

To make PhDs fit for the 21st century we need to develop evidence based policies



*The growth of PhD level education globally and in the UK has changed the nature of what it means to be a PhD holder. However, despite there being more PhDs and more value placed on producing them, there is still a severely limited evidence base for understanding PhD outcomes. Drawing on their recent [working paper](#), **Sally Hancock** and **Paul Wakeling** outline key policy issues around PhD education and put forward an agenda for developing an evidence base for making PhDs fit for the 21st century.*

21st Century PhDs: an age of expansion

In recent decades, the number of PhDs awarded by universities has [steadily increased](#). This trend is unlikely to cease anytime soon, as governments across the world assert that PhD holders are integral to economic growth. In the UK, [postgraduate loans](#) have been introduced to boost the number of students entering doctoral study. If the government is to achieve its ambitious target of increasing [expenditure on R&D to 2.4% by 2027](#), it will need to educate more students to PhD level and support their transition into a wide range of employment.

Responses to this ongoing expansion are starkly divided. In addition to the 'more is better' position of many governments, there are those who say that 'enough is enough': there are already [too many PhD holders](#), at risk of un- or under-employment. Other commentators suggest that further expansion alone is misguided: to develop researchers who can contribute across sectors, disciplines and nations, the PhD requires [radical reform](#) – beginning with the socio-economic, gender and ethnic diversification of PhD entrants.

Reconciling these differences is hindered by the severely limited evidence base for PhDs, who receive considerably less attention than undergraduates. This is especially true in the UK.

What do we know about PhDs?

There are sizeable gaps in our understanding of doctoral access, experiences and outcomes in the UK – and where data does exist, it seldom forms a coherent picture.

Taking first the issue of access, we know that certain groups are [under-represented at doctoral level](#). However, we do not know whether such students are less likely to apply, or whether they apply with lower rates of success. Racial discrimination and bias have been identified as [restricting Black students' access to research council funding](#). Once enrolled, doctoral students and postdocs are reported to possess [unrealistic career aspirations](#), and [poor mental health and well-being](#) – but there is little understanding of the individual and structural factors associated with this. It is well established that the majority of doctoral holders leave academia after their degree, yet the multitude of eventual career pathways – and how and why these may differ – is far less clear. We don't collect representative data on how doctoral outcomes differ by socio-economic background, or institution of PhD, for example (both of which are associated with significant differences in [undergraduate employability](#)).

Within the academic literature, there has been a turn to qualitative studies of the lived experiences of PhD students and postdocs. Common themes include:

- students' motivations and career aspirations;
- experiences of employment precarity, the academic labour market, and mobility;
- agency, identity and decision-making.

Collectively these studies tend to undermine the 'more is better' view of expansion, emphasising instead the challenging circumstances facing newly qualified PhD holders; and their continued efforts – contrary to both the odds and the policy narrative – to secure academic employment. But, while rich in detail, qualitative studies lack the representativeness required to inform decision-making at the institution and sector level. Furthermore, few such studies focus exclusively on the UK – which is problematic given the [marked variations](#) between national labour markets.



Focus on the UK: why do we know so little?

The sustained investment in PhD expansion – and accompanying rhetoric on its economic importance – has prompted a number of longitudinal studies of PhD holders in other countries. Efforts toward nationally coordinated data collection in the UK, however, remain curiously absent.

The statutory framework around doctoral education may explain this apparent lethargy. Since the 2017 Higher Education and Research Act, ownership of the UK PhD has become [fragmented](#). As a result, responsibility for the sector-wide monitoring of doctoral access, experiences and outcomes seems to have fallen through regulatory gaps.

The Office for Students, for example, is not expected to report on fair access to PhD study as it does for undergraduate programmes. Similarly, HESA's analyses of enrolled students in the Student Record largely focus on undergraduates. The Destinations of Leavers from Higher Education Longitudinal (Long DLHE) survey contains the most comprehensive record of PhD employment destinations to date – but, it was [Vitae](#), not HESA, who undertook to publish these data. In any case, the Long DLHE has now been replaced by [Graduate Outcomes](#) – another survey which has not been designed with PhD holders in mind, and where there are already [concerns about far lower response rates](#).

Responsibility for doctoral education is further complicated by differences across the home nations, and, the inconsistent – if well-intentioned – initiatives of individual funders.

The value of 21st Century PhDs: rethinking methods and data

Without reformed approaches to data collection, we will not be able to capture the contribution of doctoral expansion to 2.4%, plan successful interventions to diversify the doctoral cohort and research workforce, or provide PhD students with rich and representative career insights as they plan for their futures.

Our working paper offers a number of recommendations on the types of data we should be collecting in the UK – and this work is ongoing. There is scope for further methodological learning from the research teams advancing work on the PhD in other nations. Efforts in the UK should not develop in isolation – not least because of the opportunity for international collaboration, but because developing data fit for international comparison is increasingly important in a global research system.

Development towards nationally coordinated data collection should be guided by an understanding of PhD pathways as complex and multiple, rather than linear and homogenous. With its network of international partners, and commitment to improve the data infrastructure of the research system, the newly founded Research on Research Institute ([RoRI](#)) offers a vital role in facilitating these next steps. The timing of the new [Concordat](#) to support researcher career development is also fortuitous in galvanising long overdue action.

This post draws on the authors co-authored working paper, [21st Century PhDs: Why we need better methods of tracking doctoral access, experiences and outcomes](#).

About the authors

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