

# OPTIONS AFTER YOUR PHD Career KnowHow Series

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# Options after your PhD

# 1. Academic jobs

Find out whether an academic career is for you. What does an academic job involve, what will it take to get a first post and how can you progress your career?

# Academic roles and responsibilities explained

The work of an academic typically combines research, teaching, administrative and leadership responsibilities. The balance of time spent on each of these roles will depend on the type of institution and the nature of the post, and will change at different stages of your career, particularly if you take on a leadership role.

Most academic posts also include duties such as making applications for funding, attending conferences, building collaborations with other institutions and taking part in knowledge transfer activities with business and industry. Administrative tasks typically range from the preparation and design of courses, setting examinations and marking, through to attending meetings and involvement in policy decisions. Supervision and management of fellow researchers and teams is also a key element of an academic's work, particularly as you progress to more senior posts.

# Skills and characteristics needed for an academic job

- Passion for your research: you will need to be enthusiastic about what you do, have a desire to contribute original knowledge to your field and instil this passion in everyone that you teach, supervise and communicate with.
- Organisational and time management skills: the academic workload is heavy and varied, requiring you to manage your time and priorities effectively.
- People and networking skills: a key part of your role is to build relationships within your department and research groups, including supervising students and researchers. You will also need to build your network of academic peers nationally and globally.
- Communication skills: as an academic you will be continually writing reports and grant applications, and delivering lectures and presentations.
- Willingness to work long and flexible hours: the academic workload is large and you need to be prepared to put in the hours to get through it all.

- Administrative skills: with the large amount of paperwork, meetings to organise, students' work to mark and grants to write, you will need excellent administrative skills.
- **Self-motivation:** academics are required to manage their own workload and to take responsibility for their own self-management and motivation.
- Team-working: you will be frequently asked to contribute to activities that are beyond your own research, but are for the greater good of the department or the university.

#### Career progression

For early career researchers, progression to a first post after completion of your PhD varies depending on the discipline area you are working in. A PhD may be followed by a postdoctoral research associate position, and then a lectureship, although in some disciplines it may be possible to obtain a lectureship after completing a PhD. Roles such as teaching fellow, research fellow, senior research fellow, senior lecturer, reader and professor may follow, depending on your aspirations and what opportunities are available.

In the sciences, the typical career path requires the completion of two or three postdoctoral research positions, usually followed by an independent research fellowship. Then, subject to a good publications record, you may apply for a lectureship, where promotion to senior lecturer, reader and professor may follow.

Promotion is predominantly based on research performance, with some account taken of teaching and administrative responsibilities. However, the emphasis will differ depending on if your role is primarily teaching, research or knowledge transfer based. Institutions will typically have set criteria for academic promotion.

# Average salaries:

Postdoctoral researcher: £28,000 - £36,000
Independent research fellow: £32,000 - £44,000

• Lecturer: £36,000 - £45,000

• Senior lecturer: £46,000 - £54,000

Reader: £46,000 - £56,000Professor: £55,000 plus

#### Improving your chances

- **Publish:** you will be judged on your publications record so make sure you publish as much as you can, in the highest quality journals.
- Gain teaching experience: by getting involved with tutorials and lecturing.
- Network: make sure that you know, and have met, the big names and potential collaborators in your field.

- Be passionate about your research: make sure you can say why your research is original, important and fundable.
- Develop administrative and management skills: take on responsibilities such as managing project students, holding a budget or sitting on university committees.

#### Finding a job

There are many dedicated job websites that advertise opportunities, including:

- Jobs.ac.uk: the most comprehensive website for academic jobs in the UK.
- Find a PostDoc: postdoctoral research positions.
- PostdocJobs: postdoctoral research positions and fellowships.
- Times Higher Education Jobs: jobs in the higher education sector.
- <u>UK Research and Innovation</u>: UK Research and Innovation has been created as a result of the Higher Education and Research Act (HERA) with the UK's seven Research Councils, Innovate UK and Research England coming together. Includes links to fellowships and funding opportunities.
- Research Professional Jobs: adverts for both academic and non-academic jobs.
- CareerEdu: international academic job board
- The Chronicle of Higher Education: US academic job board.

You should also consult journals relevant to your research area as well as individual university websites. If you have identified a certain research group at a university, check their own job page regularly and try to arrange a visit to the group.

Networking and using professional, work or educational contacts is a common way to find a job in academia. Being known in your field and letting contacts know that you are looking for a job can put you in a strong position to find out about hidden vacancies and job opportunities before they are advertised. You will find useful contacts through:

- Your department: many academics circulate information about postdoctoral research positions, fellowships or lectureships to their colleagues at other universities.
- Your supervisor: who is likely to put you in touch with their network of contacts and will be aware of grant proposals. Your supervisor may also have contacts outside of academia.
- Your connections in other universities: keep in touch with contacts you make when attending conferences and collaborating on research projects.

#### Useful links on other websites:

- An Academic Career tips and suggestions for entering an academic career
- Beyond the PhD a career resource for arts and humanities researchers
- <u>Vitae</u> information and resources for the personal, professional and career development of doctoral researchers, including skills training and events
- AGCAS has a report with advice on getting your first lecturing post.

### 2. Jobs outside academia

Consider the options available if you are looking to work outside of academia. What are employers looking for and how can you improve your chances and succeed in the job market?

#### Where can I work?

A PhD is recognised by employers across a range of sectors as a sign that you will bring a distinctive skill set to their organisation. There are also opportunities where your subject-specific skills and knowledge will be in demand. Do not, however, limit yourself to applying for jobs which specifically require a PhD. Unless a PhD is a prerequisite for the job, employers won't necessarily mention it in their advertisements.

Sectors and types of work likely to match the skills and aspirations of PhD graduates include:

- Education (teaching): opportunities to gain relevant teaching qualifications and to teach your subject in schools or to lecture in a further education (FE) college.
- Education (administrative and professional roles): non-teaching roles in universities and other educational institutions. In universities, for example, PhD graduates are valued for their administrative skills and understanding of the research environment.
- Public Sector: roles within the Civil Service, government agencies and local government where you can use your analytical, research and Communication skills
- Industry research and development: opportunities exist to continue your research in commercial and industrial environments, for example in the medical, pharmaceutical and engineering sectors.
- Healthcare sector and medical research: the health sector is a relatively common destination for PhD graduates who wish to continue or build on their area of research in the NHS or public research institutes.

- Consultancy and think tanks: your ability to work on projects and to devise novel solutions to problems are valuable in a range of management consultancy and policy analysis contexts, such as business, finance, technology and IT.
- Publishing: the analytical and writing skills developed preparing papers and writing a thesis are essential skills for the publishing sector. You may be well-placed for editorial roles.
- Intellectual property (IP): jobs are available for science, engineering or technology PhD graduates who are looking to put their skills in lateral thinking and writing into practice, in roles such as patent attorney.
- Entrepreneurial activities: whether developing a spin-out from your PhD or doing something completely new, the independence, problem-solving and creative-thinking developed during your PhD mean that you may be suited to starting your own business.
- Business and Finance: jobs are available in areas such as investment and retail banking, insurance and pensions. Specialist quantitive and statistical training and high-level analytical and communication skills are particularly valued.

Although some jobs which attract PhD graduates offer a relatively high starting salary, this is not always the case. A significant number of posts which are open to both first degree and PhD graduates will have the same starting salary for all new employees. Once in post, there is typically scope for PhD graduates to progress to management and senior management positions.

**Skills and characteristics which are attractive to employers** Employers will be looking for evidence that you can demonstrate competency and achievement in relevant skill areas, for example:

- analytical thinking and problem-solving abilities
- ability to bring new ideas, curiosity and innovative approach to the organisation;
- ability to solve complex problems
- project management and organisation skills
- leadership potential
- ability to work independently and in a team
- excellent communication and client facing skills
- motivation and the ability to meet deadlines.

#### Improving your chances

- Work experience, internships and placements: completing some kind of
  work experience can help you gain relevant skills, practical experience and
  contacts for your chosen career path. Employers will want to see that you
  have had experience in environments outside of academia.
- **Mentoring:** find yourself a mentor, ideally someone who is working in the field you are interested in. They will talk through your options, help with decision making and provide you with an insight into their work.
- Work on campus: paid work can provide extra income during your research and help you gain a range of skills and experience. Teaching experience, for example, can provide valuable transferable skills even if you do not stay in education beyond your PhD.
- Taking on leadership roles and other responsibilities: whether it is captain of a sports team or heading up a student-led committee, these activities will provide you with concrete evidence that you have achieved in leadership roles.
- Raising your profile: consider how to get yourself known in circles outside of academia through, for example, setting up a blog or presenting at conferences relevant to the sectors you wish to work in.
- Networking: build contacts and widen your networks by connecting with people in the area of work you are interested in. Be systematic about keeping records of people you have met and use professional networking sites, for example LinkedIn, to stay in touch.

# Finding a job

There are various job sites that can be used to find employment:

- PhD Jobs: job vacancies for doctoral graduates
- <u>Times Higher Education Jobs</u>: for academic and non-academic jobs in higher education
- <u>Jobs.ac.uk</u>: includes non-academic higher education jobs
- Specialist sites relevant to your employment area, for example <u>Nature</u>
   Jobs and <u>NewScientist Jobs</u>
- Job websites of major newspapers.

#### Other sources for finding job vacancies include:

- Professional associations: organisations relevant to your employment area may advertise job opportunities, for a list of bodies see Total Professions: Profession Finder
- University careers service: many employers contact universities directly to advertise their positions
- Specialist recruitment agencies: you can search for relevant ones at Recruitment and Employment Confederation (REC) and Agency Central.

# Applying for non-academic posts

For non-academic posts, you need to sell your PhD and broader experience to potential employers. Demonstrate your competence, skills and achievements in line with what they are looking for. Examples include:

- Problem solving: the whole essence of your PhD is about problem solving, and you will have developed a set of strategies for analysing a problem and approaching its solution in various ways
- Project management: don't forget that your PhD is a large project with many elements and calls on your time. Give specific examples of the tools you used to manage this project and its multiple priorities
- Time management: techniques you used to manage your time efficiently during your studies
- Management of self and others: techniques you have used to manage yourself and make yourself more organised
- Communicating with different people: giving lectures or tutorials, taking part in outreach programmes, giving presentations at conferences or to your research group all require different methods of communication
- Networking: meeting people at conferences and other events means that you have some networking skills. Talk about how you keep a record of who you have met and how you follow it up
- Writing skills: outline the different kinds of writing you've done: journal
  papers, thesis, progress reports and anything else you've been involved
  with, such as communicating with the media and the public
- Understanding and analysing information quickly: as a researcher, you will come into contact with a huge amount of data and will become skilled at understanding and analysing it quickly.

#### Useful links on other websites

- <u>Vitae: doctoral careers outside higher education</u> for more areas of work of interest to PhD graduates outside of academia
- <u>Vitae: what employers look for</u> insight into the experiences, attitudes and recruitment practices of employers in relation to doctoral graduates.

# 3. Research and professional training

Your education, learning and training doesn't have to stop with your PhD qualification. Explore your options for further research in your field or consider professional training in another role or sector. What are your longer term career ambitions and what is required to get there?

#### Postdoctoral research

For many subject areas, more especially science and technology, postdoctoral research is the next step for an academic career or to strengthen a research profile with a view to move into industry.

In a postdoctoral research position, you will be expected to show more independence, taking full responsibility for the project. You may also take on additional roles such as the supervision of research students and the management of staff. You are also likely to get involved with the writing of research proposals and administrative tasks such as representing researchers on university committees, not to mention publishing papers.

Postdoctoral research opportunities are less common in the fields of arts and humanities.

If you are an early career researcher or academic, you may wish to take advantage of training and development opportunities at your university that you didn't have time for during your PhD. This could include a teaching qualification for higher education, or research tools and techniques you would like to utilise.

#### Vocational and professional training

After completing your PhD you may decide that you want to make a significant change in career, requiring further vocational training or professional education.

This could involve further study either full time or part time. Some examples you could consider include:

- Teaching: undertake the one year Postgraduate Certificate in Education (PGCE) that leads to a career in teaching. School-based Routes are also available
- Social Work: complete a two-year Masters degree in social work to qualify as a social worker
- Legal professions: qualify as a barrister or solicitor. You can take a law conversion course (the Graduate Diploma in Law). This one-year course allows you to convert to a career in law irrespective of your existing qualifications. Passing the law conversion course entitles you to move on to the Legal Practice Course (LPC), if you want to become a solicitor, or the Bar Professional Training Course (BPTC), if you wish to train as a barrister.

- Accountancy: is another option and involves studying for professional qualifications on the job
- NHS management: working for the National Health Service (NHS) is another option and postgraduate vocational qualifications are available for graduate management trainees
- Health professions: graduate entry is possible for medicine and other health professions
- Civil Service fast stream: some of the policy and analytical roles will require you to do further relevant training and qualifications
- Patent attorney: working while studying for the examinations set by the Chartered Institute of Patent Attorneys (CIPA).

#### Useful links on other websites

- British Association of Social Workers
- Chartered Institute of Patent Attorneys (CIPA)
- Civil Service Fast Stream
- Get into Teaching
- LawCareers.Net
- NHS Careers

#### 4. Other information

## Useful Books in Careers & Enterprise and/or University library:

- How to Get a PhD (by Estelle M. Philips and Derek S. Pugh)
   a handbook for students and their supervisors
- Moving on in Your Career (by Lynda Ali and Barbara Graham) a guide for academic researchers and postgraduates. Also available as an e-book via the University Library Catalogue
- A PhD is Not Enough! (by Peter J Feibelman) a guide to survival in science
- The Academic Career Handbook (by Lorraine Blaxter)
- How to Write and Publish a Scientific Paper (by R. A.Day)
- Managing Your Academic Career (by D. Royce Sadler)
- Creating A CV: A Guide for Postgraduate Research Students which includes example PhD CVs is <u>downloadable</u> here
- Social media can be a useful source of information. Twitter has numerous relevant hashtags e.g. #phdchat and there are groups on LinkedIn such as PhDs outside academia.

#### Career events available to Salford PhDs

- Programme of career development workshops/events <u>via SPORT programme</u>
- Occasional career workshops organised by Vitae (national organisation working for research students and staff)
- Careers and Enterprise also <u>runs career development events</u> for all our students which you can take advantage of.
- Salford students are welcome at other regional and national recruitment events <u>Graduate Prospects</u>

#### Other useful websites for Researchers

- Graduate Prospects A comprehensive website for UK graduates; it includes detailed information about different kinds of occupations, advice on job search and advertises graduate vacancies. There is also a specific section for PhD students – Your Ph D ... What Next?
- Target Another comprehensive website with information about about
- career pathways and options for PhDs but for graduates generally.
- <u>Shinton Consulting</u> Specialist information and resources written by a Careers Adviser and former contract researcher.
- Social Research Association A forum for people working in a diverse range of settings and in different subject specialities related to social research. It includes a "careers in research" section.
- <u>Higher Education Academy (now part of AdvanceHE)</u> Site with useful resources for all academic disciplines – also organises numerous professional development activities.
- Resources for disabled researchers available on the Vitae website.
- <u>Universities UK</u> Representative body for all UK Universities:
- Science careers includes personal development planning tool for Science PhDs.
- <u>Thesis whispererblog</u> with lots of advice for researchers (including careers).
- <u>Bioscience careers</u> specialist site for Bioscience graduates and researchers.

#### **Researching Employers**

Here are some other sources to get you started in researching some of the most popular non-academic sectors for PhD graduates.

- <u>Palgrave Macmillan</u> A useful place to start if you are interested in academic publishing, as Palgrave Macmillan are global academic publishers
- Association of Independent Research and Technology Organisations Seeks to encourage technology transfer and exploitation by helping to
  develop and support government and private sector initiatives. Website
  includes a members directory
- <u>Innovate UK</u> Government body tasked with supporting innovation and development in business
- MrW eb Information on market research online. Also includes industry news and job vacancies
- PRW eek Includes job section along with company listings and news and events
- Charity Choice A charity directory, searchable by category
- <u>EuroBrussels</u> European affairs jobs in Law, Economics and Politics, in Brussels, EU institutions and international organisations
- Health Protection Agency Useful for those interested in working in the health sector. Includes information on current research and research positions, council jobs by role, location Users can search for jobs within salary bands
- Oultwood Local Government Website Index Searchable by country, this is a website made up of databases of local government, government papers and documents, and general research information
- <u>Local councils</u> This website is a portal to all the Councils in the UK. Users can search for jobs within any council, by job role, location and salary bands
- <u>Biotechnology Yes</u> Innovative competition to raise awareness of bioscience among PhDs and contract research staff. The "Careers" section has a list of relevant companies and Research Councils
- <u>European Industrial Research Management Association</u> a hub of companies that undertake research and employ researchers in Europe. EIRMA exists so that companies can improve the management and organisation of their R&D and innovation activities
- <u>EuroScienceJobs</u> Job vacancies in EU institutions and agencies and international organisations such as CERN, WHO and FAO.
- <u>Max-Planck Gesellschaft</u> Society for the Advancement of Science a non-profit organisation that promotes and supports research.
- <u>Sanger Centre Laboratory</u> Genome research institute mostly funded by the Wellcome Trust, includes a list of contact details for biotechnology companies.

Job vacancies and postdoctoral positions:

- American Medical Writers Association (AMW A) Organisation that provides advice and support to medical writers based in the US. Includes information on training and a vacancy database
- <u>European Medical Writers Association (EMWA)</u> Organisation that supports medical writers in Europe with training and career development. Includes a jobs vacancy database
- <u>Executech</u> Recruitment and jobs in healthcare communications, pharmaceutical marketing and clinical research
- <u>PharmiW eb</u> A useful website for jobs within the pharmaceutical industry, where users can read up on employers and browse recruiter profiles, as well as apply for jobs and host their CV online. Also useful for industry news
- Wiley Job Network This organisation is a supporting body to the pharmaceutical industry. It contains a job vacancy database where users can host their CV online, browse employer information and apply for jobs
- <u>Natcen</u> National Centre for Social Research. Useful for general information and news and events
- <u>EURAXESS</u> An initiative to encourage the mobility of researchers within Europe
- <u>National Council for Voluntary Organisations (NCVO)</u> Information about and links to GB think tanks in the UK
- <u>National Institute for Research Advancement (NIRA)</u> Includes a world directory of think tanks, research organisations and public policy
- <u>Policy Library</u> Social, economic and foreign policy resource updated daily
  with the latest jobs, research, and events. Its members reach an audience of
  hundreds of thousands of policy makers, politicians, academics and
  students. Includes World Think Tank directory
- Trade Unions Has a comprehensive list of trade unions in the UK
- <u>NatureNet</u> Useful as it provides links to the websites of several wildlife and environmental protection agencies
- Science careers includes online resources for science researchers.

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