expectations are implicit rather than explicit. Also imposter syndrome can surface when I feel I should know more, or from a higher level. Overall I would say that I feel that professionalism is no longer something external that I'm aspiring to. It's something I am actively embodying, even if I am still consolidating that confidence.”

PGR, T34, R2

In such instances, self-identity is contingent on the way the PGR feels they are recognised or accepted by those around them. This speaks to the perception of PGRs as inhabiting a space between student and staff, described by one PGR as “we have that weird in-between like you don't really belong anywhere. We consider you amongst us but you're not a researcher yet, don't get ahead of yourself” (PGR, T13, R1). Stakeholders referenced this same sentiment, noting how it directly affected engagement with development opportunities;

“I think when they're funded to come and do a PhD, they just come and do the PhD and [are] not realising that they're still students because there's

often a... not quite professionalisation of PhD students, but they kind of become part of a group in a way that they are more like employees than anything else. I think there's sometimes a bias in forgetting that they are indeed students and that means there's lots of things open to them that wouldn't be open to them if they were an employee.”

Careers Advisor for Researchers, Design, STEM, A

An academic stakeholder expressed a similar interpretation, noting that how PGRs view themselves and how they are viewed by those offering support, can lead to missed opportunities;

“I think PhD students are kind of in this little gap (...) I think it could be that the services are actually available, but they're not tapped into by both groups, the people who need it and the people offering it. They're just kind of missing each other specifically for this PhD student group. I think there are things out there and there are things out there that are not specific to academia, but they could just be missing out.”

Assistant Professor, Informal, Design, STEM, A

These examples raise questions about the status of postgraduate researchers within the current system and what is 'student-like' about the PhD experience. Responses from participants echo wider reflections on the 'blurred lines' experienced by PGRs (Crook *et al.*, 2021; RSVP, 2023; UKCGE, 2021; UKCGE, 2022;

UKCGE *et al.*, 2024; Wisker, 2016; White *et al.*, 2024) and suggest the impact that academic career aspirations, socialisation into academic norms and identity formation can have on the efficacy of PGR career development. Opportunities, resources and support that are 'student focused', or that are not targeted at developing 'research professionals', may not be viewed as relevant or prioritised within the limited time PGRs prioritise for activity beyond their doctoral research, dependent on how their position, role and identity is understood. This potentially narrows the development opportunities that PGRs are signposted to and choose to engage with, which in turn risks limiting their future career options.

Barrier: Assumptions around disciplinary differences

Stakeholders held contradictory assumptions around the impact of disciplinary area on PGRs' engagement with career development. Some felt that engagement was higher from STEM PGRs, due to clearer industry routes and more practical, targeted opportunities. Others argued that STEM PGRs were less engaged, for instance due to the time demands of lab-based research. In contrast, other stakeholders felt that humanities or social sciences PGRs engaged less in institutional activities, with others believing they were just more self-directed in their development.

Responses to these perceived differences varied. One career consultant

suggested that, while offering variety was key, the very specific research focus of PGRs meant that they needed individual guidance. However, the same respondent noted that this ideal of personalised provision was unfeasible due to capacity **"I couldn't see 4,000 PGRs on my own!"** (Careers Consultant, Design, STEM, A).

Conversely, some stakeholders deem that career development should focus on being broader and wider in scope rather than narrower, though there was recognition that a balance was needed.

"I think if you kind of take the subject specificness out of it and treat it as a process and talk to people about how the process works and how your job application is judged against a set of criteria, that I think helps particularly PGR analytical mindsets. Because then it becomes not a who am I? [but] How can I fulfil this role? You can see it more objectively."

Senior Research Developer (PGR),
Design, SHAPE, A

A narrow focus may also reinforce disciplinary boundaries that restrict broader thinking around career development. For example, while some existing narratives suggest STEM PGRs have clear pathways into industry roles, this may not reflect the lived experience of many. A range of interrelated factors shape PGRs' career aspirations and awareness of available career opportunities. These factors

include: personal goals and disciplinary norms (Lane *et al.*, 2025); risk tolerance, previous private sector experience, relationships with supervisor/s, access to structured career development (Skakni *et al.*, 2026); personal factors such as family, work-life balance, financial security and anecdotal evidence (McAlpine *et al.*, 2021). One postdoctoral researcher reflected on their experience as a PGR;

"I saw a great position for me. I could be a good candidate for that, but times are not right. That happens to everyone, I think. In science, it's a bit more complicated, I think, because there is so much competition. We have to move, basically leave countries, move several times if you want to pursue what you really would like to do as a researcher on a daily basis, or you settle and then you have to find whatever you have available in a specific place. I don't think that's the same for other fields, to be honest. I don't see lawyers doing that necessarily, or other kind of professions. It doesn't involve that much of a sacrifice."

Postdoctoral Research Associate,
Informal, STEM, B

Similar sentiments were expressed in relation to the opportunities open to PGRs within Humanities disciplines. One respondent to the survey provided an honest reflection on their experiences. Despite engaging with a range of career development, including fairs, one-to-one advice and workshops, they were left disappointed;

"It is disheartening to realise how they either forget about PhD students, or they don't understand what we're doing and what we can bring both to an academic and non-academic job. It is also sad to see how there is no guidance (nor hope it feels), to work in a humanities discipline. It feels like academia is the only option to get a job related to what you do if you're in most humanities fields.(...) The fact that we get jobs after the PhD is most of the time because we need a job, it doesn't mean we get a job in a sector we like or directly applying our research knowledge. I have colleagues who are literally bartenders after the PhD, "trying to make it in academia", having precarious temp jobs as teaching assistants or surviving like that while they wait to "make it" or find something relevant. It's honestly sad to see how very little support the universities give to PhD students in every sense, and especially to prepare them for a career after. It seems only STEM graduates are better off after the PhD. "

PGR survey respondent

This powerful feedback captures both the experience of some PGRs within the sector and the inherent assumptions regarding disciplinary career outcomes and opportunities. These assumptions create contradictions. STEM PGRs are frequently deemed to benefit from clear pathways into industry and therefore presumed to engage less with career development. Others note that these expected pathways lead to greater engagement, as the PGRs target skills development towards distinct outcomes. In parallel, career outcomes for SHAPE PGRs can be viewed as less defined, which can be perceived as creating a greater need for career development. This need, in turn, may be frustrated by a lack of alignment between the development options available and the aspirations of SHAPE PGRs. Collectively, these issues highlight the challenges that can arise from disciplinary narratives and the careful balance needed in respect to career development provision as a result.



Barrier: PGR circumstances

Additional barriers to engagement arise in relation to the personal circumstances of PGRs and how these are reflected, or not, within the design and delivery of career development opportunities. As a diverse community, PGRs represent a broad spectrum of lived experiences. While this study cannot report on the full range of variables that shape these experiences, some recurring factors are raised by respondents throughout the data. These factors include protected characteristics, socio-economic background, past work experience, caring and familial responsibilities and whether they are home or international students.

Stakeholders recognised the nuanced impact such variables can have and the challenges they present for those responsible for supporting PGRs, including with career development. One stakeholder articulated this, noting the imperative to identify solutions, **“what do the institutions do to minimise those barriers? Are there avenues for advocacy?”** (Teaching Fellow, Informal, STEM, A). Another reflected that currently there were no effective mechanisms in place to support key groups within the PGR community; in a context in which academia is **“in a very precarious, constrained space”** career support for women, minority ethnic students, neurodivergent PGRs and those with disabilities is **“even more narrow”** than for the wider population (Head of Network, Design, Deliver, SHAPE, N/A).

Responses also reflected the distinct experiences of international PGRs and how their personal circumstances shaped levels and forms of engagement with career development. Practical concerns related to working and studying abroad, including financial constraints, visa status, access to healthcare and adapting to the UK climate, were seen as impacting the time and attention that could be allocated to development.

“Honestly, it’s been probably one of the hardest things. (...) It was like ‘congratulations, you’ve got the scholarship and you’ve got to be here in seven weeks’, so it was like getting the visas for my wife and I, and then we literally sold everything we had to pay for everything. Like you’ve got to pay for the healthcare upfront, (...) and it was about £15,000 for both of us and so we were like okay, sell our car, sell everything. (...) and as part of my scholarship I have a stipend, right, so I need a bank account, but to get a bank account I need to have an address, but to get an address I need to pay for a lease and to pay for it I need a bank account, so I was like ‘what do I need to do?’”

PGR, T10, R2

In parallel, cultural norms and expectations were identified as a common issue affecting engagement with career development and the perceived efficacy of such opportunities. The latter included teaching styles.

One Nigerian PGR noted the difficulties international students face when adapting to different pedagogies, **“in Nigeria, we believe in ‘Hold my hand and teach me this thing’, rather than telling me to click this and click that. So it’s a bit challenging for international students when they are not ‘spoon-fed’ into it”** (PGR, T19, R2). Another international PGR noted the broader impact of studying in the UK, commenting;

“We belong to a different culture and a different environment, so I think that we definitely lack some confidence when we need to work in a totally different environment.”

PGR, T11, R2

This potential impact on confidence perhaps partly lies behind the reflections shared by a postdoctoral researcher, interviewed as part of the stakeholder sample. They noted that more needed to be done to respond to the needs of a diverse PGR population:

“I think there are probably cultural barriers that affect not only reaching out to getting career support, but other kinds of support from the university or from the department. It’s not specific to this only, but I think it does affect how students and postgrad researchers involve (sic) with the university’s activities or events in general. I think there’s like a lot of work to do in terms of open options. (...) There’s a lot of diversity, like cultural diversity at the

university. Sometimes events, I don’t think they capture this diversity or they don’t consider that necessarily so that people... they don’t feel included.”

Postdoctoral Research Associate,
Informal, STEM, B

For others, the realities of being an international PGR act as a driver for engagement with career development, the potentially precarious position of international students acting as a motivator;

“I keep wondering what next. My visas, I’m an international student, what happens next? (...) those are factors that are key in making this a super priority for me, to be honest.”

PGR, T19, R2

Indeed, students who ultimately plan to return to their home country may have to consider the availability of suitable roles or decide whether to prioritise proximity to family over pursuing a position that uses the skills and knowledge gained during their PhD. Each of these factors can influence how international PGRs assess the relevance and value of different career development opportunities.

Stakeholders referenced the broad diversity of the PGR community and how this challenged inherent assumptions regarding the PGR experience. High living-costs mean that PGRs may need to seek additional employment, mirroring the experience of many

undergraduate students (HEPI Guest Post, 2025). Similarly, mature students may be more likely to have caring and financial responsibilities that affect their aspirations, time and career development needs. In each circumstance, additional time pressures and affordability considerations may determine whether PGRs are able to engage with career development.

“The traditional perception of a student that comes through from undergraduate does a PhD, works full-time, and lives on campus, and, you know, sort of is doing it— this is their life— is not the case for the majority of our students.”

Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A

The data makes clear that career development needs, career aspirations and individual PGRs' ability to access support are not homogeneous. Respondents noted that seeing themselves represented or at least understood, by those delivering career development was a factor in whether they engaged. One PGR survey respondent shared their experience of career development as **“It is often focused on business, also very few LGBT+ or diverse people— I don't know if they understand me as a trans person”**.

For some, factors relating to their stage of life play a role in shaping the support they both desire and can access. For one mature student who responded to

the survey, age and experience directly impacted what support was available, **“I have found people unable to offer me advice because I am usually further on in my career than they are. I have, in fact, twice been mistaken for a lecturer when trying to book a careers meeting”** (PGR Survey respondent).

Another noted that they were no longer on a career path, but studying for a PhD had empowered them to **“have a more richer (sic) retirement (...) it's prepared me for my third age”** (PGR, T7, R1).

One stakeholder captured the transitions and challenges that life-stage may bring;

“It's like lots of PhD students, they're in this life stage where they're wanting to settle down, wanting to get married, have children. How does that impact? Like, because even if they stretch out the PhD, it's often the question about, look, I want to move on. I want to finish, but I'm struggling and I'm finding it difficult. (...) It's impacting lots of next phases in life. Where you want to be living, those big decisions that are just classic by age group and life stage. (...) as long as you're a student, in a way, it's quite safe. But the moment you get out of that, you have lots of other things to confront. I definitely have students who keep talking about those kind of issues, like, what am I doing with my partner? We want to get married. Where are we going to live? Those kind of things would then impact on your career options.”

Assistant Professor, Informal, Design, STEM, A

While life-stage raised issues that likely cut across the sample, other factors related to distinct groups of PGRs. In particular, respondents highlighted socioeconomic background and the experience of those who were the first generation to go to university. Some stakeholders were keenly aware of the financial constraints this group of PGRs may experience. The extended periods of precarious employment often required before securing a permanent role effectively make an academic career inaccessible for those without financial security.

“If you want to pursue academia, you have to be able to go through a long time of uncertainty through postdocs. Obviously, only a certain demographic can afford to do that. Not everybody can have a very, very temporary contract, one after the other, after the PhD. I see that very much as a driver out of academia. The bubble has burst; everybody knows that.”

Professor and Head of Department, Informal, SHAPE, A

In this context, the availability of career development that supports a range of potential careers beyond the traditional academic pathway is critical. The potential absence of financial security and its impact on career development and progression was associated with socioeconomic background by stakeholders and PGRs. One survey respondent noted that time and location constraints **“can end up costing us money”** and that **“support for**

working class students is key to assist this” (PGR Survey Respondent). Others described the pressure to fit in and assimilate, experienced as a purposeful activity demanding focus and attention;

“I think that I get intimidated by other people sometimes. Some of our peers, they speak very eloquently and I've got my really common accent here and I try and turn it off, because I remember I've got to speak properly, and then every so often I forget and I start putting my South London accent on, and it's like 'actually you've got to speak properly, speak nicely'.”

PGR, T20, R2

The same PGR explained the emotional effort such assimilation requires;

“I'm not from a normal route into the university either. I went to a really rough comprehensive school and my dad is a refugee. I'm not from the posh schools that a lot of our cohort is from, (...) I've had just to conquer my fears.”

PGR, T20, R2

Such feelings of not belonging, or of needing to present a socially acceptable façade, suggest challenges that may reduce engagement with career development framed within the norms of academic practice. For first-in-family PGRs, this can be further exacerbated by family expectations and perceptions of success. An executive coach within the stakeholder group relayed a recent conversation that speaks to this issue;

"Someone said to me recently (...) this doesn't work for working class people." I was like, "it works for some." But I can see what she means that she's like, "No, you just need to get a proper job," none of this airy fairy values based, kind of like, "Oh, do what you love and you'll never do work a day in your life," like, you know, when you've been brought up all your life to be like, just get your head down, work hard, a proper job that pays you a proper salary, preferably like an accountant or something. Yeah, and possibly because their family's still saying, "You can't be a student forever." Even postdocs tell me that, that they're like - their families are still like, "You can't be a student forever. Now you need to get a proper job." They're like, "I've got a proper job.""

Executive Coach, Informal, STEM and SHAPE, N/A

For one PGR, following a path that perhaps exceeded such expectations had been a positive experience;

"I come from a working-class background and so there wasn't any expectation in my family that I'd become an academic. It was almost like I'd made it. When I became an academic my mum and dad couldn't believe it. My dad was a carpenter and my mum was a home help and they just couldn't believe that one of their children would become an academic"

PGR, T7, R1

In contrast, stakeholders noted that certain advantages persist for those who come from more affluent backgrounds, or from families with a history of university education. One discussed the benefits of being able to access influential networks of individuals, adding "I think for example working class academics, be they international or be they home students, they usually do have more of a challenge with accessing the social capital" (Lecturer in Business Education, Informal, SHAPE, A). Within the Listening Rooms, a PGR noted that, as their parents had not been to university, they could not provide the kind of career support required (PGR, T39, R1).

While representing only a sample of the individual circumstances shaping PGR experiences, these examples highlight the opportunity-gaps and barriers to engagement that career development must address if it is to effectively support the diverse PGR community. Collectively, the barriers discussed offer a foundation for understanding what may need to change at both an institutional and sector level to align career development practice to the needs and expectations of PGRs.

To inform this ongoing process of enhancement, the following section draws directly on the thoughts and reflections of participants regarding effective approaches to career development.

Associated recommendations

Recommendation 1.
Establish and integrate a consistent definition of career development within postgraduate research degrees research degrees

1

Recommendation 4.
Reflect the plurality and individuality of PGR experiences and outcomes within career development

4



Opportunities to enhance PGR career development

Across the study, PGRs and stakeholders provided feedback on distinct aspects of career development. Viewed collectively, their responses highlight a common narrative regarding the positive impact of networking, mentoring, engagement with peer communities and opportunities that provide focused, actionable development. These same approaches were favoured by respondents to the PGR survey, when asked which forms of development they would like to see more of (figure 5). Inevitably, these aspects of career development are experienced, valued and approached differently by respondents.

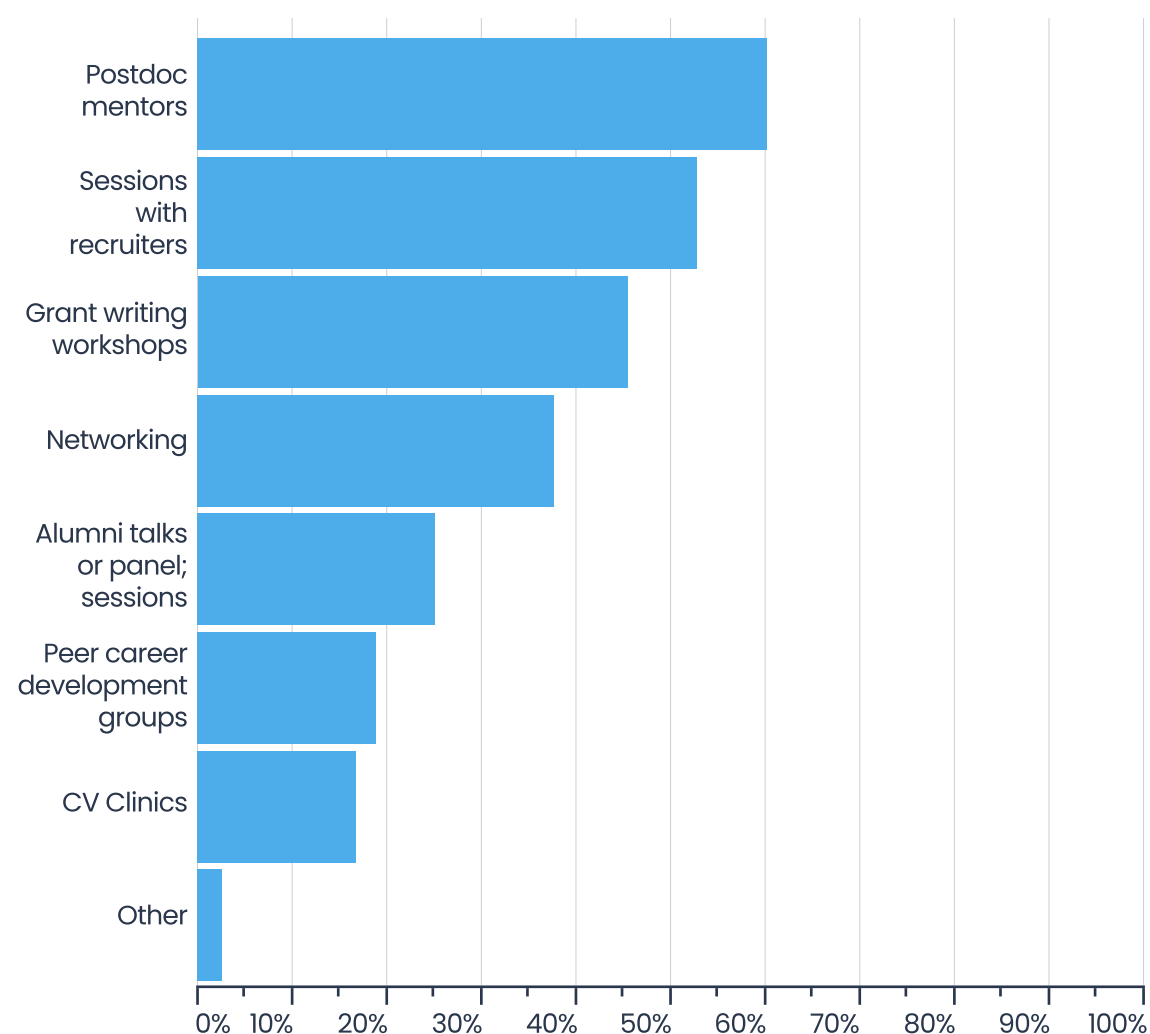


Figure 5 Responses to question 'What types of career development opportunities would you like to see more of?' (n = 73).

Networking

The importance of networking

Throughout the Listening Room conversations and stakeholder interviews, networking is cited as being central to effective career development. Networking is discussed as both an activity and a skill, with significant potential to influence how PGRs scope career options, connect to opportunities, build and display confidence and interpret success.

Access to networks and networking opportunities provides building blocks for professional relationships and the formation of professional identity. Networks operate as sources of information, a means to access support and a way to raise one's visibility, reputation and standing in a particular field.

However, while networking is often perceived as essential, it is also recognised as a challenging skill that must be learned and practiced. To this end, some PGRs report becoming increasingly purposeful and strategic in their engagement with networks over time, as attention turns to life post-PhD. One described the importance of networking in clear terms, "**[the] biggest thing that will fundamentally lead towards career success, is knowing the right people and having them like you and respect you**" (PGR, T30, R1). Another described that networks were key to success;

"It's knowing people. (...) It's all knowing people. It's so much networking. I'm surprised how much of this PhD has shifted from knowing the technical science to just having diplomacy skills."

PGR, T13, R1

Despite broad recognition of the benefits of networking, stakeholders and PGRs equally recognised that it can be difficult. While some participants enjoy meeting new people and saw value in informal exchanges, others strongly disliked networking or found it anxiety-inducing, as one PGR noted "**networking has always absolutely terrified me**" (PGR, T28, R1). In such contexts, the role of supervisors and other key stakeholders in providing support and encouragement becomes significant.

The role of supervisors and academic networks

Supervisors and mentors are key figures in the development of networking skills. The data shows that supervisors often act as 'introducers' who can endorse a PGR's credibility, connect them with influential contacts, encourage participation in networking events and role-model the impact of networking.

"I had a research assistant job when I finished my undergrad and I remember my supervisor said to me like, 'When I was young, I didn't realise the importance of networking', and she was knighted and all that so she was obviously doing something okay, but I have always remembered that. I don't particularly like it but going out and 'Hello, blah, blah, can I just talk to you for five minutes?' and I feel like I really try and do that."

PGR, T22, R1

Conversely, when supervisors discourage or limit access to opportunities for networking, students must cultivate networks independently, or **"they can get really stuck and then don't know where they're going"** (Director of Postgraduate Provision, Design, Deliver, Informal, SHAPE, N/A). Participants frame networking as a form of social capital, an essential asset for navigating academia, building identity, accessing opportunities, and sustaining a sense of professional belonging. Often, this social capital is generated within the academic networks most accessible to PGRs.

Indeed, academic and research networks are consistently discussed by PGRs as influencing their development and career planning. These networks are built and sustained through conferences, seminars, research groups and collaborations. Participants emphasise that these spaces offer practical, experience-based knowledge that extends beyond the formal learning gained through workshops or training.

"I wasn't expecting that much networking, but we have a lot of workshops and training sessions solely to just meet other people and get an idea of what they're doing and their research and we get the chance to visit them in their labs (...). It is really fantastic. It gives you so much more knowledge than what you pick up just reading a book about the same topic."

PGR, T6, R1

Participants describe intentionally attending conferences and events to increase their visibility within relevant communities, especially where visibility is seen to enhance future employability. One PGR expressed this sentiment directly, reflecting on the nature of her discipline and the opportunities provided to meet with the wider department, **"it's such a broad discipline that you kind of start thinking (...) I am this tiny grain of sand in this whole thing, so I'm like what am I bringing to the table and how do I make myself visible in the whole thing?"** (PGR, T3, R2)

Alongside opportunities to raise their visibility and professional identity, PGRs highlight the grounding effect of peer networks, the reassurance that others share similar challenges, and the confidence gained when supervisors actively encourage career exploration or help manage setbacks.

"I've been actively trying to join more networks and join more like-minded people, because there were a lot of really lovely people at (university) and

you've got to find your tribe, you know? I think that once you've found your people that get you, not just your work but get you as people. I've got friends in other disciplines who haven't got a clue what I'm doing and I don't have a clue what they're doing either, but it's all good and it's nice to have their support, even if it's just to read through some notes for me or something like that. It's really helpful."

PGR, T20, R2

Exposure to academic networks also affects confidence. For some, interacting with others provides a helpful reference point from which to reflect on their own progress. For others, networking environments provoke anxiety, driven by comparisons with peers or discomfort with informal social interactions. PGRs report relying on networking for confidence while simultaneously feeling intimidated by it; creating a tension between the perceived necessity of networking and the emotional difficulty of engaging in it.

"I hate networking. I hate it so much. It's so hard. It's like the worst part of being in the PhD programme, its sign up on LinkedIn, like make friends, go talk to people. I'm like 'Ugh, they're so much smarter than I am'."

PGR, T40, R1

Networking with partners beyond academia, peers and alumni

Some participants report developing industry-facing networks through LinkedIn, internships, and employer

events, particularly when they see industry ties as important for professional credibility or future career authenticity. Peer networks are seen to play a role in providing emotional support, a sense of community and long-term career value. Alumni events serve a dual purpose, functioning as learning environments and as a means to build relationships with peers and professionals.

"I'm looking to become more industry focused. As well as working in academia I do want to have an industry focus where I'm connecting with people who work more practically with topics and subjects that I'll be researching on, just to give it that greater sense of authenticity and depth."

PGR, T25, R2

For stakeholders in positions that can facilitate these forms of networking, the benefits are clear. One described their approach as providing PGRs with as much knowledge and experience as possible on the different career paths open to them, through a balance of approaches;

"We do that through both providing that kind of active training, but also through facilitating networks, connections, providing them with access to employers, academics in the relevant fields. But yeah, it's that combination of knowledge of what's available to them because we find that many people, they start a PhD and the only real career path that they think

of or are aware of is go further into academia, become a postdoc. They may not actually really know what else is open to them. But also, it's not just about giving them that knowledge of what's out there. It's also giving them the connections and the experience and allowing them to build their skills in a sort of facilitated way."

Programme Manager, Design, Deliver, Enable, Advocate, STEM, N/A

This form of support meets a need articulated by PGRs in the study. Participants referenced how learning experiences gained through networking helped to identify and understand different career pathways, by facilitating exposure to a range of roles and alumni experiences. In addition, networks assist with career navigation and opportunity creation. This may often be purposeful for PGRs aware that academia frequently operates through informal channels built on personal relationships and recommendations.

This dynamic shapes how they use networks to build skills in communication, public engagement and career relevant language. For others, it is about building relationships that lead to what one stakeholder described as "potentially serendipitous opportunities" (Group Leader and Principal Investigator, Design, Informal, STEM, A)

Across the data, networking is described as a central mechanism through which career progression becomes possible. Participants recognise that contacts, relationships, and visibility matter as much as expertise. As one PGR puts it "if you are able to network, you are able to grab opportunities early" (PGR, T35, R1). Another reflected how their perceptions had been changed by experience;

"I think that I thought when I got into academia with a PhD [it] would be incredibly egalitarian. It's not, it's who you know. And so it's making my face known, even when that might not be the best use of my time on that day. Because those are the people that'll give me jobs afterwards"

PGR, T22, R2

Communities

Aligned to the impact of networks, PGR respondents noted the value of peer communities, in their own departments, institutions, and beyond. While some expressed the value of communities formed through formal cohorts, others highlighted that conferences and career workshops within their university provided valuable opportunities to meet

peers. One noted that such interactions meant that colleagues were "like family" now (PGR, T10, R1), while another PGR noted;

"Those little pops of acceptance or sharing, finding people who are doing something that runs in parallel to you, (...) kind of finding a kindred spirit to study with, that's really nice."

PGR, T23, R2

Peer engagement enabled more than moral support. PGRs framed peer communities as opportunities to learn from the experience of others, with the potential to open up new ideas and career options.

"Also speaking to and having this community of PGRs belonging to different groups. Because when there is an informal networking, or like a pub night or whatever, and you just talk and hear other people's ideas. Like one of my friends from there, he is thinking of doing like a graduate scheme, and which I had thought of is only for undergrads, but actually it is open for postgrads, and I thought maybe that could be something I could do, and then I looked into it. So I think also that sort of peer element is also there in this space."

PGR, T21, R2

Stakeholders acknowledged the potential of communities to improve how career development is experienced. One explained how they have seen informal cohorts develop and provide

the same benefits as formal cohorts established through DTPs. They reflected that those unable to access such peer interaction may miss out.

"We have like pseudo cohorts here sometimes because they put a lot of the first year PhD students in the same office. Even though they don't have strict activities together, they kind of have a cohort. I also have people that are doing things like [Doctoral Training Programme] postgraduate training and they have actual cohorts. I also have students... International students or mature students usually don't get put in the office with all the first years that they have, so they're completely isolated. I feel like the people in the cohorts start thinking about jobs earlier than the ones that are independent."

Specialist Technician and Research Assistant, Informal, STEM, A

Given these perceived benefits, stakeholders were aware of the need to introduce opportunities for peer interaction in structured ways that promote equitable access. However, they acknowledged that PGRs were less likely to engage with peer-led, informal activity if the benefit is unclear or they feel uncomfortable in such situations. As noted previously, perceived value is a factor shaping PGRs' decisions on time prioritisation. By formalising cohorts or peer networking groups, PGRs may be encouraged to engage and reap the potential benefits.

“I guess what we’re not necessarily doing is having opportunities to make sure that every single PGR feels part of a group. (...) I like the cohort approach. I think that will help because there will always be individuals that seek this out and they’ll find it brilliant. And we have that for them to do. But it would be nice to pull on the people that maybe don’t know to think of this or don’t realise they can access this.”

Careers Advisor for Researchers, Design, STEM, A

Furthermore, stakeholders were clear on the value of peer communities for building confidence and skills linked to career development.

“It’s extremely important to make sure the confidence is built, but also that students can talk with one another about what’s missing, but also relying on each other where there are some gaps. For example, you might have a PhD student that is extremely good in communication, and I tend to harvest the talents of PhD students to support maybe students who lack a little bit more in certain skills and vice versa.”

Professor and Head of Department, Informal, SHAPE, A

PGRs learning from and finding inspiration in the experiences of peers and alumni presents an extension of the benefits derived from community engagement. Stakeholders point out the value of alumni case studies and panels, during which former PGRs share their career trajectories. The practice

of embedding access to role models who have faced the same challenges empowers PGRs to explore paths previously unconsidered.

“Role models, stories, seeing what else they can do, seeing people being successful (...) in a variety of settings so they know what it entails, so they know how to set themselves up for that.”

Careers Advisor for Researchers, Design, STEM, A

Mentoring and coaching

Mentoring was identified as a key career development tool by PGRs and stakeholders, providing real insights into how others have **“navigated similar transitions, and skill diversification”** (Careers Consultant (Researchers), Design, STEM, A). Indeed, while some PGRs noted the impact which mentorship has already had on their journey in providing not just professional guidance but also emotional support (mirroring the findings of Wang *et al.* 2025), others described the perceived value of mentoring as an option they wished to pursue.

“To help me achieve my future goals, I think as you say, we need some tailored support. Some kind of mentorship as well outside of just the people that you’re in contact with regularly, because while they may have a wealth of knowledge, it’s still quite specific. I think having an outside or external mentor would provide you with additional support to help you think outside of the box, so to speak.”

PGR, T19, R1

One PGR noted that mentoring was a potential “game changer” stating that **“if you stand on the shoulders of giants, and in this case mentors, you see further”** (PGR, T16, R2). Stakeholders agreed on the benefit of mentoring but acknowledged the need for practical advice on how to **“optimise your mentoring relationships”** (Research Fellow, Design, STEM, A).

Similarly, stakeholders recognised the opportunities that coaching presents but noted that to have maximum impact, both coaching and mentoring need to be embedded within the PhD process. Embedding small group coaching, as suggested by one stakeholder, has the potential to provide an objective developmental space which encourages PGRs to consider reflective questions. This could help them shape their own career direction rather than defaulting to a model of success based solely on their supervisor’s pathway.

Exposure to sectors beyond academia

PGRs indicated that they would benefit from career development which provides more insight into opportunities beyond HEIs (see figure 3). Their responses describe the value of opportunities which offer practical insights. These include session that help PGRs to translate academic research skills to non-academic settings, and more structured opportunities such as placements. These forms of development are seen as pushing PGRs

to their limits and providing **“a whole lot of experience that you never thought was possible”** (PGR, T35, R1)

“Transferable skills are equally helpful as well. Then like holistic exposure to non-academic professionals, which broadens my understanding of possibilities beyond traditional academic roles.”

PGR, T34, R2

Stakeholders highlighted the benefits of structured, embedded exposure to industry within CDT and DTP models of doctoral study.

“There’s some PGRs, they are in specific programs like [Doctoral Training Programme], PGR Training. Their courses are part of those programs. Those programs, I think, do a better job because they have mandatory industry placements and there has to be... I know that with [Doctoral Training Programme] (...) That industry placement needs to be unrelated to your research.”

Specialist Technician and Research Assistant, Informal, STEM, A

Stakeholders who work in industry espoused how placements both encourage PGRs to see their potential to thrive in previously unconsidered sectors and provide real opportunities for future

careers. One stakeholder reflected on the experience of a PGR who completed their industry placement with not only a broader perspective on the options available to them, but an open offer to return to a future role. Though the PGR had never previously considered a career beyond academia before, the experience and feedback he received **“made him realise what else was out there”** (Water Resources Modelling Lead, Informal, Enable, Advocate, STEM, N/A). Parallel experiences shared by PGRs provide examples of how structured partnerships with non-academic employers develop their confidence in alternative routes to career success.

Additionally, stakeholders raised the importance of making the value of PhDs visible beyond academia. One stakeholder noted the importance of educating employers on the value social science graduates can bring to their business.

“But for those of us in the social sciences then yeah, I think we’ve got to work with industry more and educate industry about the value of what a PhD researcher brings in terms of skills and knowledge and expertise and experience.”

Senior Lecturer in Music Industries,
Design, Informal, Enable, Advocate,
SHAPE, A

Similarly, a PGR participant described their experience of working alongside government employees and academics in a national laboratory, noting that each group seemed to dismiss and have a lack awareness of the what the other did. These attitudes, perhaps based on stereotypical perceptions, can shape what PGRs view as ‘typical’ careers for individuals from their disciplinary background. Strengthening non-HE employers’ awareness of the value that PhD graduates offer, may encourage increased collaboration. In turn, such collaboration may motivate PGRs to explore a broader range of career pathways and participate more fully in career development opportunities.

Empowerment and purposeful development

Within the data, those PGRs who feel empowered to take ownership of their career development display greater optimism about their future careers. This seems to stem from a realisation that they can control their experience, as one noted **“you are your own project manager, and you also are also your own agent”** (PGR, T13, R1). Another PGR respondent shared that empowerment, while supported by career development opportunities, ultimately required an internal drive to succeed.

“You obviously need support and you need help with various things and you’re always learning, but yes, I think that I can help myself and that’s an amazing position to be in and that comes from the confidence that you have in doing so. So you think yes, I can go forward and I can work on this from here. And I have obviously attended all the various events and conferences, or workshops that they give us, but yes, I think it really does come from within, yeah, in the empowerment sense.”

PGR, T19, R1

For some PGRs, empowerment was contingent on a clear understanding of the options at their disposal, which had implications for the frames of reference within which institutions situate career development opportunities.

“What would help me feel more empowered right now? Hmm, that would be greater transparency around career paths and also increased exposure to diverse professional trajectories, a structured apprenticeship, and a clearer institutional recognition of non-academic career ambitions, yeah.”

PGR, T34, R2

Indeed, empowered learners are better able to engage in purposeful development that supports their aspirations. One stakeholder reflected that **“students are immensely clever, they’re strategic. They are only going to do something if it is going to be beneficial”** (Associate Professor and Head of Researcher Development, Design, Deliver, Informal, SHAPE, A).

From the PGR perspective, a strategic focus on purposeful career development required a level of reflection and self-awareness, factors that were developed through the process of doctoral study.

“I’m quite driven when it comes to career, especially. I can be quite hard on myself and thinking I should have reached this particular goal by this point or developed a particular skill set ... but all of that has been sort of challenged in a good way when I started here, because like you said, there is so much unlearning and relearning things that I’ve always done.”

PGR, T6, R1

Throughout, stakeholders acknowledged that career development must be embedded and its purpose and value clearly articulated to PGRs. This would help to foreground the importance and impact of development and overcome barrier to engagement, including issues such as prioritisation, supervisor permission and access discussed in earlier sections.

PGRs and stakeholders have some clear ideas around key opportunities to enhance career development provision, such as strengthening links with industry and partners beyond HE, leaning into communities, and offering more practical skills development.

As highlighted earlier in the report, initiatives suggested here are already being delivered across multiple institutions, yet stakeholders continue to report low levels of engagement. This pattern suggests that the challenge is not solely about the availability or quality of provision, but points to deeper issues related to PGR awareness, attitudes and barriers to engagement. Therefore, it is important that these suggestions are understood within this broader context.

Stakeholder perspectives indicate that career development needs to be more systematically embedded throughout the PhD journey rather than positioned as an optional set of activities. This emphasis on embedding career development emerges as one of the most significant takeaways from this section.

Associated recommendations

Recommendation 4.

Reflect the plurality and individuality of PGR experiences and outcomes within career development

4



Auxiliary themes

Throughout the review of current literature and existing PGR career development practice in the UK, common themes surfaced which were anticipated to arise in the current study. While some of these themes were reflected in the data gathered and have been considered in detail, others either received little prominence in responses or were not raised by participants.

This is to be expected given the inherent limitations of the sample and therefore its inability to represent the experiences of all PGRs and stakeholders within the UK. However, despite not emerging as a focus for the current study, the themes below nonetheless shape PGRs' experiences of career development and are noted here as potential areas for future research.

Disability

Disability was infrequently discussed and was primarily raised in stakeholder transcripts. References (combining the terms disability, disabled, neurodiverse and neurodivergent) occurred in 17% (n.6) of the stakeholder transcripts and in only 10% (n.4) of the PGR transcripts (one of which related to interest in disability research). Of the 161 PGRs engaged in the study, population estimates suggest that approximately 29–39 may have had a disability (HESA, 2023/2024b; Stiebahl *et al.*, 2025), (see [appendix 1](#) for details).

Intersectionality

Despite literature highlighting PGR intersectionality as an important and under researched factor in shaping engagement with career development, this study yielded little direct evidence, despite efforts to capture diverse PGR lived experiences.

Mental health and resilience

Mental health was rarely discussed, appearing in only 10% (n.4) of the PGR transcripts. One PGR described completing a PhD with good mental health and resilience as a success, implying this is not assumed.

Imposter feelings

Imposter feelings or imposter syndrome arose in 40% (n.16) of the SHLR PGR transcripts – counting the terms imposter or imposter syndrome combined.

Emotional support networks

Several PGRs highlighted the importance of emotional support networks, including family and close friends, in supporting their perception of control of their future career.

Luck as a factor

References to luck in relation to career development, success, or PhD completion appeared in 63% (n.25) of SHLR PGR transcripts, based on mentions of luck, lucky, lucked out, and fortunate. Participants often framed supportive supervision as a matter of luck, suggesting limited consideration of career development support in supervisor selection and/or awareness of peers with less supportive supervisors.

Career development expectations at recruitment

While stakeholders emphasised the benefit of embedding career development from the start of the PhD, none suggested it should begin at recruitment. This omission regarding transparency around post-PhD career pathways, or a shared understanding of PhD success between prospective PGRs, potential supervisors and the HEI, may reflect siloed responsibilities for UG and PGR facing staff.

If the thesis is fit-for-purpose

Two stakeholders questioned whether the thesis remains a fit for purpose primary PhD outcome, noting it is often misconstrued as the endpoint of PGR development. They argued that an overemphasis on thesis completion can limit PGRs' skills development, recognition and articulation, leaving them poorly equipped for their next career step.

Disparity between career development demand and engagement

A stakeholder noted some contradiction between the demand for PGR career development and the subsequent attendance level.

Teaching opportunities

Teaching and teach were mentioned in 85% (n.34) of the SHLR PGR transcripts, mirroring the findings from PRES reports (Advance HE and Neves, 2025). As such, PGRs' desire for teaching experience was not discussed further within the current study.

Summary



As the purpose of the modern PhD has broadened to equip individuals to participate across all sectors of the economy, the importance of career development has grown. In part, this breadth of purpose arises from a desire to realise the economic benefit of PGRs to the wider economy. However, it is also an increasing necessity, as the number of PhD graduates outstrips the availability of academic positions. Whilst this broadening of career outcomes has been welcomed by successive UK governments and supported by research funders, not all participants in the system may be aware of or agree with this shift. Despite careers beyond academia being the norm for the majority of PGRs, narratives that frame such outcomes as 'alternative' persist.

This is understandable given the limited data on doctoral career aspirations, trajectories and destinations. The generally poor visibility of PhD outcomes beyond academia gives a skewed impression of the likelihood of securing an academic role. Furthermore, ambiguity in the purpose and outcome of the PhD is highlighted throughout the literature. This ambiguity impacts on the way in which the career motivations, expectations, skills and the potential of PGRs are understood and valued, by employers, peers and PGRs themselves. PGRs develop and socialise their primary professional identity as a researcher, prioritising the accrual of esteem within their research niche. This increased specificity does not necessarily aid PGRs' ability to identify and articulate their transferable skills and aptitudes across sectors.

A persistent culture within HEI research environments positions academia as the premier career destination. This, coupled with the perceived importance of demonstrating loyalty to both the research area and the supervisor or group, can leave PGRs feeling unable to openly express interest in career development for roles beyond academia.

The UK PGR population is diverse in terms of personal characteristics and career aspirations. There is a plurality of life and work experiences, working locations and working patterns. Each of these factors can affect equitable access to career development, with those negatively affected including PGRs with protected characteristics; international candidates; those from lower socio-economic backgrounds; those who study part-time and PhDs who are not part of doctoral cohort.

To address these issues, previous recommendations within the literature have emphasised the need to value all career pathways equally and embed career development within the doctoral process. They have stressed the need to build cross-sector networks and experiential learning opportunities for PGRs and strengthen supervisor support for career development. In addition, the benefits of enhanced data on PGR career destinations, and efforts to support PGRs' personal agency and development as professionals, have been highlighted. Others have recommended that the purpose and structure of the doctorate be reformed to ensure PGRs are career ready post-PhD.

These issues are live within the sector and reflected within the review of current provision, platforms and resources that aim to support PGR career development. Common trends were identified that demonstrate emerging responses:

- **Personalisation** – tools and support designed to empower PGR self-reflection and encourage self-directed learning
- **Embedding PGR career development** – alignment with related services such as careers, career networks and wellbeing support
- **Credit-bearing career development** – increasing the visibility and perceived importance of career development for PGRs through structured programmes
- **Encouragement of career fluidity** – greater emphasis on careers beyond academia
- **Innovation led by CDTs and DTPs** – collaborative, multi-HEI and cross-sector opportunities for PGRs to develop skills beyond academia

The current study found that attitudes towards career development vary significantly. While some PGRs viewed successful doctorate completion as sufficient preparation for future careers, others perceived career development as irrelevant, poorly timed, or difficult to prioritise alongside research demands. As a result, some PGRs delay engagement with career development until it becomes 'critical', towards the end of their studies. Survey data nonetheless indicates a strong interest among PGRs in enhanced opportunities for industry exposure and information about non-academic sectors.

Across both stakeholders and PGRs, a central finding was the substantial variation in how career development is understood, including what activities it encompasses and how it should be prioritised during doctoral study. This variation translates into uneven career development provision in practice and contributes to diverse conceptualisations of career success. These, in turn, shape PGRs' willingness to navigate and engage with career development opportunities.

At the outset of the PhD, a lack of clarity concerning career development expectations often results in related activities being deprioritised. Barriers to engagement include time constraints, competing priorities, uncertainty about the relevance of career development

to evolving professional identities and limited awareness of available provision. Disciplinary norms that do not encourage engagement beyond academia, variable levels of supervisory support and individual personal circumstances place additional barriers to engagement.

Engagement with career development is further shaped by both structural and personal factors. International PGRs face additional pressures related to visa constraints, adaptation to new academic and cultural contexts, distance from emotional support networks and financial concerns, all of which influence their participation in career development activities. Throughout the study, PGRs and stakeholders highlight the importance of peer networks and community, underscoring the role of informal support and shared experiences in navigating career decision-making.

The study identifies several opportunities to enhance PGR career development in the UK, including greater emphasis on networking across disciplines and sectors, stronger PGR communities, access to mentoring and coaching, increased exposure to careers beyond academia, and approaches that empower PGRs to take an active role in shaping their own career development. These findings have informed the interconnected recommendations set out below.



Proposed recommendations

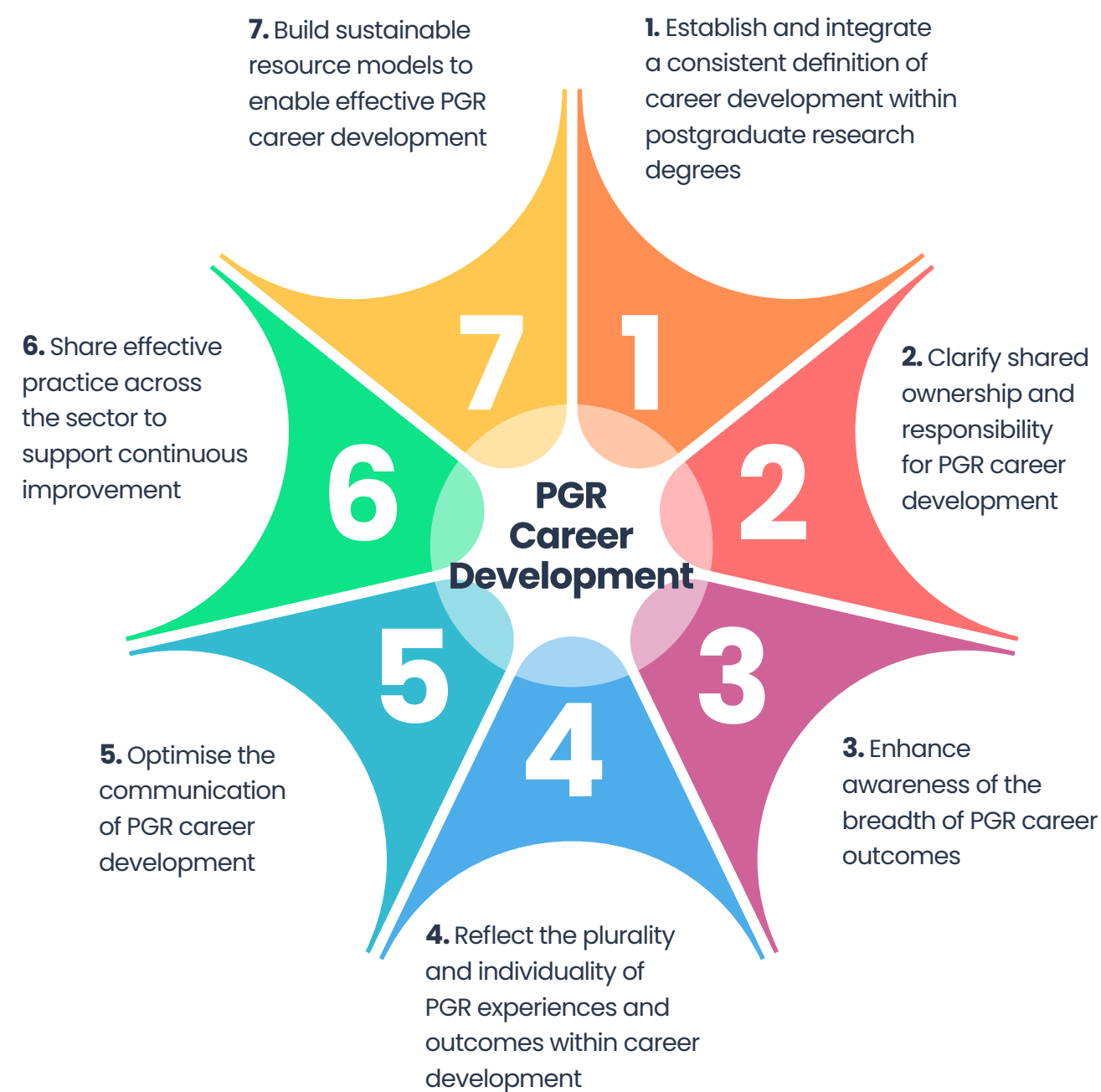
- 138 1. Establish and integrate a consistent definition of career ...
- 142 2. Clarify shared ownership and responsibility for PGR career...
- 146 3. Enhance awareness of the breadth of PGR career outcomes
- 150 4. Reflect the plurality and individuality of PGR experiences and...
- 154 5. Optimise the communication of PGR career development..
- 158 6. Share effective practice across the sector to support continuous...
- 162 7. Build sustainable resource models to enable effective PGR career...



The following recommendations are directly informed by the experiences and insights of the PGRs and stakeholders who participated in this study. They are underpinned by the findings, effective-practice examples and suggestions for enhancement drawn from the reviews of current literature and existing practice across the sector.

Recommendations are presented as catalysts for further conversation and collaboration, intended to contribute to the sector's ongoing efforts to enhance PGR career development, outcomes and research culture

Each recommendation is briefly outlined, with implications for stakeholders across the sector discussed in more detail. Links to the recommendations drawn from the literature are included.



1

1. Establish and integrate a consistent definition of career development within postgraduate research degrees

Establishing and integrating a consistent definition of career development will act as a key enabler to the ongoing enhancement of support for PGRs.

It must clearly articulate the purpose, relevance and value of career development across the disciplines, while reflecting the flexibility and variety of practices that support career success.

This definition should create a shared foundation from which stakeholders can design, develop, deliver and evaluate the impact of their provision.

The agreed definition should foreground the need for inclusive career development that responds to the diversity of the PGR population.

Continuously embedding career development that aligns with this shared definition, as a fundamental expectation at each stage of doctoral study, will positively impact its accessibility and perceived importance, and will enhance PGR engagement.

Links to recommendation/s from literature:

Shift the culture of doctoral education to value all career pathways; Embed career development throughout the doctorate; Build networks and partnerships across sectors; Reform the structure of and purpose of the doctorate.

Commentary

Establishing and embedding a shared definition of career development

The formulation of a shared definition of PGR career development requires partnership working at a national level across stakeholder groups. Funders, HEIs, PGRs and representatives from a broad range of employers should collectively feed into the definition to ensure it meets current and future needs. Integration requires all parties to take ownership of the definition within their spheres of influence.

For instance, any organisation running a funding call can articulate expectations regarding career development within funding calls, to those in receipt of funding, to institutions and to PGRs themselves. These expectations should address HEI concerns about PGR completion metrics and provide reassurance that career development will not negatively impact on research quality or outputs. Similarly, institutions can utilise a clear definition of career development to assure parity of access to consistent, inclusive support across disciplinary boundaries regardless of funder, location or mode of study.

For employers and those at the practice level, a common understanding of the processes, activities and opportunities that constitute PGR career development will enable greater collaboration. It will support the embedding of career development as an expected feature of all PhD programmes, encouraging PGRs, supervisors and external partners to recognise the value of career development integrated within doctoral study. Supervisory teams should be supported to effectively guide and signpost to opportunities for career development that recognise career pathways beyond academia as legitimate.

Career development defined to complement, but be distinct to, research training should be embedded and promoted at each stage of the PhD, from recruitment through to completion. It should be defined as an integral part of the PhD process and not a secondary activity. It should reflect the diversity of the PGR community, their career aspirations and multiple pathways to success within and beyond academia. Ultimately, the quality of the training should always be the primary focus because the student and their potential is the main output.

Critically, a shared and integrated definition of career development should empower PGRs to direct their own professional learning and identity, by providing opportunities to build confidence, build networks and learn from others. Narratives, examples and case studies should be woven throughout HE research culture, highlighting the importance of engaging with career development.

Defining and evidencing success

An established definition of PGR career development should articulate the overall value of the PhD to students, institutions and the wider knowledge economy. To this end, a common definition presents the basis for discussions on enhanced data collection around PGR career aspirations and outcomes.

Proposals to incorporate PGRs into potential changes to the GO Survey (Hancock & Wakeling 2025), offer one route through which this might be pursued.

The creation of an evidence base on career outcomes and success offers the chance to create a virtuous circle, in which the impact of clearly defined career development underpins the integration of such provision within the expectations and experience of doctoral study.

1

2

2. Clarify shared ownership and responsibility for PGR career development

The provision of effective career development for PGRs is a shared endeavour, which requires stakeholders at all levels to take responsibility for their part in the process.

Where responsibility for career development is unclear, its impact is lessened. Recognition of the individual and collective responsibilities that underpin effective career development provides an opportunity to shift the narrative and foreground its value to PGRs, the sector and the wider knowledge economy.

It is critical that PGRs are empowered to own their career development, but this is contingent. It is enabled by those with existing power and authority owning their role in the process, whether providing time, permission, encouraging engagement, providing expertise or ensuring appropriate resource is available.

Clear ownership of career development within institutional contexts is key to the effective coordination, communication and delivery of opportunities to PGRs. It creates an environment in which complementary expertise is effectively channelled, in which capacity is enabled and in which the output is more than the sum of its parts.

Links to recommendation/s from literature:

Support professional identity formation and personal agency; Strengthen supervisor support and specialist career provision

Commentary

Collective responsibility for career development

The allocation and recognition of responsibilities for career development, at all levels, is key to its impact on PGRs' experiences and future success.

In part, this rests on all stakeholders 'owning the message' and ensuring the consistent communication of the inherent value of PGR career development. This active investment in the value of the process and outcomes of career development is key to embedding provision throughout the sector, as an expected feature of doctoral study across funding routes, institutions and disciplines.

At the national level, it requires funders and sector leaders to maintain and promote a focus on career development, setting clear expectations within funding calls, celebrating examples of effective practice and foregrounding both the potential and impact of PhD graduates across the wider economy.

This same focus is required at the institutional level. HEIs should consider establishing high level strategic objectives for PGR career development and outcomes, integrated within planning processes, with named leads, appropriate governance and structured partnerships to drive collective responsibility. This would clarify expectations and enable effective evaluation and reporting, in turn supporting continuous improvement and the identification of effective practice. The latter provides the basis for successful career development to be recognised and celebrated, perhaps linked to internal awards and annual review processes that encourage further enhancements.

It is critical that PGRs take ownership of their own professional development, but this is contingent on the environment and culture they inhabit and the norms to which they are socialised. How PGRs' interpret success, perceive career pathways and prioritise their attention and focus is shaped by the narratives that surround them. In addition, the networks, communities and experiences they are exposed to, through peers, alumni and links to sectors beyond academia, form their perception of career development and success.

Supervisors play a key role, influencing the time, motivation and permission required to engage in career development and network with others. Supervisory teams should be supported to understand their role in signposting to career development opportunities, helping PGRs to engage without becoming ersatz career advisors or gatekeepers of PGRs' time. This aspect of supervision should be factored into internal recognition processes to further encourage good practice. Furthermore, institutions should consider how career development can be built into DNA processes and how supervisory networks can be supplemented through parallel approaches such as external mentors, alumni schemes and support for students experiencing supervisory breakdown. Such approaches help to ensure that no PGR is dependent on a single relationship for visibility, advocacy or career support, while preserving the positive impact that engaged supervisors can have on students' confidence and career success.

Coordination enables enhanced impact

Consistent coordination of career development at the sector, institution and practice level offers opportunities to raise the benchmark and enhance access to provision. Collaborative approaches that draw on a shared sense of responsibility can help to address inconsistent experiences and target career development in line with strategic priorities on enhancing skills and access to talent, as set out in the 2025 Industrial Strategy.

Within HEIs, clear responsibility for career development will directly support coordination. While PGRs and practitioners will necessarily call on expertise from across disciplinary boundaries and service teams, defined ownership of career development will allow for greater efficiencies to be realised. It will provide a mechanism for the effective organisation, delivery and communication of development, whilst supporting the evaluation of impact and return on investment. Clear ownership within institutions will support resource allocation and promote inclusive practices that ensure equality of opportunity for all PGRs. These practices should include activities that support PGRs to drive their own development, through goal setting, exposure to other workplace environments and reflexive skills that help them recognise their strengths and career options.

2

3

3. Enhance awareness of the breadth of PGR career outcomes

At the heart of both the definition and coordination of PGR career development must sit a recognition of the breadth of career pathways doctoral graduates can pursue.

Raising awareness of this multiplicity of career outcomes at all levels of practice and responsibility is key to releasing the potential of PGRs through effective, accessible development.

To this end, career development should be informed by the expertise of stakeholders from across HE and the wider knowledge economy. It should enable PGRs to engage in informed career planning, challenging assumptions and preconceptions and opening new routes to success beyond academia.

Within this, networking with peers, alumni, cross-sector stakeholders and others within academia and beyond, should be embedded throughout the PhD as a key opportunity open to all PGRs.

Links to recommendation/s from literature:

Provide experiential and cross sector learning opportunities; Build networks and partnerships across sectors; Improve labour market information and data transparency; Strengthen supervisor support and specialist career provision.

Commentary

Narrative shifts

Raising awareness of the breadth of career outcomes that PGRs can and should pursue requires an ongoing narrative shift at all levels of practice. Funders, Government and representatives across the sector should seek to influence discourse that explicitly recognises and promotes the value that doctoral graduates, from all disciplinary backgrounds, contribute to the wider knowledge economy. At a research culture level, expectations and definitions of success should reflect and showcase the diverse, equally legitimate routes that PGRs take on completion of their studies. Comprehensive data (see recommendation 1) on PGR career outcomes should be widely disseminated to demonstrate such routes, including to prospective PGRs.

Such positive narratives can help address existing assumptions that position an academic career as the goal, with any other outcome cast as an 'alternative career'. As described in this report, many PGRs expect to move into academic careers post-PhD, despite the lack of opportunities to do so. Indeed, these expectations mean that PGRs may be reluctant to explore or experience opportunities within other sectors. Increasing the labour market knowledge of PGRs, whilst also helping them to recognise the options their skills and expertise present, is key to challenging these preconceptions.

Narratives, role models and case studies that highlight the societal impact of doctoral expertise offer routes forward. PGRs within the current study often describe career success in terms of contributing to improvements in people's lives. Demonstrating how impact can be achieved in multiple career trajectories will help PGRs to see themselves in roles that extend beyond the single track of academic employment.

Networks and access to experience

Given supervisors strong influence on students' access to networks, institutions should explicitly define and support the supervisory role in enabling, not restricting, network-building. Clear expectations should reinforce that supervisors are partly responsible for facilitating introductions, encouraging career exploration and supporting attendance at training or networking events. As noted under recommendation 2, parallel mechanisms, including career mentoring and coaching, should be considered to ensure PGRs are not solely reliant on a single relationship for advocacy and support as they seek to build relationships. Supervisor training and guidance should be enhanced as necessary, empowering them to confidently facilitate introductions and encourage their students' career exploration.

At an institutional level, HEIs should collect and showcase PGR alumni career journeys, using this cohort to inspire doctoral students. A breadth of PGR career destinations should be embedded within career development, utilising alumni events, panels and case studies to inspire and motivate PGRs for a range of potential futures. Where possible, PGRs should be supported to experience workplace cultures beyond HE, whether through placements, internships or less formal interactions. Such experiences will support PGRs to build their confidence, make connections and think more broadly about their future.



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4. Reflect the plurality and individuality of PGR experiences and outcomes within career development

There is no single type of PhD student or experience. The PGR population reflects a diversity of lived experiences, personal circumstances, characteristics and aspirations.

In parallel, PGRs study across multiple modes, reflecting disciplinary norms, full or part-time status, geographical location and the demands of their research practice.

This diversity is reflected in the skills and knowledge garnered through the doctoral process and the opportunities for success across multiple career pathways that they provide.

Each of these factors shapes how PGRs approach, interpret and engage with career development.

In response, the design and delivery of PGR career development must reflect this plurality of experiences, circumstances and aspirations. PGRs must be able to see themselves and their needs represented in the opportunities made available to them.

PGR career development should be situated as a means of supporting PGRs to recognise themselves as professionals, able to succeed in a range of professional contexts both within and beyond HE.

Links to recommendation/s from literature:

Embed career development throughout the doctorate

Commentary

Diverse communities and outcomes

At the national level, narratives that support equitable access and seek to encourage talented individuals into the research ecosystem, irrespective of background, are key to the ongoing strength of the sector. As such, stakeholders should continue to foreground expectations around inclusive practices that reflect and respond to the diversity of the PGR population. Within this, recognition of the role of career development, as a mechanism for encouraging PGRs to succeed across sectors, is critical. For instance, Government, funders and sector leaders can encourage investment into PGR development from across the knowledge economy. This will support PGRs to engage in experiential learning through industry placements and internships. In turn, such activities raise the visibility of diverse PhD graduates and their inherent value as future employees.

Examples of good practice exist and can be built upon. Collaborative funded projects, such as Developing Business-Aware Academics, aim to bring together those working in a variety of sectors to realise the potential of the UK's research and innovation talent. Similarly, the NCUB works closely with the government and UKRI to champion collaborations between universities and organisations.

Given the diversity of the PGR community, stakeholders across the sector should avoid reinforcing disciplinary stereotypes that limit, rather than expand, PGRs' aspirations and the outcomes they see as possible (see recommendation 3). Career development should highlight outcomes that counter persistent disciplinary narratives regarding STEM versus SHAPE career success. Similarly, development activities and resources should use inclusive language that reflects the variety of individual characteristics and circumstances that PGRs bring (see "D2: BaFL Business as a Foreign Language" (Nolan and Weatherston, 2015) for some suggestions).

Development through responsive design

HEIs should, where possible, ensure that PGR career development incorporates contributions from a diverse range of individuals. Actively engaging with and addressing the specific concerns and challenges experienced by different groups of PGRs can help counter the persistent narrative of academia as a purely meritocratic environment. This can, in turn, foster a more equitable and inclusive culture.

Institutions should promote a strong sense of community amongst PGRs, across all stages and disciplines. For instance, universities could embed structured, low-barrier networking opportunities into the everyday PhD experience, to help PGRs build relationships across academic, interdisciplinary, and industry contexts. Practical measures can help, such as centralising information about upcoming events, offering support for conference attendance and creating regular opportunities to meet alumni and industry partners. Such measures ensure students can access meaningful professional connections regardless of their confidence levels or departmental culture.

PGR students gain confidence and insight through organised environments rather than unstructured social settings. As such, networking should be intentionally integrated into seminars, training sessions, conferences, and alumni events, with facilitated introductions and guided interaction to reduce anxiety and improve inclusion.

At the practice level, career development should utilise multiple modes and formats. Scheduled delivery should reflect the time demands, responsibilities and personal circumstances of the diverse PGR community, varying in duration, intensity, sequencing and location within the academic calendar. Initiatives tailored to the needs of mature and professionally experienced PGRs should be implemented. This will increase the visibility of the cohort and reinforce the principle that career development is a continuous, context-relevant process.

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5. Optimise the communication of PGR career development

The impact of career development is contingent on how effectively opportunities are communicated.

How we collectively talk about career development matters. Positive narratives regarding the value and impact of career development must be consistent at each level.

Amidst the noise and competing priorities of PhD life, career development should be understood as a purposeful, integral aspect of the doctoral experience.

Effective communication is not only critical to increasing awareness and engagement with career development. It is a key skill that PGRs need, to unlock the value of development opportunities irrespective of career aspirations.

Links to recommendation/s from literature:

Improve labour market information and data transparency

Commentary

Consistent communication of value

The value of consistently defined career development must be communicated equally consistently. At the national level, discourses surrounding the importance of higher degrees to the knowledge economy should articulate the inherent value of career development within the PhD. Funders and parallel agencies should integrate clear messaging regarding expectations of HEIs and those in receipt of funding. National initiatives and projects that foreground opportunities for PGRs to broaden their networks, develop their skills and enhance their employability should be amplified through available channels.

In parallel, stakeholders should utilise all available opportunities to reiterate the diverse range of experiences and careers that graduates pursue post-PhD (see recommendation 3). Case studies, exemplars and stories of success provide a means of shaping the narrative and establishing career development as the norm within doctoral study. Whilst such messaging is needed at each level, the influence of funding agencies and Government bodies provides a significant means to raise the profile and perception of career development. This is particularly important in communications beyond the HE sector, which can encourage participation from employers who may not have previously engaged with PGRs.

At a sector level, communication with the PGR community should be a focus for collaborative activity. Approaches that promote cohesive engagement with PGRs irrespective of institution or discipline, may support efficient means of establishing a benchmark for career development that promotes equality of access to support. Solutions might include shared development hubs or calendars, and the amplification of opportunities presented by bodies such as UKCGE. Effectively supporting and developing the career outcomes of PGRs through shared initiatives presents an opportunity for the sector to evidence its contribution to emerging Government priorities and the wider economy.

Coordinated communication strategies

For those providing career development support to PGRs within institutions, timing and relevance are key to effective communication. Clear, focused and coordinated communication strategies will help to avoid overwhelming students and opportunities being lost in the background noise of busy PhDs. Ensuring that messaging reflects the PGR audience's diversity, expectations, language and needs is critical. Investment in tools that draw together a range of channels for engagement with PGRs, including those that are peer and community based, is essential. One approach is to create a 'personalised at scale' model (Gilworth and Townsley, 2024, p.52). By directly working with PGRs to define 'PGR personas', students can be helped to navigate career development suited to each stage of study. Similarly, establishing development networks owned and led by PGRs, which extend across disciplinary boundaries and provide PGRs a direct voice in the planning and delivery of development, can provide a key method for reaching the less engaged.

Internal teams should embed the skills of effective communication within career development for PGRs. This is a core skill whatever the career outcome and its ongoing development throughout the PhD will help PGRs to maximise the impact of opportunities to work with others. Networking and engagement within and beyond the university context is only of benefit if the opportunity can be effectively utilised. Ultimately, coordinated communication strategies underpin effective engagement and help ensure a return on the investment in career development.

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6. Share effective practice across the sector to support continuous improvement

Effective career development is not static. Stakeholders across the sector should collaborate to ensure the continuous improvement of career development provision that reflects the evolving needs of PGRs.

Mechanisms to identify, celebrate and share effective career development offer an opportunity to enhance outcomes for PGRs across institutional and disciplinary boundaries.

Opportunities for collaboration and knowledge sharing between organisations, stakeholders and practitioners should be promoted and incentivised.

Such approaches will help to ensure that the diversity of the PGR population is recognised and effectively supported in ways that break down barriers to access and engagement.

Links to recommendation/s from literature:

Build networks and partnerships across sectors; Strengthen supervisor support and specialist career provision

Commentary

Foster collaboration

Effective career development must adapt to the changing needs of PGRs, the evolving requirements of employers and emerging practices that enable new forms of development, including digital transformation and AI.

To effectively respond and support continuous improvement, the provision of career development must therefore draw on the collective expertise, wisdom and experience of stakeholders from across the sector and beyond. However, in the current context, opportunities for collaboration and knowledge sharing are not being maximised and, as a result, PGRs experience inconsistent access to career development.

Building on the consistent definitions and shared sense of ownership outlined in the recommendations above, purposeful collaboration can provide an uplift in the quality and accessibility of career development for all PGRs.

At the sector and funder level, establishing clear expectations regarding both the provision of career development and the sharing of practice is key to enabling the cross-fertilisation of approaches proven to support PGRs. Consideration should be given to the development of a UK-wide framework to clarify how career development should be embedded within the PGR journey. This would offer the opportunity to explore mechanisms and platforms that promote practice sharing and provide a means of pooling resources and techniques proven to have an impact. Consistent evaluatory frameworks, linked to data on PGR outcomes and career routes, would equally provide a foundation for the identification of effective development.

Cascading effective practice

At a national level, greater strategic emphasis should be placed on learning lessons from sectors which have a track record of employing PhD graduates, as a means of encouraging those who have historically had less engagement. This can potentially offer contributions to career development from previously untapped areas of employment.

At both a sector and institutional level, formalising schemes and processes that celebrate contributions to career development, provides the basis for cascading effective practice. This can help to build momentum and raise the profile of such work as a key element of doctoral study. In addition, cross-disciplinary 'sandpits' and fora for collectively developing new models of career support offer opportunities to iteratively enhance provision. Stakeholders at each level should play a part in convening practical, barrier-free mechanisms for sharing best practice, developing porosity between institutions, employers and practitioners.

For those responsible for the design and delivery of career development, such mechanisms would provide clear routes to learn from others, access proven approaches and share emerging practice. Enhanced collaboration offers the opportunity to collectively address key challenges within PGR career development, including how to support those with identified needs linked to personal circumstances and protected characteristics.



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7. Build sustainable resource models to enable effective PGR career development

Sustainable funding models are central to the ongoing impact and efficacy of PGR career development.

PGR career development should be recognised as fundamental to the role and impact of research within society and this should be reflected in the support it receives.

Mechanisms and practices that enable effective career development should be recognised and incentivised to encourage continuous improvement.

Shared ownership of career development necessitates collaborative funding models that support cross-institutional and cross-sector initiatives.

Career development embedded within funded CDTs and DTPs provides an opportunity to build on proven models of delivery.

The efficient utilisation of resources at all levels can help to ensure equality of access to career development across the diverse PGR community.

Links to recommendation/s from literature:

Provide experiential and cross sector learning opportunities; Build networks and partnerships across sectors; Strengthen supervisor support and specialist career provision.

Commentary

Investment in career development

Sustainable funding for PGR career development underpins each of the recommendations above. At the national and sector level, the provision of appropriate resources for career development must necessarily be viewed in the context of competing demands for financial support. This context foregrounds the need for collective ownership of career development (recommendation 2) as part of a positive narrative on its impact and importance to the wider research endeavour.

Government and funder expectations focused on PGR career development and outcomes must make clear the need for sufficient, sustained resourcing of activities and opportunities. For HEIs, resource implications should be aligned as part of embedding PGR career development and outcomes within internal priorities and governance. The recommendations above in relation to coordination, communication and sharing of practice can help to manage the cost implications and ensure return on investment.

Similarly, collaborative initiatives (recommendation 6) offer an opportunity to realise a significant return on contributions from stakeholders, enabling the more efficient provision of career development at scale. Such approaches help to manage the risk to individual organisations, while drawing on a wider pool of expertise. This presents particular value when addressing the development needs of minoritised groups and those who face distinct challenges in preparing for career success. As noted under recommendation 1, effective support for career development should be incentivised through the collection and communication of data on PGR outcomes. This data would supply an evidence base for ongoing resourcing and investment, while providing insights for prospective students seeking PhD opportunities.

At an institutional level, the funding and provision of career development roles and expertise is uneven, both within dedicated careers teams and more broadly across development functions. This is affected by the perception, shared by PGRs within the study, that such services are not tailored to their needs. HEIs should consider optimum models of career development delivery that augment existing expertise, networks and peer-support with specialist provision.

Building on effective practice

Effective approaches to career development exist across the sector and provide examples that can help justify resource allocation. CDTs and DTPs often exemplify successful models of career development. Clear expectations and measures of success, aligned to dedicated resource, mean that cohort models of delivery have the time, scope and imperative to purposefully address career development for their PGRs. Stakeholders should consider how these models can inform wider practices within institutions, as well as across disciplinary and sector boundaries. Cohort models can be used as proof-of-concept for the return on investment generated by formal career development programmes. Additionally, institutions may consider how to match fund or align internal provision to echo development with these cohorts, generating parity through coordinated scheduling and design.

Similarly, examples of effective, mutually beneficial partnership working with industry can be used to inspire new relationships that broaden the opportunities available to PGRs, without significantly increasing costs. Increasing engagement with alumni, mentors and peer-networks offer cost-efficient approaches that collectively enhance the quality and variety of career development provision. Again, approaches that empower PGRs to own their career development at each stage of their PhD will create momentum, drive engagement and encourage positive career outcomes.

7

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Appendices

178 Appendix 1. PGR demographics –What is known about PGRs in the UK?

186 Appendix 1.1 PGR characteristics

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Appendix 1. PGR demographics – What is known about PGRs in the UK?

In order to set sampling targets for this study an understanding of the current make-up of the UK PGR population was required. This is presented across appendix 1 and 1.1.

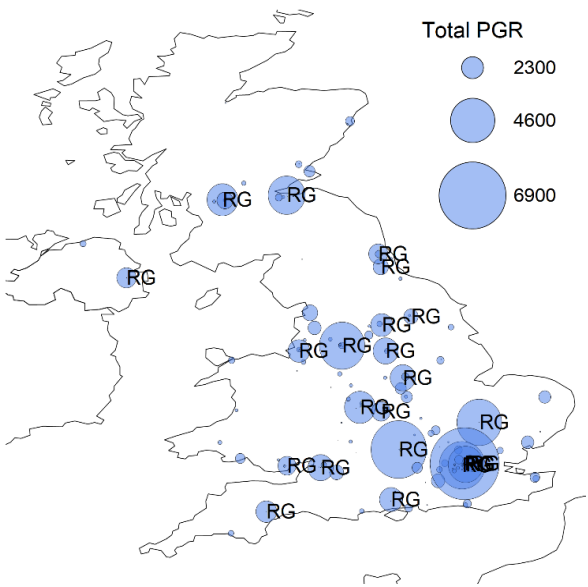
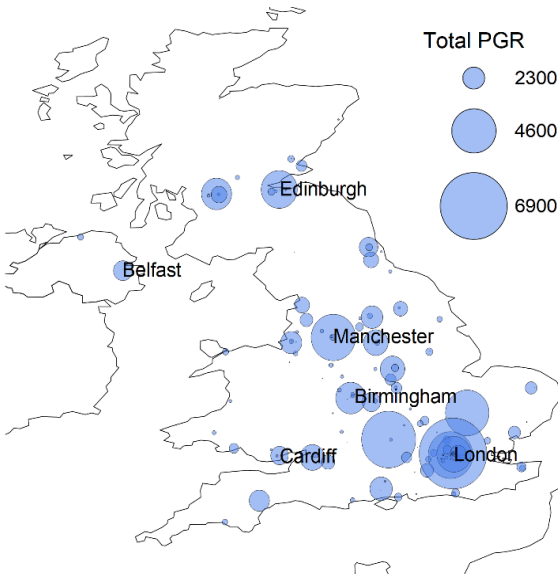
How many PGRs are studying in the UK? How are they studying? What are they studying?

111,990 students were classed as ‘doctorate research’ by HESA in 2023/24 in the UK (29,100 (~26%) of which are ‘entrant’, so started their studies in 2023/24) (HESA, 2023/2024a). HESA also reports 7,440 ‘Other postgraduate research’ and 120 ‘Institutional credit at postgraduate research’. HESA group these three types of students together under ‘postgraduate research’ (please note, some data is only available as ‘postgraduate (research)’). HESA reports 27,350 (24%) doctorate researchers study part-time, and 84,640 (76%) study full-time) (HESA, 2023/2024a). The proportion of PGRs studying in STEM (common aggregation hierarchy (CAH) level 1 HESA grouping ‘science’ 75,700 (63%) for postgraduate (research) 2023/2024) and SHAPE (CAH level 1 HESA grouping ‘non-science’ 43,850 (37%) for postgraduate (research) 2023/2024) disciplines is a little weighted

towards ‘science’/STEM subjects (HESA, 2023/2024c).

Where are PGRs studying within the UK? Where is their host institution?

Using HESA data 2023/2024 (HESA, 2023/24b) and longitudinal/latitudinal data (partially from Parkes, 2016) the distribution of PGR students (postgraduate (research)) across the UK has been plotted (see figures). HESA reports PGRs studying at 161 institutions across the UK (HESA, 2023/24a). Institutions ranged from hosting around 5 to over 6000 PGRs. The 24 research intensive universities that make up the Russell Group account for over half of the PGRs in the UK (57%) (HESA, 2023/24a). The two-panel figure below shows the distribution of postgraduate (research) students across the UK in 2023/2024. The first panel has several cities marked, whereas the second panel shows the same data but with the Russell Group institutions marked (with an RG).



Where are UK PGR students from? What is their permanent address?

Across OECD countries the proportion of international students increases with higher level of education (OECD, 2025, p.5). In the UK, international doctoral students account for at least 40% of the PGR population. For context, on average, international students account for only 25% of doctoral students across OECD countries, highlighting that the UK has a particularly high share.

Doctoral researchers 2023/24 by permanent address are shown in the table below. Looking at the ONS UK population estimate for comparison the UK breakdown of PGRs per nation broadly mirrors that of that of the UK population.

Country	Number of PGRs (HESA, 2023/2024a)	Percentage (of 111,990 total – all current PGRs) (HESA, 2023/2024a)	Percentage of UK (of 66,450 – total number of PGRs with UK permanent addresses only) (HESA, 2023/2024a)	ONS comparison to UK population (ONS, 2025)
England	55950	50%	84%	85%
Northern Ireland	1600	1%	2%	3%
Scotland	5680	5%	9%	8%
Wales	2975	3%	4%	5%
Other UK	245	0%	0%	
European Union	8210	7%		
Non-EU	37085	33%		
Not known	240	0%		
Total Non-UK	45300	40%		
Total UK	66450	59%		

What data is there on UK PGRs personal characteristics? How does UK PGR data compare to PGRs funded by UKRI?

The majority of PGRs are based in England, the breakdown across the UK is 83% England, 11% Scotland, 4% Wales, 2% Northern Ireland in 2023/2024 (HESA, 2023/2024a).

HESA shows both the total breakdown of all postgraduate (research) students in the UK as well as 2023/2024 entrants. The UKRI data is for the 2023 to 2024 financial year new studentship starts (n.5165).

Ethnicity	HESA postgraduate (research all) (HESA, 2023/2024b)	HESA postgraduate (research) 2023/24 entrant (HESA, 2023/2024b)	UKRI 2023/2024 studentship data (UKRI, 2023 to 2024)
White	78%	76%	46% (UKRI overall)
Black	5%	5%	2%
Asian	10%	11%	12%
Mixed	5%	5%	4%
Other	3%	3%	1%
Not Disclosed			26%

Ethnicity: 78% of all UK PGRs are white, (76% for 2023/2024 entrants). 46% of UKRI funded PGRs reported as white. However, UKRI note the relatively high proportion of ethnicity information not disclosed.

Sex: The majority of PGRs across the UK are female (53% to 47% male), 54% for 2023/2024 entrants. This trend is reversed for UKRI funded PGRs as females comprise only 47%.

Age: HESA reports the majority of PGR students are 30 years and over (46%), followed by those 25–29 years old (35%),

with only 19% between 21–24 years old. For 2023/24 entrants; the majority are 21–24 years old (36%), followed by 30 years and over (34%), with 25–29 years (29%). UKRI funded PGRs are mostly 29 years old or less.

Disability status: 18% of all UK PGRs report a known disability, 17% for 2023/24 entrants. 10% of UKRI PGRs report a disability. This percentage differs across the funding councils “from 15% AHRC (80 studentships) to 8% at EPSRC and BBSRC (175 and 45 studentships, respectively)” (UKRI, 2023 to 2024). UKRI note that the proportion of students with a reported disability has been increasing since 2014 to 2015. Disability status

may be underreported as Stiebahl, Danechi and Harker (Stiebahl *et al.*, 2025) report that in 2023/24 in the UK 24% of working-age adults were disabled (p.6). Alternatively, students with disabilities may feel unable or discouraged to embark on a doctorate (Brown, 2023; Koutsouris *et al.*, 2025).

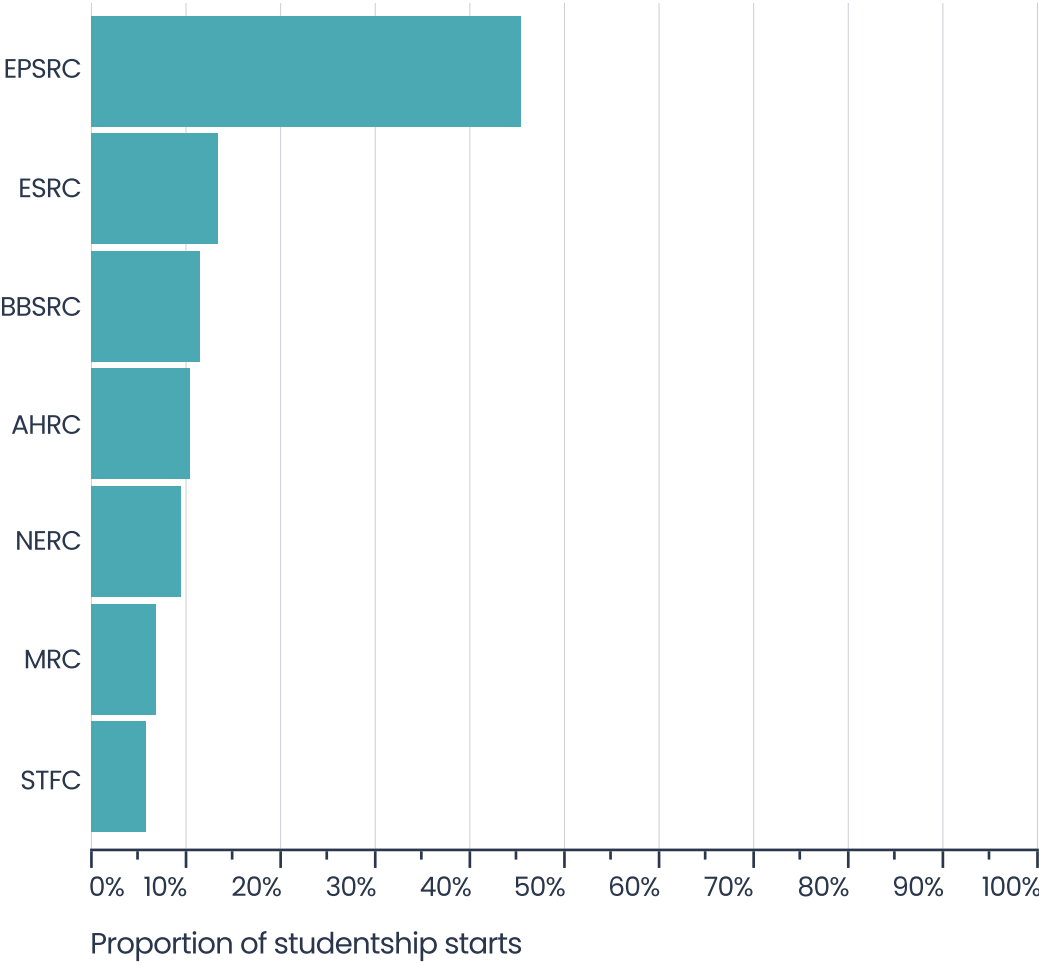
Religious belief: The majority of UK PGRs report no religion 53% overall, 55% in 2023/24 entrants. UKRI do not provide this information. For comparison this is higher than the percentage of the UK population reporting no religious belief in 2021/2022 (51.5% in Scotland (Scotland’s

Census, 2022), 37.2% in England and Wales (ONS, 2021), 17.39% in Northern Ireland (NISRA, 2021)).

For more detail see [Appendix 1.1](#) PGR characteristics.

What is the relative breakdown of PGR across UKRI’s funding councils?

UKRI are largest single PGR funder in the UK, within this EPSRC is the largest funding council. The percentage of PGR studentship starts in 2023 to 2024 across UKRI funding councils, is presented in the graph below (from UKRI, 2023 to 2024).



Other aspects that may impact PGRs ability to engage with career development beyond the characteristics reported by HESA have been explored. Whilst data related to some of these topics may not be systematically captured across the UK, the available literature has been reviewed.

PGRs mental health and wellbeing

Hazell *et al.* (Hazell *et al.*, 2021) found that in the UK doctoral researchers report significantly greater anxiety and depression (compared with educated working controls). Most “perceive poor mental health as a ‘normal’ part of the PhD process.” “The high rates of depression and anxiety symptoms within our UK DR [doctoral researcher] sample are concerning. In addition to the clear distress reported here, depression and anxiety symptoms are likely to undermine the chances of successfully completing a PhD by impairing academic performance via undermining neurocognitive functioning, for example through impairing executive functioning, attention, and working memory. Supporting the mental health of DRs is important to not only improve the wellbeing of these students, but also to enable them to successfully complete their studies and ensure important contributions to the research and knowledge economies” (Hazell *et al.*, 2021, p.7).

Intersectionality

Intersectional data is both complex to collect and analyse, as Block notes “Data around intersectionality, such as mode of study compared to age and gender cannot be readily evaluated” (Block, 2023). A brief summary of postgraduate student intersectional data is provided for context, as this may have influenced PGR experiences of career development.

Advance HE’s “Equality in higher education: statistical reports 2023” gives some insight into intersectionality (Advance HE, 2023). The HESA data used is from the academic year 2022–23 (the 2024 report was delayed due to availability of data). Ethnicity data is only collected by HESA for UK domiciled students.

Age: Part-time study increases with age across all degree levels (p.47). The majority of research postgraduates 35 and under studies Science, Engineering and Technology (SET) subjects, only 38.6% of those 35 years old and over do so (p.47).

Disability: 15.9% of UK students disclose as disabled, (highest in Wales (16.5%), lowest in Northern Ireland (13.8%) (p.84). Disability disclosure varies with degree level with 14.1% of research postgraduates disclosing a disability, less than first degree undergraduates (18.2%) but more than taught postgraduates (10.3%) (p.84). More part-time students disclosed a disability than full-time students, across all degree levels. Disability disclosure rates are similar across disciplines; SET

(16.2%) and non-SET (15.6%) students disclosed as disabled. The proportion of disabled students receiving disabled student allowance (DSA) was particularly low for research postgraduates in mathematical sciences (15.4%) (p.85). Among disabled research postgraduates 24.9% report a mental health condition, 27.2% a specific learning difficulty – lower than undergraduate figures (30.4% and 31.7% respectively) (p.85). PRES 2025 report notes the persistent satisfaction gap between PGRs who report a disability and those who don’t, “Some things in the wider university context make it more difficult for disabled researchers regardless of supervisors being understanding, if the wider context is not accessible then the training and development is affected.” (p.17) (Advance HE and Neves, 2025).

Race and discipline: Black, Asian and minority ethnic representation is lower at the research postgraduate level (20.6%) than at first-degree undergraduate level (28.4%) (p.126). Representation differs across disciplines with better representation within SET subjects than non-SET. However, representation drops sharply in some disciplines at the postgraduate research level compared to first degree level, for example in SET medicine and dentistry (19.5% drop), subjects allied to medicine (12.2% drop), and non-SET social sciences (8.8% drop).

Gender, mode of study, discipline and degree level:

Women are the majority at all degree levels, comprising 51.3% of postgraduate research students and 62.0% of part-time students (p.165). However, women remain a minority among research postgraduate students in SET (47.8%), particularly in engineering and technology and computing. Women were a minority of research postgraduate EU (49.8%) and non-EU domiciled students (48.9%). Women dominate in veterinary science, psychology, and subjects allied to medicine at all degree levels, and most non-SET subjects except business and management (p.166).

BBSRC’s “Inequality in Early Career Research in the UK Life Sciences” (BBSRC, 2024) highlights significant racial, gender, socioeconomic and regional inequalities. Black graduates are less likely to be shortlisted or funded for PhD studentships, less likely to complete a PhD, and less likely to progress into postdoctoral roles post-PhD. “Women are less likely to progress to a life sciences PhD than men, as are graduates from post-1992 universities and those who have non-graduate parents”. A gender pay gap is evident in first roles post-PhD. The report also finds reduced regional mobility between undergraduate and postgraduate research degrees, with London and the South East experiencing a strong “brain gain.” Older applicants are less likely to receive BBSRC funding. Non-completion rates in life sciences are around 18%, with no gender differences noted. However,

Black British students are more likely to drop out than other minority ethnic groups. Students self-reporting mental disabilities in their first year have higher dropout rates, compared to those who did not report any disabilities. The report highlights how regional disparities and institutional hierarchies shape barriers to opportunity

The Higher Education Policy Institute (HEPI) has published a number of blogs addressing some of these topics. Block's 2023 article highlights the lack of data and information around challenges faced by part-time PGRs versus their full-time counterparts (Block, 2023). Without this information Block argues universities cannot address the needs of this typically mature (in 2021/22, 83% were over 30 years old), majority female population. Banahene's 2024 article highlights differential progression to postgraduate study, arising from barriers to access for those from non-research intensive universities at undergraduate (UG), the impact of UG awarding gaps and the impact of socio-economic backgrounds (Banahene, 2024). Banahene notes the outstanding work of a number of projects (YCEDE (YCEDE, 2022), EDEPI (EDEPI, 2022) and Generation Delta (University of Leeds, 2022), as well as the Martingale foundation (Martingale Postgraduate Foundation) to address this.

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Appendix 1.1 PGR characteristics

Sex	HESA postgraduate (research) all (HESA, 2023/2024)	HESA postgraduate (research) 2023/24 entrant (HESA, 2023/2024)	ONS comparison to UK population (ONS, 2025)	UKRI 2023/2024 studentship data (UKRI, 2023 to 2024)
Female	53%	54%	51%	47%
Male	47%	46%	49%	
Age group				
20 and under	0%	0%	23% (this is under 20)	
21–24 years	19%	36%	6%	
25–29 years	35%	29%	7%	Most in 29–or–less age group
30 years plus	46%	34%	64%	
Disability status				
Known disability	18%	17%	24% (from here)	10% (at aggregated UKRI level)
No known disability	82%	83%		

Religious belief	HESA postgraduate (research) all (HESA, 2023/2024)	HESA postgraduate (research) 2023/24 entrant (HESA, 2023/2024)	From England/ Wales data from (ONS, 2021b), from (Scotland’s Census, 2022) (in yellow), from Northern Ireland (NISRA, 2021b) (in pink)	UKRI 2023/2024 studentship data (UKRI, 2023 to 2024)
No religion	53%	55%	37.2% 51.5% 17.39%	
Buddhist	2%	2%	0.5% 0.28%	
Christian	25%	22%	46.2% 38.7% 79.67%	
Hindu	3%	3%	1.7% 0.55%	
Jewish	1%	1%	0.5% 0.11%	
Muslim	12%	12%	6.5% 2.2%	
Pagan	0%	0%	n/a (included within “other”), 0.35%	
Sikh	0%	0%	0.9% 0.2%	
Any other*	3%	3%	0.6% 0.23% 1.34%	
Not answered			6.0% 6.16% 1.60%	

* Not necessarily strictly comparable as Scotland recorded Pagan in 2022, but ONS included Pagan in ‘other’.

Ethnicity			(ONS, 2021a) for England and Wales, Scotland (Scotland’s Census, 2022) (yellow text), Northern Ireland (NISRA, 2021a) (in pink)	
White	78%	76%	81.7% 87.1% 96.8%	46% (UKRI overall)
Black	5%	5%	4.0% 1.2% 0.58%	2%
Asian	10%	11%	9.3% 3.9% 1.61%	12%
Mixed	5%	5%	2.9% 1.12% 0.76%	4%
Other	3%	3%	2.1% 0.91% 0.29%	1%
Not disclosed				26%

In summary PGRs in the UK are more likely to be female, unless funded by UKRI, which has majority male PGRs. PGRs in the UK are more ethnically diverse compared to the average population of any nation of the UK, whilst still being majority white. PGRs are more likely to hold no religious belief than compared to the average population of any nation of the UK. UK PGRs are less likely to report a disability than compared to that of UK working age adults.

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Appendix 2. PGR EOI demographics

PGRs provided information when completing the EOI form which allowed the following data to be compiled; the nation of the UK they were based in, their ethnicity (White, Mixed, Asian, Black, Other)*, if they studied full or part-time*, their disciplinary area*, their year of study, if they had caring or additional responsibilities, if they were based remotely, if they based primarily at a HEI or not, if they felt minoritised in their disciplinary area, if they were in a cohort or not* and the TRAC peer group of their institution*.

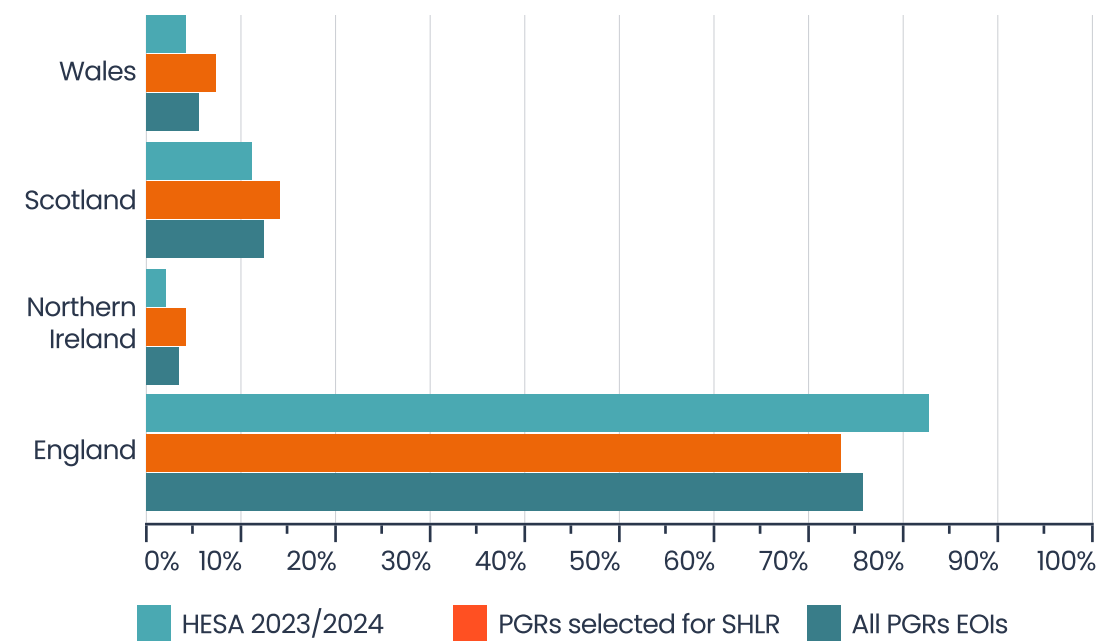
Items marked with a * indicate data that was shared with Listening Rooms and was used to tag the anonymised transcripts.

A total of 338 EOIs from PGRs were received. From this a total of 235 were shared with SHLR to invite to participate in a conversation. Those shared were selected to try to achieve a good spread of PGR experiences across the UK. Data are presented as percentages to minimise the risk of identifying individuals where counts are small.

HESA 2023/2024 – ‡ <https://www.hesa.ac.uk/data-and-analysis/sb271/figure-3> and , ** <https://www.hesa.ac.uk/data-and-analysis/sb271/figure-13>

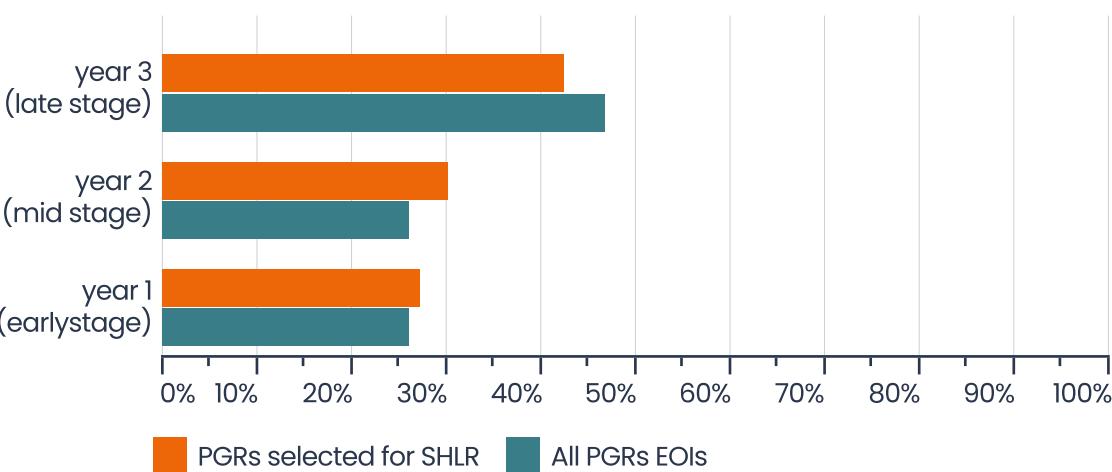
Nation of UK	All PGRs EOIs	PGRs selected for SHLR	HESA 2023/2024‡
England	76%	73%	83%
Northern Ireland	4%	4%	2%
Scotland	13%	14%	11%
Wales	5%	6%	4%
I'm not based in UK	2%	3%	

Nation of the UK



Year of study	All PGRs EOIs	PGRs selected for SHLR
Year 1 (early stage)	27%	28%
Year 2 (mid stage)	26%	30%
Year 3 (late stage)	47%	43%

Year of study



Caring/additional employment	All PGRs EOIs	PGRs selected for SHLR
Yes	61%	64%
No	39%	36%

Based remotely?	All PGRs EOIs	PGRs selected for SHLR
Remotely	12%	14%
Mix of both	37%	38%
On-site	51%	47%

At a HEI or elsewhere?	All PGRs EOIs	PGRs selected for SHLR
Non-university organisation	1%	1%
Primarily at a university but with some time at another type of organisation	7%	7%
University only	92%	92%

Feel minoritised?	All PGRs EOIs	PGRs selected for SHLR
Yes	68%	71%
No	32%	29%

Disciplinary area	All PGRs EOIs	PGRs selected for SHLR	HESA 2023/2024**
Medicine and dentistry	2%	2%	7%
Subjects allied to medicine	7%	8%	7%
Biological & sport sciences	6%	6%	9%
Psychology	8%	8%	7%
Veterinary sciences	0%	0%	0%
Agriculture, food & related studies	1%	1%	1%
Physical sciences	4%	4%	8%
Mathematical sciences	1%	1%	3%
Engineering & technology	11%	9%	13%
Computing	4%	6%	5%
Architecture, building & planning	2%	3%	1%
Geography, & environment studies (natural sciences)	4%	3%	3%
Geography, & environment studies (social sciences)	2%	3%	1%
Law	3%	3%	2%
Social sciences	15%	11%	8%
Business and management	8%	6%	6%
Language and area studies	3%	3%	4%
Historical, philosophical and religious studies	4%	4%	6%
Education & teaching	7%	7%	5%
Combined & general studies	0%	0%	1%
Media, journalism & communications	1%	2%	1%
Design, & creative & performing arts	8%	9%	3%



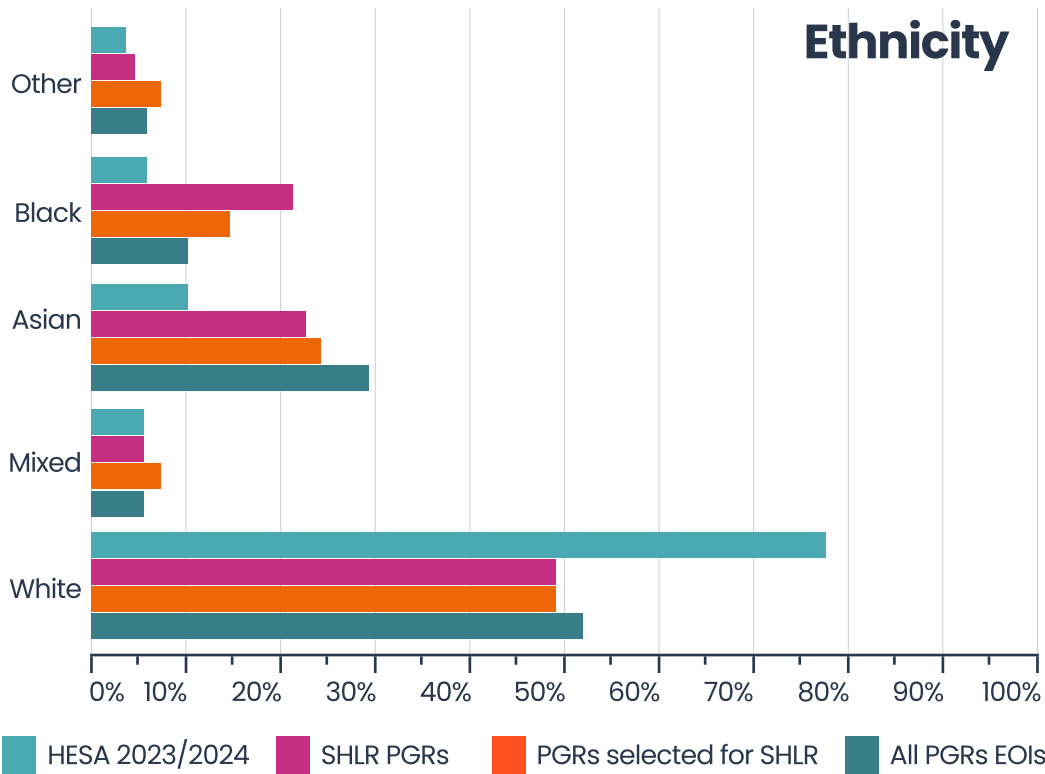
Appendix 2.1 PGR Listening Rooms demographics

Not all PGRs who submitted an EOI and were invited to a Listening Room conversation took up this opportunity. 338 submitted an EOI, 235 were invited to a SHLR conversation (40 conversations were held in total), a total of 82 PGRs participated in a conversation. Data are presented as percentages to minimise the risk of identifying individuals where counts are small.

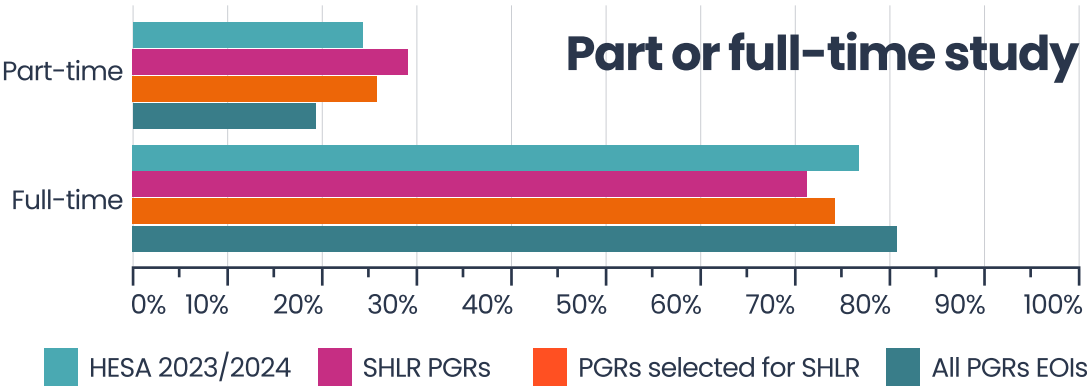
HESA 2023/2024 in the below tables refers to –

- *<https://www.hesa.ac.uk/data-and-analysis/sb271/figure-5> ,
- ** <https://www.hesa.ac.uk/data-and-analysis/sb271/figure-13> ,
- † <https://www.hesa.ac.uk/data-and-analysis/sb271/figure-7>

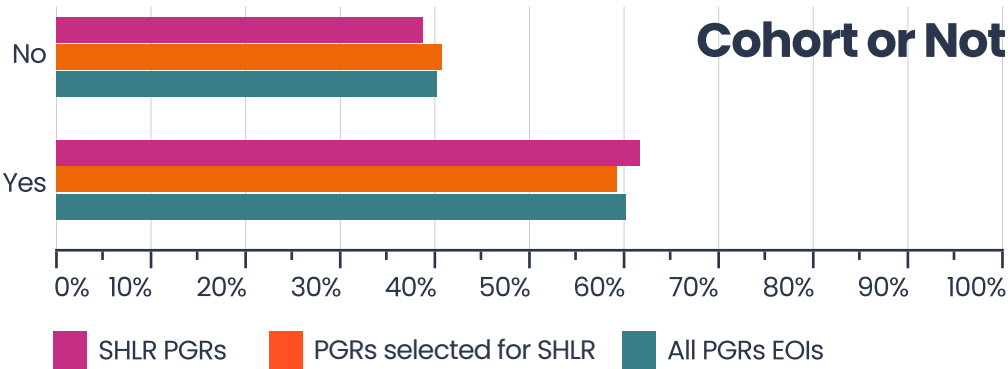
Ethnicity	All PGRs EOIs	PGRs selected for SHLR	SHLR PGRs	HESA 2023/2024*
White	51%	49%	49%	78%
Mixed	5%	7%	5%	5%
Asian	29%	24%	22%	10%
Black	10%	14%	21%	5%
Other	5%	7%	4%	3%



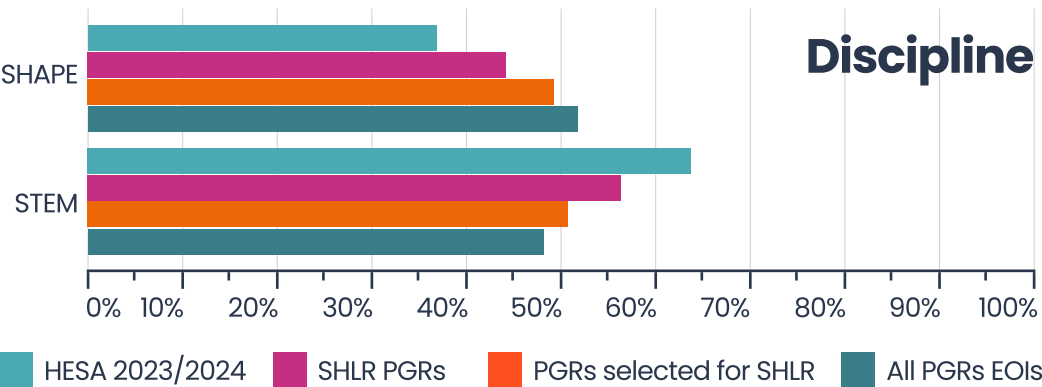
Part or full-time?	All PGRs EOIs	PGRs selected for SHLR	SHLR PGRs	HESA 2023/2024*
Full-time	81%	74%	71%	76%
Part-time	19%	26%	29%	24%



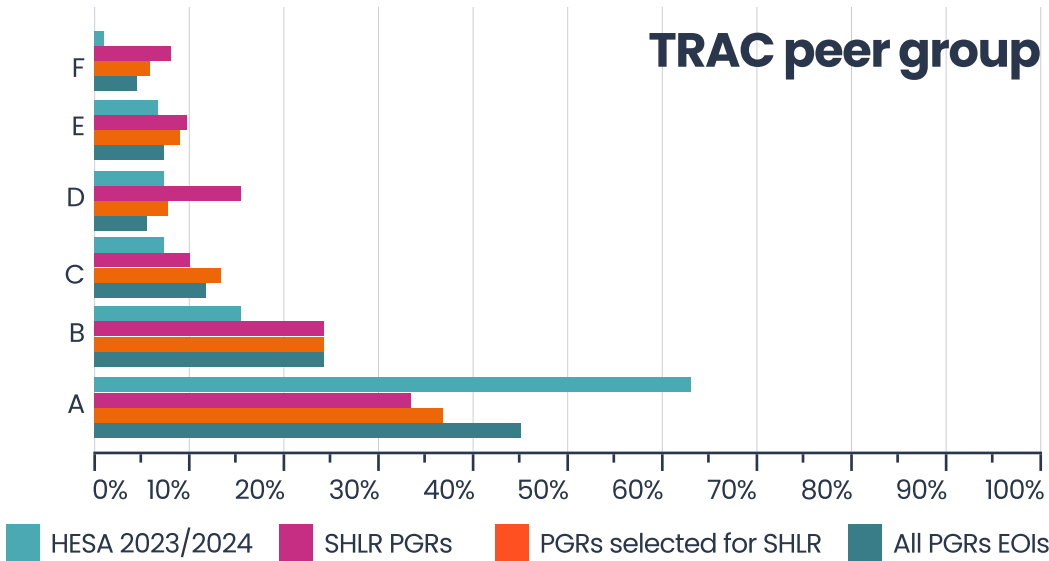
Cohort or not	All PGRs EOIs	PGRs selected for SHLR	SHLR PGRs
Yes	60%	59%	62%
No	40%	41%	38%



Discipline	All PGRs EOIs	PGRs selected for SHLR	SHLR PGRs	HESA 2023/2024*
STEM	48%	51%	56%	63%
SHAPE	52%	49%	44%	37%



TRAC peer group	All PGRs EOIs	PGRs selected for SHLR	SHLR PGRs	HESA 2023/2024*
A	45%	37%	33%	62%
B	24%	24%	24%	15%
C	11%	13%	10%	8%
D	5%	7%	15%	7%
E	7%	9%	10%	7%
F	4%	6%	9%	1%





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