



The impact of doctoral careers: Overview

Information for doctoral students and those considering undertaking a doctorate

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About this briefing

This briefing has been produced for current or potential doctoral students and those who support and advise them. It is informed by the Doctoral Impact and Career Tracking Study conducted on behalf of Research Councils UK (RCUK) and the higher education funding bodies for England and Wales (HEFCE and HEFCW). It provides information on the range of careers, benefits and impacts resulting from doctoral study, with a particular focus on those working outside academia. The briefing provides a general overview of findings and is complemented by key statistics and examples of achievements and impact for graduates of different doctoral disciplines.

About the data

The data in this briefing is drawn from a survey of doctoral graduates seven to nine years after they completed their doctorate and from interviews with them and their employers. 1,839 people who graduated with a doctorate from a UK institution between 2003-4 and 2005-06 completed an online survey during April to June 2013.¹ We carried out follow-up interviews with 268 doctoral graduates who had completed the survey and 96 employers of doctoral graduates. The aim of this research was to understand career pathways and destinations of doctoral

graduates and to provide evidence of the economic, social and cultural impact of their doctoral study.

How doctoral graduates benefit

Employment and financial benefits

Our research found that doctoral graduates have high levels of employment; 89 per cent of survey respondents are in employment seven to nine years after completing their doctorate. Just 3 per cent were unemployed and seeking work.

The median salary of doctoral graduates seven to nine years after graduation was £40,700, with 80 per cent of survey respondents earning between £30,000 and £65,000. The financial rewards of doctoral study were found to differ by employment sector with levels highest for respondents working in the finance, business, IT and legal sector where the median salary is £60,000 seven to nine years after graduation. In the higher education sector, the median salary of doctoral graduates responding to our survey is sector is £40,000.

Non-financial benefits

Doctoral graduates taking part in the research were asked about the wider benefits of completing a PhD. They report the doctoral experience broadened their horizons and developed their critical thinking skills, making them more discerning consumer of information. These skills were found to benefit them both within and beyond their current employment.

¹ Contacting doctoral graduates so long after graduation was a challenge and the methods adopted broke new ground. We advise that the conclusions are interpreted with a reasonable degree of caution. In particular one of our key methods for disseminating the survey was through university alumni offices and therefore it is likely that we have over-sampled those in higher education positions. Our sampling of graduates and employers for interview was designed to gain perspectives from roles and sectors of particular interest, rather than to produce statistically representative data. In particular we mainly interviewed doctoral graduates who were working outside higher education.

Some 87 per cent of survey respondents believe that their PhD has helped them progress towards their long-term career ambitions. Nearly three quarters of doctoral graduates said they are satisfied or very satisfied with their current role. It is the intellectual challenge that survey respondents say is the most satisfying aspect of their work.

Doctoral graduates said completing their doctorate often required grit and determination. As a result they built resilience and confidence, which they say has enabled them to take on new tasks and better meet life's challenges. Other positive outcomes achieved through their doctoral training include lifelong friendships, networks of contacts, great feelings of pride and the ability to act as a role model to others.

Career pathways of doctorate graduates

Our research identified three broad types of doctoral graduate that relate to when in their career they undertake their PhD and why:

- *Early career graduates often move straight from a first degree to a research degree.*
- *Mid-career graduates may undertake their doctorate as professional development or to forge a new and more satisfying career.*
- *Late career graduates complete doctorates as retirement projects or as the culmination of their professional careers.*

Many of the doctoral graduates we interviewed had developed careers with clear upward progression in a single sector. The most common career pathway for interviewees who have changed sectors is a short period of time spent in higher education as a researcher

followed by a move out of higher education to another sector. Our research also found that self-employment and portfolio careers were almost always an active and positive choice for doctoral graduates that followed this pathway, providing freedom, flexibility and the opportunity to apply their skills.

Doctoral graduates in employment

Consultations with employers of doctoral graduates revealed that employers value doctoral graduates' deep and specialist subject knowledge, particularly where there is a clear link between this and their business needs. Employers across sectors value graduates' excellent research and analytical skills, particularly their capacity for critical thinking and ability to solve problems by bringing fresh perspectives and a systematic approach. Personal qualities of confidence, dedication, resilience and motivation were all recognised, and valued by employers of doctoral graduates. Three-quarters of employers we interviewed suggested the loss of their doctoral graduates would have a major impact on their operations. More than one-in-five employers said doctoral graduates are business critical and the loss of them would be catastrophic; without them these businesses would cease.

Improving your employability

Employers said doctoral graduates excel at report writing and presenting information to others. Our consultations with employers also suggested that it would be advantageous for doctoral students to invest in developing interpersonal skills and skills for leading or working effectively in teams.

A PhD without work experience was regarded as being of limited value by many employers; four in ten employers suggested that work experience was as important as the qualification. Seeking opportunities to combine doctoral training with relevant work experience would be beneficial.

Some employers felt that doctoral graduates without experience outside higher education could take time to adapt to the necessary pace and demands of work outside academia. Work experience outside higher education could help demonstrate to employers your ability to work in a commercial environment.

Factsheets for Different Disciplines

This briefing is complemented by factsheets including key statistics and examples of achievements and impact for graduates of different doctoral disciplines.

- *Arts and Humanities Doctoral Graduates Factsheet*
- *Social Sciences Doctoral Graduates Factsheet*
- *Biological Sciences Doctoral Graduates Factsheet*
- *Biomedical Sciences Doctoral Graduates Factsheet*
- *Physical Sciences and Engineering Doctoral Graduates Factsheet*

Find out more

The doctoral impact and career tracking study was commissioned by Research Councils UK (RCUK) and the higher education funding bodies for England and Wales (HEFCE and HEFCW). A copy of the full report, along with shorter briefings targeted at policy makers, employers and current and potential doctoral student can be found here:

<http://www.rcuk.ac.uk/skills/impact/>

Survey data from the study will be deposited with the UK Data Archive for other researchers to use:

<http://www.data-archive.ac.uk/>