

# Wellcome Trust Basic Science Career Tracker Results of wave 6 (2014)

May 2015

# Introduction

1. Investment in individuals is integral to the Wellcome Trust's funding strategy, to nurture and support talented and bright researchers across their career paths. A priority for the Evaluation team is therefore to monitor and track the career progression and choices of the early-career researchers we have invested in, from the PhD and postdoctoral stages to our former intermediate fellows. The information gathered will help to ensure that we support these and future researchers in the best and most helpful ways.
2. In 2009 the Basic Science Career Tracker (BSCT) was established, a longitudinal cohort study that allows us to follow the careers of key cohorts of Trust-funded researchers.
3. Now in its sixth year, the BSCT is providing valuable insights and trend data about the career choices of current and former Trust-supported researchers, which in turn are helping to inform and refine our funding strategies and policies. For example, BSCT data have highlighted the continued gender gap in academic science in our own cohorts and contributed important qualitative data to our ongoing work to support equality of opportunity in science for women and men and improve the retention of talented women in academic science. The demand for more rigorous and systematic data on the career paths of researchers has also increased the interest in and reach of the BSCT work, particularly from our peer organisations.
4. The BSCT currently tracks 912 individuals funded by a range of Trust personal awards and continues to grow as new schemes are added to it. In 2014, we tracked current and former grantholders from the following funding schemes:
  - **Wellcome Trust Four-year PhD Programme studentships**<sup>1</sup> (including cohorts awarded from 2003/04)
  - **Wellcome Trust and National Institutes of Health Four-year PhD Studentships**<sup>2</sup> – provide bright undergraduates postgraduate training and experience in international collaborative research in the UK (or Republic of Ireland) and the US National Institutes of Health (first students surveyed in 2013)
  - **Sir Henry Wellcome Postdoctoral Fellowships (SHWPFs)**<sup>3</sup> – early-career four-year awards which enable promising newly qualified postdoctoral researchers to start developing their independent research careers by working in the best laboratories in the UK and overseas (including Fellows awarded from 2006/07)
  - **Research Career Development Fellowships (RCDFs)**<sup>4,5</sup> – intermediate-career five-year awards that aimed to launch the independent careers of future research leaders by giving them the opportunity to consolidate their postdoctoral training and undertake high-quality research in a strong research environment. (including Fellows awarded from 2002/03)
  - **International Senior Research Fellowships (ISRFs)** – supported excellent postdoctoral researchers to establish their independent research careers in central Europe, India, Australia, New Zealand and South Africa (closed in 2013)
  - **Research Career Re-entry Fellowships**<sup>6</sup> – four-year awards enabling former postdoctoral scientists who wish to recommence a scientific research career to retrain and return to research after a break of at least two years (included from 2013, previously Career Re-entry Fellowships).

<sup>1</sup> [wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/PhD-funding-and-undergraduate-opportunities/WTD004384.htm](http://wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/PhD-funding-and-undergraduate-opportunities/WTD004384.htm)

<sup>2</sup> [wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/PhD-funding-and-undergraduate-opportunities/WTD027399.htm](http://wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/PhD-funding-and-undergraduate-opportunities/WTD027399.htm)

<sup>3</sup> [wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/Fellowships/Basic-biomedical-fellowships/WTX033549.htm](http://wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/Fellowships/Basic-biomedical-fellowships/WTX033549.htm)

<sup>4</sup> [wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/Fellowships/Basic-biomedical-fellowships/WTD004431.htm](http://wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/Fellowships/Basic-biomedical-fellowships/WTD004431.htm)

<sup>5</sup> For UK fellows, from 2012 this scheme was subsumed by the Wellcome Trust-Royal Society Sir Henry Dale Fellowship.

<sup>6</sup> [wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/Fellowships/Basic-biomedical-fellowships/WTD004380.htm](http://wellcome.ac.uk/Funding/Biomedical-science/Funding-schemes/Fellowships/Basic-biomedical-fellowships/WTD004380.htm)

# Methodology

5. New cohorts are added to the BSCT each year as grantholders enter their final year, while former grantholders continue to receive the survey annually. We plan to track cohorts for at least ten years in the first instance.
6. Respondent data are analysed by award/grant type, cohort (the financial year in which the researcher received their award) and wave (the year of the survey).
7. A key challenge in any kind of panel (cohort) tracking is to ensure that the response at each investigation point remains high. In wave 6, we offered the choice of a charity donation or a £10 Amazon voucher to those who have been included in the BSCT for at least five years (since wave 1 or wave 2). We will further explore methods to increase the response in future waves.
8. To minimise the attrition in the information we have on each cohort over time – due mainly to declining response rates – in waves 4–6, data gathered from the online surveys were supplemented by web research to find people who did not respond to the survey. Where this mixed methodology (survey combined with web research) of locating individuals has not been used, this is clearly noted.
9. In wave 6 of the BSCT (summer 2014), overall survey participation was high, with a total response of 78 per cent across all the cohorts; adding in the web research, we were able to reliably find 89 per cent of individuals across all of our cohorts. However, there is some variation across scheme types, and response rates among the most recent cohorts tend to be higher than for earlier cohorts (see table 1).
10. When appropriate, and for illustrative purposes, participants' comments have been included in this report to support the data and illustrate emerging themes and issues; these are anonymised and referenced according to the type of grant received by the individual.

Award and cohort	Number approached	Responses from survey	Results from web research	Total response
<b>PhD Programme studentships</b>				
2003/04	59	44 (75%)	7	51 (86%)
2004/05	72	52 (72%)	13	65 (90%)
2005/06	69	55 (80%)	7	62 (90%)
2006/07	68	46 (68%)	10	56 (82%)
2007/08	115	76 (66%)	13	89 (77%)
2008/09	105	89 (85%)	5	94 (90%)
2009/10	110	73 (66%)	21	94 (85%)
<b>• Sir Henry Wellcome Postdoctoral Fellowships</b>				
2006/07	19	17 (89%)	1	18 (95%)
2007/08	16	15 (94%)	0	15 (94%)
2008/09	16	12 (75%)	1	13 (81%)
2009/10	18	17 (94%)	1	18 (100%)
<b>• Research Career Development Fellowships</b>				
2002/03	19	17 (89%)	1	18 (95%)
2003/04	14	11 (79%)	3	14 (100%)
2004/05	17	15 (88%)	1	16 (94%)
2005/06	22	20 (91%)	2	22 (100%)
2006/07	20	18 (90%)	2	20 (100%)
2007/08	23	23 (100%)	0	23 (100%)
2008/09	28	27 (96%)	0	27 (96%)
2009/10	14	14 (100%)	0	14 (100%)
<b>• International Senior Research Fellowships</b>				
2001/02	21	15 (71%)	5	20 (95%)
2002/03	15	14 (93%)	1	15 (100%)
2003/04	11	7 (64%)	2	9 (82%)
2004/05	7	6 (86%)	1	7 (100%)
2005/06	4	4 (100%)	0	4 (100%)
2006/07	5	4 (80%)	0	4 (80%)
2007/08	3	3 (100%)	0	3 (100%)
<b>• Research Career Re-entry Fellowships</b>	10	9 (90%)	0	9 (90%)
<b>• Wellcome Trust and NIH PhD Studentships</b>	12	10 (83%)	1	11 (92%)
<b>Total</b>	<b>912</b>	<b>713 (78%)</b>	<b>98</b>	<b>811 (89%)</b>

**Table 1: Response across all awards and cohorts**  
**Source: Wellcome Trust BSCT, wave 6 (2014)**

## Key themes

11. After wave 6 of the BSCT, we are starting to see a number of trends in the data, which we will continue to monitor. Key themes identified include: career destinations (in academia), careers outside academia, career motivations and intentions, and support and mentorship.

### Career destinations (in academia)

- The majority of Four-year PhD programme students take a first position in academia (78%). We see a higher proportion of women leaving academia immediately post-PhD; however, by three years post-PhD the difference between the proportion of men and women remaining in academia seems to decrease.
- There is evidence that the Sir Henry Wellcome Postdoctoral Fellowship scheme is helping to support researchers to pursue and launch independent careers in academic research. While the numbers are small, the vast majority (96%) of former Fellows to date are employed in academia, with 28 out of 41 receiving funding as lead applicants and 15 funded as co-applicants.
- The Research Career Development Fellowships are also proving to be an important funding route to supporting independent academic research careers. Wave 6 again demonstrates that a large proportion of former Fellows have established an independent research career: almost all (102/105) continue to be employed in academia, with an increasing number in senior positions and securing funding.
- Wave 6 highlights the career stability experienced by former International Senior Research Fellows, with the majority continuing to be employed in permanent senior academic positions. Former Fellows have also been successful in securing subsequent funding.
- Four out of the six former Research Career Re-entry Fellows included in the BSCT were continuing their careers in academia.

### Careers outside academia

- Across all schemes, those pursuing careers outside of academia tend to work in science- and health-related jobs, with the majority working in biotechnology/pharma (27/111), medicine/healthcare (19/111), science communication/writing (16/111), scientific consultancy (10/111) and science administration/policy (9/111).
- Of those working outside academia, 90% report that they are using their scientific training or background in their current job and 44% still conduct research, with 42% conducting applied research and 7% conducting basic research.

### Career motivations and intentions

- As found in previous waves, the majority of final-year PhD students were motivated to start their PhD by their interest in research and their desire to pursue an academic research career. Our data show that the majority of those motivated in these ways do take first positions in academia.
- Unsurprisingly for those more established in their academic careers (Sir Henry Wellcome Postdoctoral Fellows, Research Career Development Fellows and International Senior Research Fellows), the vast majority report an intention to continue in academia post-award and our data show that the majority do continue their careers in academia.

### Support and mentorship

- Overall, the majority of final-year PhD students were happy with the level of support they received from their institution. However, some would have liked more career development advice, particularly for careers outside academia.
- Current Sir Henry Wellcome Postdoctoral Fellows report high levels of mentorship, training and career development support and current Research Career Development Fellows report adequate support for their needs, tending to be more independent in their approach but also seeking out support when required.

# Wellcome Trust Four-year PhD Programme students (2003/04–2009/10)

12. Established in 1994, the Four-year PhD Programmes are the foundation of the Trust's science schemes. The Programmes aim to provide high-quality in-depth and specialised postgraduate training to the brightest graduates in biomedical and public health sciences embedded in excellent research environments. The training of the future generation of scientists is paramount to ensure capacity and a pipeline of researchers able to deliver discoveries and breakthroughs. Recipients of PhD funding are therefore a priority group to track.
13. Key innovations which have helped to transform the graduate experience for basic scientists were the inclusion of a first year of laboratory rotations and taught courses in the PhD Programmes, to enable students to make a more informed choice of PhD research project and supervisor(s), and the provision of attractive student stipends and realistic research costs.

## Final-year PhD student career intentions and motivations

14. When asked what their main motivation was for undertaking their PhD, the most common responses were their interest in research (24/73) and desire to pursue a career in academia (20/73); this is consistent with findings from previous years. Final-year students also reported high levels of satisfaction with their PhD studies to date.
15. Overall, the vast majority reported receiving a great deal or fair amount of support in terms of mentorship, training and career development during their award. Students commented positively on the career development advice available at the Wellcome Trust final-year PhD students' meeting. However, a small number of students provided some critique of the quality of their mentorship, reporting that some mentors did not have enough time for them and that there was little career advice available from the college or university, particularly for careers outside of academia. Others reported that they would have benefited from more career advice earlier on. From the *Risks and Rewards*<sup>7</sup> report we know that students do not necessarily plan their careers from the start of the PhD and therefore would benefit from more guidance on career options

earlier on in their PhD. Taking this into consideration, the annual Wellcome Trust final-year PhD students' meeting has been moved forward and is now held earlier, at the start of the academic year.

*"Whilst PIs are keen to help you scientifically and enjoy the fruits of your labour (scientific output, labour) they tend not to care if you want to pursue non-academic careers. It is important to allow students to undertake alternative training during their PhD if they are to succeed overall."*

Final-year PhD student (intending to work outside academia)

*"My supervisor has been a great source of support with regard to both my PhD project and my future career. She has encouraged me to do what I enjoy and has been honest about the reality of an academic career."*

Final-year PhD student (intending to work in academia)

*"In terms of career development, it's only now that I'm beginning to realise how many options there are to consider even staying in academia: sure, do a postdoc, but where? Same area? Should I aim to learn a new technique? Should I move towns/countries? Am I competitive enough for independent early-career fellowship? ... I feel that a little bit more training/career guidance in how to proceed would be very useful, especially before the final year of WT-PhD programmes."*

Final-year PhD student (intending to work in academia)

16. Not surprisingly, a good PhD experience correlates with a greater propensity to pursue a career in academic research. Most students (45/75) expressed an intention to take a first position in academia once they finish their award. The most common reasons for continuing a career in research were a passion for science, the flexibility of academic settings, and possibilities of working abroad.

*"I like the flexibility of an academic setting."*

Final-year PhD student (intending to work in academia)

17. As in previous years, the reasons for choosing to work outside academia included the offer of greater stability and a career structure with a permanent position, compared with the short-term postdoctoral contracts and the perception that the only career route in academia was to

<sup>7</sup> Ipsos MORI. Risks and Rewards: How PhD students choose their careers. Ipsos MORI; 2013. [wellcome.ac.uk/stellent/groups/corporatesite/@sf\\_central\\_grants\\_admin/documents/web\\_document/wtp053947.pdf](http://wellcome.ac.uk/stellent/groups/corporatesite/@sf_central_grants_admin/documents/web_document/wtp053947.pdf)

aim to be a Principal Investigator. Another frequently given reason for choosing alternative careers was the acute pressure to publish in order to succeed. However, some also reported a desire to pursue a career that would have a more tangible and immediate ‘real-world impact’.

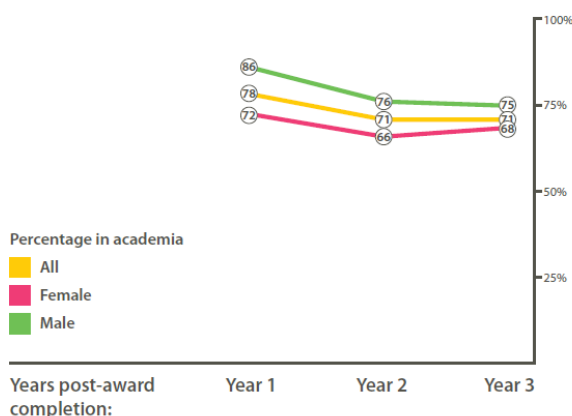
*“I feel like such a tiny piece of the puzzle in academia and in medical research in particular - I find the gap between basic research and useful medical contributions too wide to convince myself I’m making a positive impact.”*

Final-year PhD student (intending to work outside academia)

### Career destinations and progress of PhD cohorts 2003/04–2005/06

18. The first three PhD cohorts (2003/04–2005/06), a total of 200 students, have been on the BSCT for at least three years past the end of their studentship. This presents an opportunity to start analysing their career paths over time.
19. Of those whose first position is known (147), a substantial majority (78%) took a first position in academia. This fell to 71% (106/149) three years post-award. Despite similar numbers of men and women receiving funding, the percentage of men in academia was higher than women across all three years’ post-award. However, interestingly, the initial gap between men and women (86% of men in academia compared with 72% of women in the first year after their award) diminishes over time (see Figure 1).
20. The Wellcome Trust destination data compare favourably to a recent Vitae analysis of UK doctoral graduates<sup>8</sup>, which showed that 57% of UK **biological** sciences doctoral graduates were employed in research occupations three years after PhD completion (43.2% in higher education; 13.4% in research and development) and 45% of UK **biomedical** sciences doctoral graduates were employed in research occupations three years after PhD completion (36.5% in higher education; 8.6% in research and development).
21. The Trust figures are also slightly higher than those for first destinations of the London Research Institute’s PhD students, approximately 65% of whom take up postdoctoral positions upon PhD completion<sup>9</sup> (compared to 78% of Trust-funded PhD students).
22. Of the 29% of former PhD students working outside of academia three years post-award, just over three quarters were still working in science- or health-related fields, primarily in the pharmaceutical or biotechnology industries. Others were working in consulting, patent law, technology transfer, finance, insurance, software engineering and business intelligence. Most reported they were using their scientific knowledge and the skills developed during their PhD training.

Figure 1



<sup>8</sup> Vitae. What do researchers do? Early Career Progression of Doctoral Graduates. Vitae; 2013. [vita.ac.uk/impact-and-evaluation/what-do-researchers-do](http://vita.ac.uk/impact-and-evaluation/what-do-researchers-do)

The Vitae analysis is based on responses to a survey and therefore does not cover all doctoral graduates.

<sup>9</sup> <https://web.archive.org/web/20121025233605/http://www.london-research-institute.org.uk/jobs-and-education/graduate-students/where-our-students-go-next>

# Wellcome Trust and National Institutes of Health Four-year PhD Students (2009/10–2010/11)

23. This scheme was launched in partnership with the NIH in 2006, funding up to five studentships annually; so, while the cohort in the BSCT is still relatively small (12), they provide a valuable benchmark for the Four-year PhD Programmes. These four-year studentships allow graduates to participate in an excellent international interdisciplinary collaborative doctoral training programme in biomedical and public health research. Students normally spend two years in their UK (or RoI) host laboratory and two years at the NIH host laboratory. Another difference from the PhD programmes is the absence of formal, defined first-year training rotations.
24. We located 11 of the 12 Wellcome Trust and NIH PhD Studentship recipients. Seven had completed their PhD training, six of whom were continuing their careers in academia – five in the UK and one in the US. One was working in the pharmaceutical industry in the US and still carrying out basic and applied research.
25. All students in the final year of their PhD reported having a positive PhD experience. Three out of the four also reported receiving a good or fair amount of mentorship, career development and training directly related to their research. Two students were not fully satisfied with their NIH mentors, but at the same time praised career development opportunities offered at the NIH.

*“I received equal mentorship and input from my UK mentor and NIH mentor, the UK mentor was positive and effective, the NIH mentor was negative and ineffective. While at the NIH I received interesting and engaging career development opportunities, the career development opportunities in the UK were less interesting and less engaging.”*

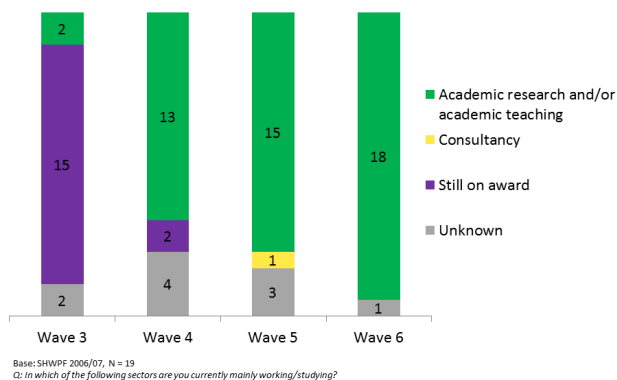
Final-year WT NIH PhD student (intending to work outside academia)



# Sir Henry Wellcome Postdoctoral Fellows (2006/07–2009/10)

26. The Sir Henry Wellcome Postdoctoral Fellowship scheme was launched in 2006 to help the most promising newly qualified scientists start developing their independent research careers above and beyond what is normally possible through a traditional postdoctoral position. These four-year Fellowships are designed to enable talented postdoctoral researchers to gain experience in excellent research environments around the world. The nature and quality of the first postdoctoral position is critical and tracking this exceptional group will allow us to monitor the effectiveness of this type of support at this critical stage in their career paths and, over time, provide important benchmark data.
27. Almost all former Fellows are employed in academia (44/46) and launching independent research careers, with 28 out of 41<sup>10</sup> receiving funding as a lead applicant and 15 funded as co-applicants. They reported that they enjoy academic research and their independence. Figure 2 shows the employment sector of the 2006/07 cohort over time.
- “By consistently publishing in different research environments I’d proved to myself that I might be competitive enough to continue as an independent researcher.”*  
Former Sir Henry Wellcome Postdoctoral Fellow (working in academia)
28. We are also beginning to see indications of career progression among former Fellows in academia, with the numbers from the earlier cohorts employed in senior positions increasing over time through each wave. Eight former Fellows had secured permanent positions.
29. Similar views to PhD cohorts were raised about ‘making it’ in academia, primarily a perceived lack of long-term job security. In addition, short-term contracts have been described as “demoralising” – forcing researchers to spend time applying for funding instead of focusing on research outputs and not allowing them to take the necessary time for high-quality creative science. Related to this, the absence of a guaranteed position was felt to be particularly stressful at a stage of life when many might want to settle down and therefore want more security in terms of income, e.g. buying a house, having a family.
30. Interestingly, given the geographical flexibility offered by the scheme, of those still in academia, the majority returned to the UK (32/41), three chose to be based in the US, three in Germany and three in other countries (Australia, Netherlands and South Africa). As the BSCT continues, we will be able to gain further insight into the mobility patterns of all the researchers included.

Figure 2



<sup>10</sup> Funding information is unknown for three former Fellows in academia, who were located via web research.

# Research Career Development Fellows (2002/03–2009/10)

31. The Research Career Development Fellowship scheme was launched in 1994 for outstanding postdoctoral scientists who wanted to consolidate their postdoctoral training and build their own UK (or RoI)-based independent research career addressing an important biomedical and/or public health question. The Fellowships were for candidates with between three and six years' research experience from the date of their doctoral viva.
32. This group has been tracked since the start of the BSCT and currently includes 157 individuals. Insights gained on their career trajectories and progress form an important part of assessing and evaluating the effectiveness of this type of support in building their independent research careers. In 2011 this scheme (for the UK only) and the 'biomedical' Royal Society University Research Fellowships were subsumed by the Sir Henry Dale Fellowships, funded in partnership with the Royal Society. This new scheme will continue to support outstanding postdoctoral scientists who want to build their own UK-based independent research career addressing an important biomedical and/or public health question. We will continue to track Research Career Development Fellows through the BSCT (the final cohort was awarded in 2012); Sir Henry Dale Fellows will be added when the first cohort is in its penultimate year (in 2016).
33. There has been very little movement between sectors of employment over the six years of the BSCT, with almost all former Fellows remaining established in academic careers (102/105). This is not surprising given the nature of the cohort and their career stage. Of the former Fellows working outside academia, two are employed in the biotechnology or pharmaceutical industries, and one is pursuing a career in medicine/healthcare.
34. We also continue to see indications of career progression among former Fellows in academia, with the numbers from the earlier cohorts employed in senior positions increasing over time through each wave (although numbers are small). While these data suggest that men are employed in more senior positions than women, the number of women in the cohort is particularly small, and no firm conclusions can be drawn at this stage<sup>11</sup>.
35. Former Fellows have been successful in securing funding post-award. 73 were receiving funding as a lead applicant or on a fellowship, 45 as a co-applicant, and 25 through a grant held by someone else.
36. When asked about what they perceived to be the benefits and challenges of the working culture in academia, former Fellows cited benefits including enjoying the largely self-directed intellectual freedom of enquiry and a sense of intellectual community, being part of international collaborations and in a stimulating environment.
- "Science is a passion for me so I have the privilege to work with something I love. I think academic culture is a lifestyle that one chooses. Bonuses for me are freedom, flexibility, diverse work tasks, getting exposed to different cultures and meeting and working with intelligent and interesting people."*  
Current Research Career Development Fellow (post-award intentions unknown)
37. However, in line with concerns raised by cohorts at an earlier stage in their careers, a small number highlighted challenges including uncertain career stability, diminishing funding opportunities, increased competitiveness and culture of self-promotion.
- "The need to spend time and energy protecting your ideas from others and making sure that your contribution is reflected correctly in terms of authorship for example. I think that effective collaborations can be difficult to achieve as so much depends on publications that academics often become publication-greedy and can't be trusted! I also believe that the culture does not encourage effective 'mentorship' as academics are under pressure to push their own agendas and fight for funding and publications, and the science often gets forgotten."*  
Current Research Career Development Fellow (intending to continue in academia)

<sup>11</sup> Wellcome Trust. Review of the Research Career Development Fellowship scheme. Wellcome Trust; 2014. Unpublished.

## International Senior Research Fellows (2001/02–2007/08)

38. The International Senior Research Fellowship scheme supported outstanding postdoctoral scientists establishing their scientific careers in Australia, New Zealand, South Africa, India and central Europe (Czech Republic, Estonia, Hungary and Poland).

*the world has to deal with instead of retreating into a beautiful new theory; Lack of understanding that theoretical or academic issues seem absurdly ethereal to non-academics in the 'real world'.*

Former International Senior Research Fellow (working in academia)

39. Wave 6 revealed the career stability experienced by former Fellows, with the majority continuing to be employed in senior academic positions (31/56 were professor/head of department or equivalent; nine were associate professor/reader) and the majority of those in academia having secured permanent positions (32/54).

40. Former Fellows have also been successful in securing funding: 36 reported that they were receiving funding as a lead investigator and were leading independent research careers. There has been little movement between countries, with the majority remaining in the country in which they were based during their Fellowship.

41. With very successful career paths to date and freedom to chart the direction of their work, the former Fellows highly praised the academic career for the satisfaction of transferring knowledge to a new generation of scientists, possibilities of collaborating with academic colleagues across the world and carrying out stimulating work. There is also a common sense of social mission, of serving society and pursuing knowledge that may help others.

*"A strong academic culture nurtures and protects independent thinking, as well as promoting the flow of ideas through openness combined with fierce curiosity. You know you are in a good place when you are surprised and delighted on a daily basis; when you look forward to meeting others for the pleasure of sharing ideas; when you can watch revelations spread across a crowd of student faces."*

Former International Senior Research Fellow (working in academia)

42. The former Fellows were also critical of some aspects of academic life, such as bureaucracy, the struggle to secure finances for research projects, and internal politics.

*"Not as different as we would like to imagine in terms of the pettiness of career-climbing and competition; Can be removed from the problems of everyday life that the rest of*

# Research Career Re-entry Fellows (2010/11–2011/12)

43. Research Career Re-entry Fellows have been tracked on the BSCT since 2013 (wave 5) and therefore the cohort is small. The scheme, introduced in 1994, fills an important niche in the funding landscape by providing support for up to four years to former postdoctoral scientists who want to recommence a scientific research career after a continuous break of at least two years. This group represent a unique and distinct cohort, with varied histories – some with experience in other sectors of work as well as academia – and therefore insights gained on their career trajectories and experiences will be very useful.
44. In wave 6, three Fellows (still on award) and six who had finished their funding period took part. All except one of the former Fellows were based in the UK. Four out of the six continued to pursue a career in academia, one was not working due to family reasons and one was employed as a consultant developing PET/MR imaging instruments. Interestingly, one former Fellow returned to academia after their previous employer went bankrupt and they could not find a suitable replacement job in industry.
45. While all the respondents reported that they enjoyed working in academia and appreciated the intellectual freedom offered by doing research that they did not find in the wider job market outside of research, they also recognised a number of challenges of working in academia. These included the academic culture favouring established ‘stars’ and (echoing comments by some of the PhD cohort) the perception that an element of pure ‘luck’ was required to work on the projects that get published in high-impact-factor journals. In addition some mentioned issues around credit and recognition, such as not receiving credit for their research work or lack of recognition for non-research activities such as teaching and training. One person mentioned age discrimination and the lack of acknowledgement for expertise and experience compared to other fields of employment.

*“I enjoy working on simulating, challenging, and cutting edge research ideas. I appreciate working with interesting people. I have developed critical and communication skills, and other transferable skills.”*

Former Research Career Re-entry Fellow (working in academia)

*“Short term contracts. The fact if a researcher has great ideas they can’t apply for funding. More often the PIs take the credit for your discoveries. Often academics are conservative and like to stay in their comfort zone.”*

Former Research Career Re-entry Fellow (working in academia)

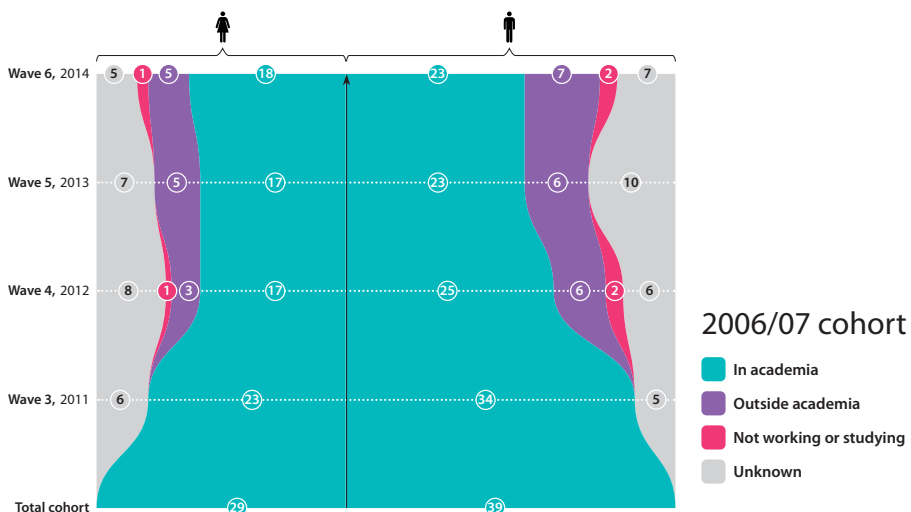
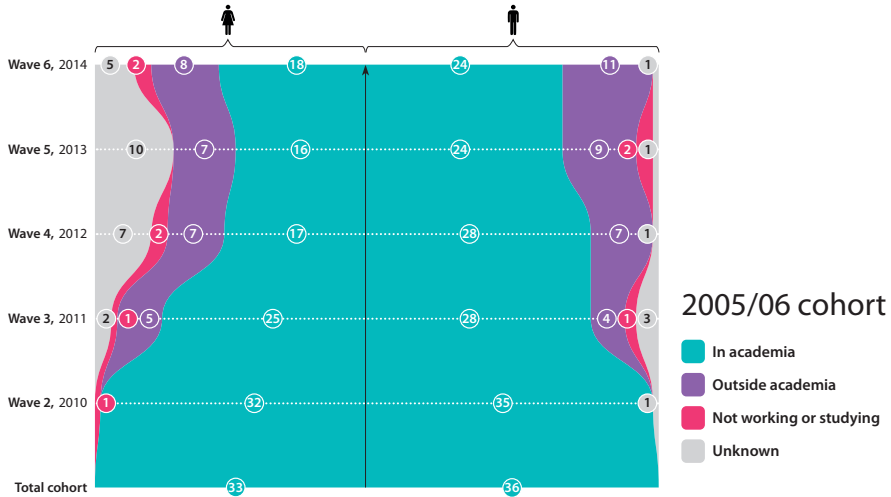
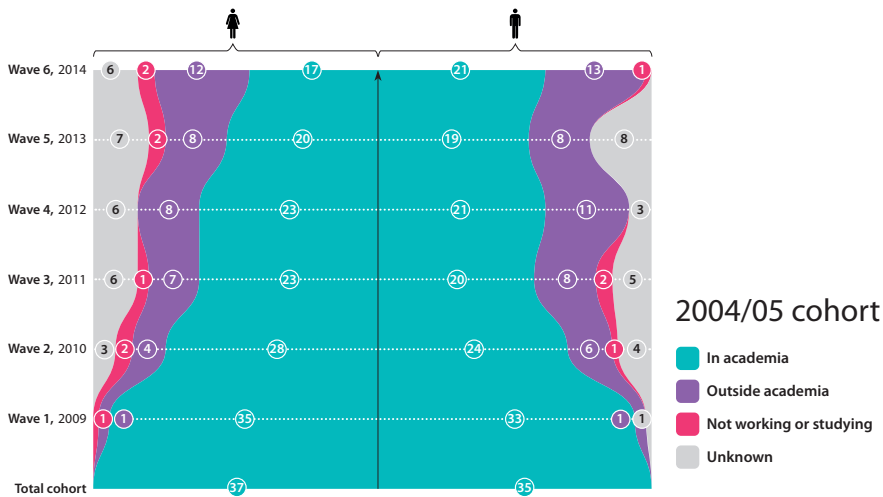
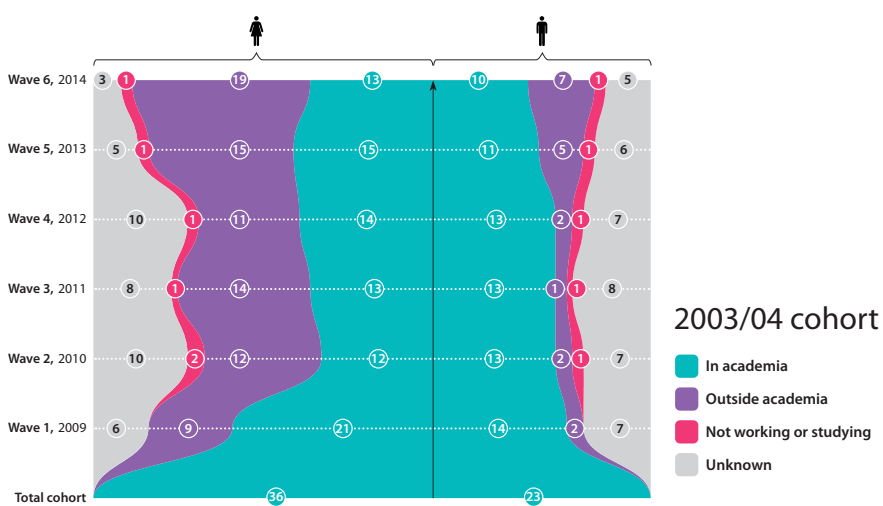
46. As Research Career Re-entry Fellows could give us a unique insight into the workings of the science community, we may conduct further qualitative studies to explore returning to academia. Given the unique nature and size of the cohort, all alumni will be invited to take part in the next wave of the Tracker.

## Next steps

We intend to build the trend data further over time and produce more analyses of the differences and similarities in career destinations according to the funding type received and stage of career for our researchers, creating an increasingly robust evidence base – not only to support our assessment of the value and impact of Wellcome Trust funding for research careers and capacity, but also to support wider debates around the value of careers in science. We are also exploring the implementation of similar tracking methods with other funders, which could provide important benchmarks and support analysis of the broader context.

# Appendix

The Wellcome Trust Data Trees provide a pictorial representation of four PhD cohorts who started their awards between the years of 2003/04 and 2006/07. The Data Trees examine the relative proportions - by gender - of those in academia or outside.



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