

## Your PhD...What Next?

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### Your PhD: Job market

Research suggests that a postgraduate qualification often increases your chances of employment but does not guarantee it. A survey by the The UK GRAD Programme (<http://www.grad.ac.uk>) analysed the career destinations of PhD graduates from 2003 to 2005, tracking the labour market for those with research degrees. This is the most recent research available and the report suggests that a PhD will have a positive impact on both your future career and your salary.

PhD graduates can offer a great deal in today's knowledge-based economy where highly skilled people are in demand. However, a PhD in itself is no guarantee of higher-level entry into employment, or of a higher salary. Whether recruiting within education, research or industry, employers seek personal skills, qualities and work experience, in addition to academic achievement. See [what employers want](#) to find out why a PhD alone is not enough.

In 2005, the UKGrad Programme analysis published in **What Do PhDs Do?** found that:

- 80% of UK-domiciled PhD graduates entered the workplace;
- 3.6% were unemployed six months after graduating (compared with 6.2% for graduates with a first degree and 4.2% for MSc graduates);
- 50% were employed in the education sector, including 22% in teaching and also 22% in postdoctoral research;
- 14% took up research careers outside academia.

The report demonstrates that a PhD can take graduates beyond academia and research, with PhD holders transferring their high-level skills into a wide range of sectors. For example:

- 6.1% of PhDs became health professionals;
- 4.5% made a career in engineering;
- 3.9% went to jobs in business and finance;
- 7% entered commercial and public sector management roles.

When you are researching for a PhD, you naturally tend to focus down on your research. But when considering your career options, it is often beneficial to do the opposite. Thinking laterally about your career options, and increasing your awareness of employers and the opportunities they offer, will often reveal opportunities for career development you have never considered before.

Employers value skills in research, communication, consultancy and commercial awareness. Develop these and the job market will be more welcoming than if you merely present yourself as an academic.

[Careers in academia?](#) and [a career outside academia?](#) should help you to decide which sector your own career path will begin in.

## Your PhD: Careers in academia

If postgraduate study has whetted your appetite for an academic career, you may be considering lecturing or research posts.

Before deciding, bear these points in mind:

- Academia is a very competitive market where motivation and commitment are essential.
- Because of the way research is funded, there are very few permanent research posts. Most are offered as fixed-term contracts.
- Lecturing involves research and administrative duties as well as teaching.
- Earning prospects are not what attract academics. According to the University and College Union (<http://www.ucu.org.uk>), starting pay is around £22,300 for junior researchers and around £28,300 for new lecturers. Professorial pay starts at £51,000, but it is rare to reach this level before the age of 40. These figures compare favourably with graduate earnings in some professions, but fall well short of salaries in medicine, law, business and consultancy.

Do you have the motivation and commitment for a career in academia? Ask yourself the following questions (and give honest answers):

- Do you want an academic career because you have a continuing passion for your subject?
- Do you want to pass on your knowledge to other learners and do you have the patience and communication skills to do that well?
- Are you only staying in academia because it is a familiar environment?
- Are you sufficiently dedicated to put in the effort necessary to progress in an academic career?

## The academic lifestyle

### Working hours

Be prepared for long working hours. Lectures take much longer to research and prepare than to present.

### Competition and pressure

*'Bidding for research grants and ensuring the delivery of high quality research within tight deadlines are a constant feature of the job. **Senior lecturer, pharmacology**'*

*'Academics are expected to produce international-class research, to teach ever larger classes, to assume highly responsible administration roles and to do all of this within very tight time constraints. **Lecturer, geography**'*

### Job satisfaction

*'There is still some degree of academic freedom in higher education. My work is extremely stimulating and rewarding, especially research collaborations. I try to be an innovative teacher and enjoy meeting mums and dads on graduation day. **Senior lecturer, pharmacology**'*

## Increasing your chances of having an academic career

Are you still keen to proceed? Taking the following steps will enhance your prospects.

## **Step 1: Get experience to develop relevant skills**

In addition to your PhD research, try to get experience of supervising undergraduates, perhaps as a tutorial assistant, contributing to courses and lecturing, publishing research papers, assisting with administration - e.g. organising a conference or seminar programme, applying for research funding.

## **Step 2: Get your first post**

Academic posts are often advertised on Jobs.ac.uk (<http://www.jobs.ac.uk>), HE institutions, the Times Higher Education (<http://www.timeshighereducation.co.uk/>) Supplement (THES), and The Guardian (<http://www.guardian.co.uk>) websites. They are often filled by networking and through internal advertisements within individual institutions. A speculative approach to academic departments may be worthwhile. Ensure your academic-style CV emphasises all the right points - see [example CVs](#).

## **Step 3: Train to develop academic skills**

HE institutions now run courses for new lecturers that lead to Associateship of the Higher Education Academy (<http://www.heacademy.ac.uk>). It is increasingly important that you complete this training, which may be available at your university, before getting a lectureship.

## **Step 4: Publications**

Producing publications is essential for career progression. Aim for journals with recognised national or international status in your field.

- Take advantage of staff development courses in your institution on writing for publication. Seek advice from a mentor or other experienced researchers before sending off a submission.
- Initially, you are more likely to succeed if you are co-author with a person or team with an established reputation.

## **Step 5: Research and project funding**

Attracting funding is a high priority for departments. A successful track record in securing awards will help your career.

- Source funding opportunities. The THES and individual research councils (see [contacts and resources](#)) are a good place to start.
- Your institution may run courses on writing successful bids.
- Start by assisting in preparation for a bid by a researcher with a successful track record.
- Submit draft bids for internal scrutiny by an experienced researcher before sending to a funding body.

## **Step 6: Teaching experience**

Unless you want to continue to be a researcher on short-term contracts, teaching experience is essential.

- Actively seek out lecturing and tutoring opportunities.
- Volunteer for evening classes or tutor support for distance learners.
- Explore options outside your department, perhaps at the Open University (OU) (<http://www.open.ac.uk>), or a nearby university, college or adult education centre.
- The Higher Education Academy provides a database of resources, which includes teaching resources and advice.

Remember that teaching involves preparation as well as delivery time but is often paid only for contact time. Don't over-commit yourself!

## **Step 7: Project management**

Meeting project deadlines on time and within budget is just as important in higher education as it is in industry. Experience of project management can enhance your promotion prospects.

- Develop your project management skills by keeping progress logs and budget accounts for your work.
- If difficulties arise, tackle them at an early stage to demonstrate your problem-solving abilities.
- Gain extra experience of project management by supervising undergraduate projects.

## **Step 8: Quality assessment**

Higher education is accountable for public expenditure through quality audits of teaching and research. Getting involved in an audit is a useful experience.

- Audits are cyclical, but you may have been in a department that was audited when you were a student or staff member. Reflect on that experience and learn from it for future audits.
- Visit websites of auditing bodies, such as The Quality Assurance Agency for Higher Education (QAA) (<http://www.qaa.ac.uk>), to become familiar with their measures.
- Volunteer to help towards an audit by compiling some of the data required and attending preparatory briefing sessions.
- After an audit, ask someone involved in it to talk you through the process and outcomes.

## **Step 9: Understanding higher education issues**

Take an interest in the wider higher education community.

- Attend staff meetings and briefing sessions.
- Read departmental, university and funding bodies' newsletters.
- Read minutes of committee, faculty and management meetings.
- Keep track of recent developments by reading the THES and professional journals in your field.

## **Step 10: Network**

- Develop a network of contacts. Use it to keep up to date on trends in higher education, discover vacancies and collaborative research projects.
- Participate in conferences, present papers and meet people.
- Join academic societies and professional bodies and attend their events.
- Volunteer for administrative roles or committees.
- Maintain cross-disciplinary contacts.
- Volunteer for working parties open to new staff.

## **Your PhD: A career outside academia?**

### **Planning strategy**

If you prefer a career outside academia, the work may relate to your PhD studies or simply use the skills you have gained. Skills and knowledge gained by studying for a PhD are valuable and transferable to other employers. You should ask yourself:

- what areas of your knowledge and skills you want to use in your job - see [develop your skills](#);
- what motivates and interests you;
- which kinds of organisations might be of most interest and relevance to you.

Organisations involved in research, analysis and consultancy are important recruiters of

PhD holders, who can work on projects as independent self-starters. They include:

- research parks;
- contract research organisations;
- management consultancies;
- banks and large businesses.

Or you may want to consider setting up your own business or working freelance. Have a look at [self-employment](#).

Here are three alternative strategies for deciding what to do with your life:

### **‘I know what I’m good at. What jobs could I do?’**

If you prefer the analytical approach and are looking for inspiration, try [what jobs would suit me?](#). This computer guidance package may throw up some options you hadn’t considered. Completing the questionnaire may help you think about the skills you want to use in a job and what motivates and interests you.

### **‘What types of jobs are out there?’**

In addition to browsing vacancy information, have a look at careers literature to find out what different jobs involve, what qualifications and experience are required, salary levels, career development opportunities and more. This can be a great way of conducting a feasibility check. How realistic is a move to a particular area of work, given your background and constraints? [Explore types of jobs](#), is a good starting point. Your university careers service may also have relevant books and other occupational literature.

### **‘I know what I’m interested in. What jobs could I do in this field?’**

If you want to work in a specialist field, using contacts (networking) to explore the job market is often the most productive route. Not only is this likely to give you a real insight into career areas about which information is sparse, but it may also uncover job opportunities that are never advertised. The key to doing this effectively is never to ask directly for a job but rather to request information. For further details, see [finding vacancies](#). You should also look at [industry insights](#) for an overview of job sectors and the occupations available within these fields.

Consider talking to a careers adviser to help you think through your options. Another useful resource is [What Do PhDs Do?](#).

## **Your PhD: What employers want**

Are you, or will you soon be, a research student applying for a job? You already possess a high level of intellectual skills and a portfolio of key transferable skills that you have developed as part of your life, previous studies and work experience.

There are jobs where research skills are paramount in the academic community (and elsewhere), but PhDs also fill jobs where a PhD is not an essential qualification. If you want to maximise your chances and choices, you need to make the most of the opportunities presented during your PhD studies to develop yourself as a whole person.

The new style four-year integrated PhD offered by some 30 universities offers the usual research training plus development in areas such as management, entrepreneurship, commercial and other transferable skills, but most PhDs now have access to good skills training.

Look at these comments from recent PhD students about the skills gained during their

study period and how they use them in their work:

*'A key aspect of research, which I employ daily, is the ability to express key arguments clearly and concisely, both orally and in writing. **PhD, Education'***

*'Analytical and problem-solving skills that I picked up in my degree and developed throughout my PhD, often help to relate unique client situations back to the technical requirements to ensure the appropriate treatment is presented to the Board of Directors. **PhD, Chemistry'***

*'In my job in the students' union, my PhD experience turned out to be surprisingly relevant: I drew on teaching experience to design and deliver new training materials; being a recent graduate helped me communicate and build trust with the students and officers I was supporting; and independent learning was a great preparation for independent working. My experience as a student rep during my PhD taught me that there is more to higher education admin than filing. **PhD, Music'***

Employers seek recruits with 'hard' skills such as knowledge, ability with foreign languages and IT skills.

But they also want people who display strong 'soft' transferable skills including teamwork, commercial awareness, good written and verbal communication and problem solving.

One of the best ways to find out what employers are looking for is to read the careers and vacancies sections of their websites or access their job adverts in relevant publications and on recruitment sites such as Jobs.ac.uk (<http://www.jobs.ac.uk>). Some professional bodies also advertise jobs on their websites. This gives you a good starting point in understanding what they expect from candidates. Making personal contact is likely to be more beneficial. By talking to someone in the organisation, especially someone you know personally, you may get some work experience, or work shadowing. This will reveal the things they don't tell you on their website: the pace at which people work, the hours, how people communicate within the organisation and its ethos.

## **Your PhD: Develop your skills**

Take an honest look at your skills.

- What are your skills?
- Where is the evidence that you have applied them successfully?
- How have you developed them?
- Can you identify any gaps - skills that need development?

Once you have done this, you can examine how to make the most of the skills you already have and develop those you need. A skills checklist will help you with this exercise. See [action plan](#).

There are many opportunities available, through your own department and more widely, to supplement your experience of being a PhD student. Play an active, diverse role rather than focus on a single minded pursuit of your research alone.

## **Skills training for PhDs**

Most universities now have a programme of training that is offered to PhD students. At its best it includes training specifically related to your research, such as:

- research techniques;
- writing research papers;

- making technical presentations;
- issues related to patents.

It may also address other areas, such as:

- assertiveness,
- time management,
- negotiating,
- effective communication
- project management.

Some of this training is provided through the The UK GRAD Programme (<http://www.grad.ac.uk>), which organises both national and local events. In HE institutions it is usually provided through the Graduate School and amounts to about two weeks of training every year.

The UK Grad Programme operates nationally and through a network of six regional hubs, offering a wide range of interactive events designed specifically for research students to support personal development and teamwork skills. Activities include national and local Grad schools lasting between one and five days focusing on case studies, skills development and career management sessions, plus shorter Grad courses from one hour to two days, often designed to meet the needs of the institution. 'Careers in Focus' events cover specific employment sectors and workshops where you can join in online, ideal for students out on fieldwork or based in small departments.

In 2008, the programme is being reassessed and new developments are expected, so keep up to date by checking the UK Grad Programme website for details.

## **Demonstrating/teaching**

In teaching departments, research students are essential in supporting undergraduates. In addition to the obvious benefit of earning you some money, demonstrating and teaching will develop your people management skills, particularly through assessing learning and giving effective feedback. Teaching also develops your ability to talk about your subject area to a different group, which will improve your communication skills and prepare you well for discussing your research with a range of people at interviews.

## **Committees**

All academic departments and institutions have committees with student representation to address issues such as teaching, research and student welfare. In addition to developing your communication and negotiating skills, participation will give you a broader view of the way in which your department is managed - a useful insight if you intend to stay in academia. It can also be a good way to learn about the structure and nature of formal meetings and may even serve as a mechanism for changing the way research students are treated or perceived in your department.

## **Supervising research**

Increasing pressure on academics and more senior researchers has led to many research students being given responsibility for the day-to-day supervision of students (at undergraduate and Masters level) on research projects. This presents an opportunity to learn how to manage research effectively, to develop effective research skills in others and to develop your own skills in providing advice and encouragement.

## **Conferences**

Research conferences are not just a series of lectures and a chance to browse the work of other researchers. They are the primary mechanism for the research community to meet, make new contacts, develop potential collaborations and improve understanding of the context of research. If you are planning a career related to the research you have done for your PhD, conferences are an opportunity to meet potential employers or at least talk to people who are working in different research environments. Don't waste the opportunity to impress them, learn more about their work and take away valuable networking contacts.

## **In the profession**

Whatever the nature of your research, there is likely to be a relevant professional body or learned society offering support and information to researchers in the field. It is worth investigating the professional body most relevant to your studies if you intend to build your career in research or a related area. In addition to your PhD, you may be able to begin assessment towards professional membership, which will require you to demonstrate your professional skills as well as knowledge. Many professional bodies offer assistance to young researchers, either through financial support for travelling to special events or conferences, or through bursaries for relevant events.

## **In the workplace**

There are several ways to gain genuine insight into a career or particular employer. The best is to spend some time in their working environment. Your research may involve spending time (often months) in a different setting related to your funding. You can use this opportunity to investigate the career paths of other researchers or to gain insight into other opportunities. If your studies don't include a placement and you don't have time for other part-time work, you can still talk to potential employers or visit them to get more information about specific careers of interest to you. Many university careers services and alumni offices have databases of alumni or local contacts who are willing to discuss their work. Some may even be ready to offer work shadowing for a half or full day.

## **At the Students' Union**

As an undergraduate you may have been involved with student societies or voluntary work. These often provide excellent opportunities for skills development and there is no reason why you cannot continue these activities while working towards your PhD. Research students are often able to make a far greater contribution than undergraduates because they offer continuity from year to year and may already have several years' experience at the university. Depending on the nature of the society you are involved in, you may develop skills in organisation, communication, chairing meetings or taking minutes, marketing the society to students, negotiating sponsorship or managing the finances.

Your involvement may even help you to make the transition into a career. Effective time management may be needed to fit these activities into a busy life and most employers look for well-rounded applicants who have interests beyond their research.

## **Your PhD: Who employs PhDs**

Don't just think of major household names and multinationals. Large firms often outsource much of their work, so investigate small and medium-sized businesses (SMEs) who employ technical specialists, consultants and people who can provide a service.

## General sources of employers

- *Your contacts* are a key resource for discovering suitable employers, especially if you want to be a research specialist or are looking to change career.
- *Specialist websites* which include jobs for PhDs - see [contacts and resources](#) for details.
- *Careers services* receive recruitment information from major and local employers which is usually accessible on their websites.
- *General recruitment information on firms' websites* can be helpful. If the information seems to be for new graduates, it still pays to check it out. Employers usually welcome applications from PhDs even if they don't explicitly say so.
- The UK GRAD Programme (<http://www.grad.ac.uk>) organises careers fairs for PhDs and other useful events may be arranged by your careers service, your department, a professional association or a commercial organisation. Fairs, presentations, courses and workshops are a great chance to talk to employers directly. Do your preparation and ask pertinent questions to make a strong impression. This is also a chance to test their attitude towards PhD holders. For a list of forthcoming careers fairs in your region or specialist area, refer to [careers fairs](#).
- *Business directories* provide a lot of clues. Turn detective and think which types of products or services may use your area of knowledge. Refer to business directories such as Kompass (<http://www.kompass.com>), available in reference libraries and online. They won't tell you whether an employer is recruiting but will alert you to potential employers you may have been unaware of.

## Employers in your research field or a specific location

- *Use contacts* made through people in your department and at conferences to look for appropriate employers in your research field.
- Many *professional bodies and trade associations* hold membership lists available to the public on their websites. Some offer local networks, regional meetings and events, which can be an excellent way to make contacts in your field. Investigate whether they operate low cost 'student membership' and get networking!
- *Internet news groups or mailing lists* for your subject often have links to pages of jobs and employers in your subject.
- *Your university library* will have resources for researching employers. There are many directories and databases of who is researching, publishing, patenting or doing anything newsworthy in your subject area.
- If you are considering working in a specific location, check to find local employer information at Business Link (<http://www.businesslink.gov.uk>). Local public libraries may also hold chambers of commerce and business directories containing employers' contact details.
- *Careers services* may publish directories of local employers.
- If you are looking for a job using your specialism in a fast-moving commercial environment with a growing organisation, consider *local science or business parks*. Information on science parks is available from the United Kingdom Science Park Association (UKSPA) (<http://www.ukspa.org.uk/>) and on technical contract research from the Association of Independent Research and Technology Organisations (AIRTO) (<http://www.airto.co.uk/>). Your PhD may be ideal technically but you must demonstrate awareness of the commercial and operational aspects of the business.

## Your PhD: Finding vacancies

Use several job search strategies to increase your chance of success. Don't ignore the hundreds of advertised vacancies out there, whether in publications such as New Scientist (<http://www.newscientist.com>) and The Guardian (<http://www.guardian.co.uk>), or other online sources. Speculative applications need to be targeted and require a certain amount of luck.

Another approach is to post your CV on one of the internet job websites and wait for

employers to contact you. Some academic departments organise these for PhD students. This can be effective if your skills are in short supply, though employers usually prefer you to contact them. If you are looking for a job directly related to your studies, want a place on a recognised scheme with a major employer and have some strong qualifications, skills and experience, there is every chance that these approaches will pay off.

## **Hidden vacancies**

Many jobs are not advertised. Employers often rely on contacts and some incentivise staff to introduce new recruits. When an employer has a vacancy, it is often easier for them to consider first someone they have met recently who could possibly do the job. Personal contacts account for a large proportion of the jobs that are filled without advertising, so the importance of networking should not be underestimated. For further information see [job hunting tips](#).

## **Advertised vacancies**

### **Your university careers service**

If employers are looking for a new postgraduate, they often advertise through university careers services, most of whom post vacancies on their websites.

### **Your department**

If your research is in a sought-after specialism, employers may target your department. Keep an eye on both undergraduate and postgraduate notice boards for adverts or invitations to employer presentations.

## **Specialist journals, magazines and professional associations**

If you are looking for a job in your specialist subject, you should know which journals or professional association magazines to look in. If you want to change fields, ask someone already in that field for tips on where to look for a job. Professional bodies and trade associations sometimes have vacancy pages or careers information on their websites.

## **National press**

Be aware that national newspapers advertise different job sectors on different days of the week. Make sure you know which newspapers advertise jobs in your chosen field and when. Graduate Jobsearch Online (<http://www.strath.ac.uk/careers/graduatejobsearch/>) has details of the most commonly used publications.

## **Internet**

The wide range of web-based job sites includes PhD Jobs (<http://www.PhDjobs.com>) (specifically for PhDs) and Jobs.ac.uk (<http://www.jobs.ac.uk>) for academic roles. Subject-specific jobs pages are often found on sites based around a specialism or the websites of professional associations.

## **Agencies**

Employers ask agencies to find candidates who match the employer's requirements exactly, including the skills, knowledge and experience needed to be effective in the job from day one.

- Find local agencies in the Yellow Pages (<http://www.yell.com>) or the Thomson Local (<http://www.thomsonlocal.com>).
- Keep an eye on agencies that relate to your research specialism. They often advertise in professional journals.
- Agencies usually accept speculative CVs.
- Telephone first to see if they deal with people of your background.

## What vacancies are there for PhDs?

When looking for vacancies, treat it as an information-gathering exercise. Unless a PhD is a prerequisite for the job, employers won't necessarily mention it specifically in their advertisements. In a survey of 80 major graduate employers, over 95% were happy to receive applications from postgraduates, though more than 90% did not specifically advertise this. Most assumed that postgraduates would realise they were included in any 'graduate' vacancies.

PhD holders are often sought when the job involves research, analysis, writing, teaching or consulting. Examples include:

- PhD-level graduate required as senior research and analysis consultant for a global research company. The role encompasses consultancy, marketing and development, with exposure to local and global markets.
- PhD, from any science discipline, as conference researcher. The job involves investigating technical and strategic developments and trends in the broadcast technology sectors and developing them into full conference programmes for an international company.
- A PhD physicist required to review the marketing strategy of a Midlands-based glass company.
- PhD in maths, finance or physics with strong IT skills to join a multinational finance company as a junior maths developer to support and expand their existing products.
- PhD in a biomedical science to train as a medical writer. In addition to excellent technical qualifications, candidates should demonstrate a high level of energy and enthusiasm and an interest in drug development.

Surveys by the Association of Graduate Recruiters (AGR) (<http://www.agr.org.uk>), suggest that many, but not all, employers are generally prepared to pay a premium for PhD graduates in the region of £2,500 p.a.

## When should I start looking?

Some recruitment in the public sector and large companies is cyclical and follows an annual scheme, but most recruitment takes place on the basis of need and is ongoing.

You should start looking for suitable vacancies at least a year before completing your PhD, especially if you are unsure which area you want to work in or are attracted to sectors such as lecturing, teaching, the civil service, financial institutions or the legal profession.

In other areas, start at least three months before you want to be employed.

The key to effective job seeking is to be clearly focused; know exactly what sort of post you want and be able to relate your knowledge, skills and experience to the employer's needs.

## The graduate recruitment cycle

Even if you don't want a typical graduate job, you can use the graduate recruitment cycle to gain access to large firm employers. The cycle starts with campus presentations in the autumn. Your university department or careers service will be able to tell you what's coming up.

## What if I need a job quickly?

If you are about to graduate and need to find a job very soon, draw up a job seeking strategy.

- Keep scanning relevant journals, bulletins and websites for adverts.

- If you have specialist skills that are in short supply, try a relevant agency.
- Talk to all your most obvious contacts - tell everyone you know what you are looking for and keep in touch with postgraduates and academics from your department.
- Try well-targeted speculative letters.

If none of these approaches produces a result soon enough, you may have to consider taking a stepping stone or temporary job while you keep searching. If you need to take a job just to keep solvent, consider part-time or shift work so you have time available during the day to look for jobs and attend interviews. Also see [job hunting tips](#).

## Your PhD: Applying for jobs

When you start to apply for jobs and go for interviews, always consider the skills an employer is seeking in a potential employee. Use a skills table which notes the evidence that you have certain skills to answer questions on the application form. Emphasise that you have the skills required by highlighting them in your CV. When asked why you want to work for that particular employer, consider what you have in common with their organisation. It might be:

- knowledge or expertise in an area they work in;
- experience of their industry;
- an understanding of their clients, location and international operations.

Research their website to find out what you have in common and mention these things in your cover letter.

Prepare well for interviews. Research the employer thoroughly. Look the part. Appear confident. Smile. Be positive. Show interest in what they do. See [applications, CVs and interviews](#) for more information.

## Your PhD: Example CVs

CVs of PhD students and graduates will differ according to their intended purpose and audience. See the examples below for an idea of what style to adopt for your CV.

- [Science PhD graduate keen to gain an academic post](#)
- [Science PhD graduate applying for a commercial position](#)
- [Arts and humanities PhD graduate seeking an academic post](#)
- [Arts and humanities PhD graduate wishing to demonstrate their skills](#)
- [PhD graduate pursuing a graduate position outside science](#)
- [Psychology graduate wishing to demonstrate his skills to employers](#)

## Your PhD: Further study

A PhD should give you excellent training as a researcher - developing your skills, thinking independently, managing your project, communicating with other researchers, presenting your findings - but most professions you take up afterwards will need more training and often a professional qualification.

## Post doctoral research

If you go on to post-doctoral research, you may be involved in multidisciplinary work and need to develop your understanding of other areas of knowledge. Your work may become more quantitative and it might be necessary to improve your skills in statistical techniques. Skills in project management, supervision of budgets, writing and presenting academic papers, preparing proposals for research funding and supervising technical assistants will all need to be developed.

## Academics and teaching

University lecturers are now expected to undertake a period of part-time training, usually within their employing institution, to develop skills in lecturing, tutoring, assessment and making funding applications. This training leads to Associateship of the Higher Education Academy (<http://www.heacademy.ac.uk>). Once this is obtained, you can progress to the higher levels of fellow and senior fellow.

If you wish to teach in a state school or a college of further education you will need to obtain qualified teacher status (QTS). You can do this by training on the job or taking a full-time nine-month course.

## The professions

Many PhDs go into health-related jobs where a statutory qualification is sometimes required, e.g. a 'personal animal licence' if you need to do experiments with animals, and others if you want to become a clinical scientist. If you decide to join a consultancy, which may offer clients solutions to problems in management, technical, engineering, finance, market research or other areas of work, you will almost certainly expect to receive training in consultancy skills: writing proposals, calculating costs and time scales, making presentations to clients on how you would tackle their project, negotiating contracts, and writing reports.

In other walks of life, different qualifications are required. For example, to become a barrister or solicitor, if you don't have a law degree, two year's study at law school are required. To be a patent agent, study for the professional examinations is by self-study and on the job.

When researching your options, investigate the relevant professional body and the trade association of firms with an interest in that area of work. A professional qualification may be either a statutory requirement or essential for career progression. In some professions, such as marketing, a professional qualification may be an advantage without being compulsory. All areas of the finance sector need qualifications, either for admission to professional bodies or as legal requirements to establish the necessary levels of knowledge in regulatory affairs.

## Funding

Funding for further study and professional training often comes from your employer. Training may be provided on site by professional trainers, or by distance learning, attendance at part-time modular courses or full-time study.

Courses leading to QTS are state funded and maintenance grants may be available - refer to the Training and Development Agency for Schools (TDA) (<http://www.tda.gov.uk>) and the Department for Innovation, Universities and Skills (DIUS) (<http://www.dius.gov.uk>).

Training for the legal profession must be funded personally unless finance is forthcoming from a firm of solicitors or, rarely, a barristers' chambers.

For further information on funding see [funding my further study](#).

## Your PhD: Action plan

When you are gearing up to make the next step in your career it always helps to have a plan of action. You don't need to stick with it rigidly and you can change it as you progress.

Your action plan should cover:

- knowing yourself and what you want;
- researching your options;
- decision-making;
- thinking what else you need.

## Knowing yourself and what you want

This is where to start. People who start their job seeking without first deciding what they have to offer or what they really want usually end up having to start again. When you have thought hard about what you can offer an employer and what you want to do **then** you are in a better place to market yourself.

- Think hard about your strengths in both hard skills, e.g. languages and technical skills, and transferable skills, e.g. teamwork, initiative, organisation and problem solving. Remember that these skills are acquired in all your experiences, not just your research.
- What are you good at and where is the evidence for this?

Draw up a skills table and note the evidence that you have these skills:

- Teamwork
- Leadership
- Organisational
- Analytical
- Negotiating
- Communication - oral
- Communication - written
- Commercial awareness
- Attention to detail
- Managing projects
- Motivating others

Be sure to include all the things you are good at - these are your strengths.

Then:

- Consider your weaknesses. Think of them as areas for development and either take action to cover them or avoid jobs where they are significant. Make a list of skills you need to learn and those you would like to improve.
- Ask friends if they agree with you about your strengths and weaknesses. What can they imagine you doing in the future?
- Talk to a careers adviser for independent, unbiased, professional advice.
- Find people who are already in the job you are considering. Do they think you can be successful in it?
- Ask an employer for a voluntary placement or work shadowing experience.

## Researching your options

You may already have a clear plan of what you will do next, but perhaps you have been too focused to consider a range of options. The information here may have given you some new ideas. It is important to research each option thoroughly before making a firm decision. Details of many jobs and what they entail can be found in [explore types of jobs](#).

## Ask yourself:

- How have other PhDs from my department progressed their careers? What are they doing now? Can I gain any information and valuable advice by talking with them?
- Do I want my career to be directly related to my PhD topic - e.g. research, teaching, or to use my knowledge indirectly - e.g. patent agent, health and safety, editing, or simply use my generic skills - e.g. consulting, administration, marketing? There are a range of opportunities within these three options. Decide, if you can, which of the three options attracts you and then research the possibilities within each one.
- Which jobs suit my skills, interests, values?
- Whichever I choose, who will employ me? - Trade association directories can help here.
- Is there work available where I want to be? Openings for some jobs, such as librarian or teacher, are available everywhere, while others, such as nuclear physicist or marine biologist, are only offered in a few locations.
- Will the experience in my first post-PhD job make me more employable later? Where will it lead? Try to discover how people in your chosen career have progressed.
- Does it offer the rewards I am looking for? How much money do I need to live on? Will transport to work, accommodation in that area be affordable?
- Will I need to develop my skills, e.g. lecturing or take further courses of study or training? If so, how will I make this happen?
- Can I successfully pursue this career in my personal circumstances?

## Decision-making

- Having researched your options, decide on your first choice for action. When jobs in the area of your choice are very competitive, it may be necessary to have a plan B. It may be important to consider this, but don't allow it to interfere with your motivation for your main objective.
- Some people prefer to gather information, reflect on it rationally and decide on their own how they want to progress.
- Others prefer to talk through their ideas with others - colleagues, friends, careers advisers, someone already doing the job.
- Make a list of the pros and cons of each option or use SWOT analysis (assess the Strengths, Weaknesses, Opportunities and Threats of each option) and compare one option directly with another.
- Consider how you feel about each option, not just the facts. If your gut feeling is that you would not be comfortable with a particular course of action, way of life, or geographical location, this may well override all the facts that seem more objective.
- If others are affected by your decision, involve them in your decision making. When career moves may affect relationships or cause other people to move location or change jobs, there is much more to consider. In some cases children's schooling may be a priority.

## What else do you need?

When researching your options, you will identify skills you need to develop. Consider laterally how to do this.

- Lecturing experience may be available both inside and outside your university.
- Writing or editing experience can be acquired through professional and academic journals.
- Administrative experience can be developed by organising seminars and conferences.
- Tutoring students on a part-time basis can enhance your teaching experience.
- Your department or professional body may have committees you could join to develop committee work, taking minutes, etc.
- Discussions and networking with people working in the same field may be available through your professional body.
- Commercial or industrial experience can often be found with employers who sponsor

PhD students on Co-operative Award in Science and Engineering (CASE) schemes or with the commercial links of your academics.

- Training courses in specific skills, e.g. time management and effective communication are often available in your Graduate School.

## **Your PhD: Case studies**

### **Catherine, university lecturer**

Catherine started her academic career in the History Department at Warwick University. She followed her degree with an MA in Religious and Social History. Then she researched 'Colonial Early Modern England' for her PhD.

'After my PhD I began looking for an academic post but opportunities to teach in my area of history were few,' says Catherine. 'It took three years and 50 applications to get my present job as the American History specialist at Manchester Metropolitan University.'

I developed a portfolio career to keep me afloat financially. The department at Warwick was supportive and gave me the opportunity to teach North American History. I lectured the second year course in Colonial Social History, sometimes on an hourly basis and sometimes on a temporary contract. I also helped with the history provision in the adult education open studies centre. My teaching skills were developed by completing the Warwick Teaching Certificate which leads to Associateship of the Academic Academy.

Another part-time job was as a marketing assistant at jobs.ac.uk. I attended conferences for them and wrote articles for their site. My job seeking started with a scatter gun approach and became more focused with time. Only four or five jobs a year came up that were really what I wanted, but eventually my persistence paid off and I look forward to developing the American History provision at Manchester Metropolitan University.'

### **Christopher, pharmaceutical scientist**

'I researched biomarkers for my PhD in the Occupational and Environmental Health Department at Newcastle University,' says Chris Jones. 'Previously I had obtained a degree in chemistry and a Masters in Molecular Toxicology and Pathology at Leicester University. During my Masters degree, I had a placement in a pharmaceutical company and enjoyed the experience. It taught me a lot about drug discovery and toxicology and helped me decide to do my PhD in a related area of research.'

My PhD studies involved analysing blood and urine samples of Chinese workers who had been at risk of exposure to high levels of toxic chemical during their employment. The biomarkers (urinary metabolites, protein and DNA adducts) confirmed exposure to high levels of toxic substances, and these levels correlated strongly with physical symptoms including headaches and nausea.

When my PhD was nearing completion, I considered doing postdoctoral research in a university and opportunities were available for me to work in the USA. I was more attracted to employment in the pharmaceutical industry, partly because my placement experience had been positive and also because I enjoy industrial research and have access to the latest technology. The financial rewards and a permanent job are also an attraction.

Currently I'm employed by Astra Zeneca as a drug metabolism pharmaceutical scientist in Cheshire. I've been promoted to assistant team leader which involves, amongst other things, leading a small team of DMPK scientists to deliver in vitro metabolism data to support discovery projects. It's a challenging job which I find very rewarding.' DMPK is a multidisciplinary area, so individuals have varied backgrounds including biochemistry, biology, chemistry, mathematics and engineering.'

## Contacts and resources

### Publications

The following Graduate Prospects and AGCAS publications should be available in your university careers service.

### Graduate Prospects publications

[Prospects Directory](#), Annual Sept.

[Prospects Postgrad UK](#), Annual

*What Do PhDs Do?*, 2005

### AGCAS publications

*The Assessment Centre*, AGCAS Video,

*Big Opportunities in Small Businesses - Graduates in SMEs*, AGCAS DVD, 2005

### Other publications

*The Academic's Survival Kit*, [Sage Publications Ltd](#), 2004

*The Research Student's Guide to Success*, [Open University Press](#), 2006

### Websites

Arts and Humanities Research Council (AHRC), <http://www.ahrc.ac.uk>

Association Bernard Gregory, <http://www.abg.asso.fr/>

Association of Independent Research and Technology Organisations (AIRTO),  
<http://www.airto.co.uk/>

Association of Graduate Recruiters (AGR), <http://www.agr.org.uk>

Beyond the PhD, <http://www.beyondthephd.co.uk>

Biotechnology and Biological Sciences Research Council (BBSRC),  
<http://www.bbsrc.ac.uk>

Business Link, <http://www.businesslink.gov.uk>

Career Development for Research Students,  
<http://www.uclan.ac.uk/facs/class/cfe/postgrads>

Department for Innovation, Universities and Skills (DIUS), <http://www.dius.gov.uk>

ECM, high-tech recruitment specialists, <http://www.ecmselection.co.uk>

Economic and Social Research Council (ESRC), <http://www.esrcsocietytoday.ac.uk>

Engineering and Physical Sciences Research Council (EPSRC), <http://www.epsrc.ac.uk>

Find a PostDoc, <http://www.findapostdoc.com/>

Graduate Jobsearch Online, <http://www.strath.ac.uk/careers/graduatejobsearch/>

The Guardian, <http://www.guardian.co.uk>

Higher Education Academy, <http://www.heacademy.ac.uk>

Higher Education Researcher Development, <http://www.ukherd.org.uk>

Higher Education and Research Opportunities in the UK (HERO), <http://www.hero.ac.uk>

Higher Education Statistics Agency (HESA), <http://www.hesa.ac.uk>

Jobs.ac.uk, <http://www.jobs.ac.uk>

Kompass, <http://www.kompass.com>

Medical Research Council (MRC), <http://www.mrc.ac.uk>

National Postgraduate Committee, <http://www.npc.org.uk>

Natural Environment Research Council (NERC), <http://www.nerc.ac.uk>

Nature Jobs, <http://www.naturejobs.com>

New Scientist, <http://www.newscientist.com>

Open University (OU), <http://www.open.ac.uk>

PharmiWeb, <http://www.pharmiweb.com>

PhD Jobs, <http://www.PhDjobs.com>

PostdocJobs, <http://www.postdocjobs.com>

Prospects Postgraduate Directory, <http://www.prospects.ac.uk/links/Pgdbase>

The Quality Assurance Agency for Higher Education (QAA), <http://www.qaa.ac.uk>

RD Info, <http://www.rdinfo.org.uk>

Science and Technology Facilities Council, <http://www.scitech.ac.uk>

Thomson Local, <http://www.thomsonlocal.com>

Times Higher Education, <http://www.timeshighereducation.co.uk/>

Training and Development Agency for Schools (TDA), <http://www.tda.gov.uk>

The UK GRAD Programme, <http://www.grad.ac.uk>

United Kingdom Science Park Association (UKSPA), <http://www.ukspa.org.uk/>

University and College Union, <http://www.ucu.org.uk>

Yellow Pages, <http://www.yell.com>



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