AGCAS Survey - Getting the First Lecturing Job

AGCAS Research Staff Task Group

December 2014
Editors
Josie Grindulis  Cardiff University
Clare Jones    The University of Nottingham

Research team
The team are all members or former members of the AGCAS Research Staff Task Group and participated in a variety of tasks including project design, survey construction and report writing.

- Sarah Blackford, The Society for Experimental Biology and Lancaster University
- Anne Forde, University of Cambridge
- Katrina Gray, University of Glasgow
- Josie Grindulis, Cardiff University
- Clare Jones, The University of Nottingham
- Calum Leckie, UCL (University College London)
- Sharon Maguire, The University of Edinburgh
- Jane Pooler, Imperial College London
- Jane Simm, The University of Sheffield

Thanks to:
Academic staff at the 22 UK universities who responded to the *Getting the First Lecturing Job* survey.

Further thanks to:

- Academic colleagues at Cardiff University, The University of Nottingham and The University of Sheffield who assisted with their advice at pilot stage and questionnaire design.
- Elizabeth Wilkinson at The University of Manchester for her advice and support.
- Cardiff University for hosting the Bristol online survey.
- UK careers and employability services and staff development departments at UK universities for their assistance with distributing publicity about the survey amongst academic staff.
- Gemma Green, Sarah Nichols and the AGCAS team in Sheffield for assisting with the final design of the report.

Publication date: December 2014

© Content licensed to AGCAS

To view the terms and conditions for the material provided in this publication, please see:
www.agcas.org.uk/disclaimer
FOREWORD

I am pleased to introduce this survey report and recommendations for researchers, academics, careers professionals and staff development managers. The findings shed light on a vital and widely-held ambition of researchers to develop their academic careers in UK higher education and the report makes an important contribution to consideration of the issues surrounding academic career development.

As part of delivering our mission, AGCAS conducts, gathers and disseminates research intelligence on higher education and the graduate labour market and publishes a wide range of employability-related materials. Careers professionals pride themselves in providing clear, unflinching and accurate 'occupational information' for their colleagues and clients. This report provides a detailed review of the main elements needed in this competitive and desirable career area.

The AGCAS Research Staff Task Group, who have designed evaluated and presented this report, are experienced careers staff currently working with PhD students and research staff. They also regularly contribute to national training and research initiatives with bodies including Vitae and Research Councils UK in the arena of researcher development.

The findings, coming as they do from experienced academics, many of whom had regular involvement with the recruitment of new lecturers, will be of particular value to those who are already on the academic career pathway, as well as those considering this route. The 'Researcher to lecturer model' set out in the report has been developed from the survey findings and provides a comprehensive overview of the role of lecturer and the career management approaches that can assist this career transition.

As President of AGCAS, I am well aware that many of our member services are already heavily involved in developing and delivering professional and very effective employability provision for our research cohorts. For some services this provision has been in place for many years but for others it may have been a relatively new introduction. Where it is offered, support is provided at a high quality but it would also be fair to say that this is a demanding area and most careers and employability services are constantly striving to fully meet researcher requirements.

In particular, there is the very real challenge facing research students and early career researchers in both entering and progressing within a career in academia. The reality is that many more members of these communities will wish to enter and progress onto this career path than there are opportunities available. With this intense competition in mind, this resource comes as a very welcome and much needed tool for researchers in their own career management and careers services and others in their efforts to help with this process.

Even beyond the research communities, this resource will not only provide an invaluable aid in helping undergraduates and taught postgraduates who are considering research study to gain a clear-eyed picture of the real challenges associated with pursuing an academic career, but will also provide a toolkit to help them make that decision as successful as possible.

All in all, a most valuable and welcome addition to the AGCAS resource bank.

Eluned Jones
AGCAS President and Director of Student Employability, University of Birmingham
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Introduction</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Rationale</td>
<td>4</td>
</tr>
<tr>
<td>1.2 Conduct and methods</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Respondents</td>
<td>4</td>
</tr>
<tr>
<td><strong>2. Key findings and recommendations</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Key findings</td>
<td>6</td>
</tr>
<tr>
<td>2.2 Recommendations to researchers – preparing to get your first lecturing job</td>
<td>6</td>
</tr>
<tr>
<td>2.3 Recommendations for other user groups supporting researchers’ career development</td>
<td>11</td>
</tr>
<tr>
<td><strong>3. Career components – experience, knowledge and attributes</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 Research</td>
<td>12</td>
</tr>
<tr>
<td>3.2 Teaching</td>
<td>21</td>
</tr>
<tr>
<td>3.3 Engagement and management</td>
<td>28</td>
</tr>
<tr>
<td>3.4 Attributes of lectureship candidates</td>
<td>33</td>
</tr>
<tr>
<td><strong>4. Career journey - planned and unplanned steps</strong></td>
<td></td>
</tr>
<tr>
<td>4.1 Length of time spent in research</td>
<td>38</td>
</tr>
<tr>
<td>4.2 Over ten years' research experience</td>
<td>39</td>
</tr>
<tr>
<td>4.3 Experience at more than one HE institution</td>
<td>41</td>
</tr>
<tr>
<td>4.4 Planned or unplanned career breaks</td>
<td>42</td>
</tr>
<tr>
<td>4.5 Impact of a period of work outside academia</td>
<td>43</td>
</tr>
<tr>
<td><strong>5. Communicating at interview</strong></td>
<td></td>
</tr>
<tr>
<td>5.1 Types of evidence</td>
<td>45</td>
</tr>
<tr>
<td>5.2 Personal presentation</td>
<td>47</td>
</tr>
<tr>
<td><strong>6. Changes over the past 10 years</strong></td>
<td></td>
</tr>
<tr>
<td>6.1 Research</td>
<td>48</td>
</tr>
<tr>
<td>6.2 Teaching</td>
<td>49</td>
</tr>
<tr>
<td>6.3 Engagement, management and administration</td>
<td>49</td>
</tr>
<tr>
<td><strong>7. Future considerations and research opportunities</strong></td>
<td>50</td>
</tr>
<tr>
<td><strong>Appendices</strong></td>
<td></td>
</tr>
<tr>
<td>Appendix 1: Survey questions</td>
<td>51</td>
</tr>
<tr>
<td>Appendix 2: Survey message to participants</td>
<td>52</td>
</tr>
<tr>
<td>Appendix 3: Selected detailed charts</td>
<td>53</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

1.1 Rationale
As careers professionals, our contact with researchers who are keen to develop successful academic careers has highlighted a need for clearer information and advice that will help them towards achieving this goal. The development of the survey Getting the first lecturing job by the AGCAS Research Staff Task Group aimed to provide evidence and insights into the role of lecturer in UK universities by surveying academics, as this role is viewed as the most important ‘next step’ in forging a sustainable academic career. This approach of consulting experienced professionals from a particular sector is utilised within higher education (HE) careers and employability services in order to provide authentic, practical and realistic information for those using our services. The AGCAS Research Staff Task Group is made up of careers guidance professionals employed by UK higher education institutions (HEIs). They all specialise in advising researchers on their career development and employability. In addition to researchers, it is hoped that both their managers and careers and staff development professionals will find the report useful.

1.2 Conduct and methods
The survey was run during autumn 2012 (14 October to 14 December) and analysed during 2013. It was administered using the BOS (Bristol Online Survey) with a mixture of qualitative and quantitative based questions, and distributed to potential participants in all UK HEIs through heads of careers and employability services, all of whom are members of AGCAS. The respondents were all experienced academic staff, anonymised details of whom are shown in section 2.1. The questionnaire and the invitation to participate are in Appendices 1 and 2.

1.3 Respondents
There were 172 respondents to the survey from 22 universities across mainland UK. There was a variety of size of university and all were research active. The respondents chose their disciplines from a drop-down list of categories as used by the Careers in Research Online Survey (CROS) 2011, and for the sake of simplicity these have been grouped into four main discipline groups in Figure 1.
Figure 1: Academic respondents

The level at which the respondent staff work as estimated by job titles is as follows in Figure 2.

Figure 2: Academic staff level

Senior staff were at professorial level, but in addition declared other specific responsibilities including, dean for research, faculty director, and professor and head of department. The "other" category included job titles of research fellow and subject leader. Of the staff respondents, 119 had direct experience of recruiting new lecturers in the previous five years.
2. KEY FINDINGS AND RECOMMENDATIONS

2.1 Key findings
The survey and outcomes from it provide a consolidation of evidence and insights from academics into the key aspects of development at the early stage of an academic career. It also offers insights into the increasing levels of competition facing academic researchers and some of the challenges that they will encounter in gaining their first lectureship. There are some discipline differences, which are highlighted when appropriate, but the main messages are relevant across the profession.

The key findings are:

- Candidates for lectureships need to demonstrate an independent research profile through:
  - The development of a publication record showing a consistent output of both increasing quality and impact.
  - Evidence of securing funding in competitive situations, or the potential to do so, through robust and realistic research plans.
- Evidence of teaching was identified as a key skill; however, responses varied from having positive attitudes to undertaking academic teaching to a range of specific concrete experience. Gaining a teaching qualification prior to appointment was not expected.
- Personal attributes such as teamwork/colllegiality, passion, commitment and enthusiasm were rated highly across all disciplines. Conversely, people management and other forms of management and administrative experience were not identified as key areas for new lecturers, although, interestingly, as in the final point below, these may be required at later stages.
- Career breaks or achieving a lectureship after ten years academic research experience were seen as extremely challenging, especially when viewed within the context of current levels of competition for jobs.
- Tips for communicating at interview were consistent with the survey outcomes on the importance of evidence coverage of research and teaching. They also reflected the need for interviewees to demonstrate the personal attributes cited above through good communication skills, being enthusiastic, the ability to deliver an inspiring research seminar and an awareness of matching the job description.
- Competition in academia was cited most frequently as the biggest change over the last ten years. This was linked to both securing research funding and obtaining an academic post.
- Once in post, new lecturers need to ‘hit the ground running’ and should expect to take on a wider range of duties, as well as continuing to develop their research and teaching profiles.

2.2 Recommendations to researchers - preparing to get your first lecturing job
As careers professionals, we often work with researchers at the point they are applying for jobs and their focus will be on the CV and interview. Career discussions at this stage can, for some candidates, show a lack of overall knowledge and insights about academic career requirements and evidence of missed training and
development opportunities which can undermine career progress and ultimately job applications. This section is intended as a practical guide and model for researchers and offers realistic approaches for those preparing for a lecturing job. It promotes an approach of personal engagement by the individual which is clearly stated within the Concordat to Support the Career Development of Researchers, Principle 5: "Individual researchers share the responsibility for and need to pro-actively engage in their own personal and career development, and lifelong learning."

Introducing the 'Researcher to Lecturer' model

**Academic Journey**

Recognise where you are in terms of career stage or role (research assistant, associate or fellow) within your academic journey. Reflect on your experience and skills and make an estimate of where, with blue skies overhead, you would like to be in five or ten years in career terms. Remember that the HE sector will change and so will your ideas.

- For those in the early stages, there are many choices to make and many opportunities in the first years of academic work, but it is never too early to move forward. Use role models and profiles as sources.

- For academics with over ten years of experience in postdoctoral research and intending to apply for lectureship positions, take a realistic view of your career journey to date, include the positive aspects of extended experience, explore alternative options and take independent advice.

- Those who are considering a career break should take the positive suggestions in this report – having publications in the pipeline, keeping in touch with your research and being clear on relevant policy information on such things as career breaks or funding opportunities for those returning to academia.

**Career Independence**

Academic careers demand two types of independence:

**Research Independence** with creative and groundbreaking research plans, publication records and funding acquisition and **Personal Independence**, which requires taking personal responsibility for career planning and development with the aim of supporting appropriate decision making and progress.

**Research Independence**

To develop research independence:

- Reflect on the key career question of ‘how can I demonstrate research independence to funders or senior academics in my network?’. Research interests and publication strategies are something researchers should have inputs into – don't leave them 100% to others.
• Identify those opportunities which will offer further challenges and development – this could be in developing techniques or skills, research interests and research management experience.
• Explore the range of funding opportunities, including fellowships, which offer opportunities to develop your interests.
• Consider the pros and cons of moving to different institutions in order to develop experience.
• Reflect and take action on the above suggestions on a regular basis from the start of each new role or contract.

To develop personal independence, it is helpful to understand that not all HEIs have the same facilities and support mechanisms so a proactive and personally driven approach is helpful.

• Get to know the range of opportunities and pathways for academic jobs ahead of you and acquire a broad understanding of what those roles require in HE. Explore the potential differences in academic experiences in the range of universities in the UK and overseas – large, small, specialist, research intensive. This could be achieved by attending academic career planning courses and through observation of, and networking with, colleagues, locally and at conferences, using role profiles published by university HR departments and reviewing job descriptions.
• Make informed choices about your next role options, assessing jobs critically in terms of the requirements for academic career progression and the opportunity to build good career foundations, for example in developing research interests and plans.
• Use the nationally recognised RDF (Researcher Development Framework) on a regular basis review to identify your strengths and gaps.
• Take personal career progression advice from a range of sources:
  o Make supervisions and meetings with principal investigators (PIs) work for you. Plan to have a career discussion with senior colleagues which addresses wider career development issues as well as work in progress. These discussions can be challenging and you may hear some adverse comments on possible career success, but they can also act as a spur to take action.
  o Involvement in a mentoring scheme would also offer this type of career development discussion. Where there is no institutional scheme available, we would encourage you to set up your own mentoring relationship with a colleague in or outside of your current institution. This person should be someone who is in a position to offer impartial and critical advice and feedback on your career progress.
  o Where available, use your specialist career consultant for ongoing career review and advice on presenting yourself for job applications and interviews.

Academic Investment

Invest in your career with enthusiasm and focus on your research outputs, but also develop your experience in other areas of academic work. These activities can be viewed as investments in your skills and experience bank which you can draw on.
when needed, in an interview for example. As with any investments, some areas have higher potential rewards and also some risks.

Develop an ongoing and up-to-date knowledge and understanding of university, school or department research objectives and teaching plans when you apply for lectureships.

- Engage actively outside your immediate research group.
- Be aware of published research plans and priorities for your own institution.
- Be aware of published research plans and priorities for your target institutions (establish a list of your targets).

Acquire and take opportunities on offer to take up other academic-related experiences beyond your research and formal job description. These might include:

- Extending your teaching experience or commencing a teaching qualification.
- Gaining interdisciplinary, consultancy and commercialisation experience as part of your research profile development.
- Formally mentoring less experienced researchers.
- Volunteering for outreach activities.
- Membership of departmental or faculty committees in order to develop organisational knowledge and understanding.

And beyond...

For new lecturers, career development does not stop when you have achieved your initial goal. Continue to use a mentor, attend relevant professional development courses and continue to prepare for, and adapt to, change.

Figure 3: Researcher to lecturer model

This model aims to show the power of the three key elements that can really make a difference to developing an academic career: research independence; personal independence; and academic investment.
## Practical tools and resources to develop academic career development

<table>
<thead>
<tr>
<th>Resource</th>
<th>Use this to…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concordat to Support the Career Development of Researchers</td>
<td>Know your rights and responsibilities as a researcher.</td>
</tr>
<tr>
<td><a href="https://www.vitae.ac.uk/policy/concordat-to-support-the-career-development-of-researchers">https://www.vitae.ac.uk/policy/concordat-to-support-the-career-development-of-researchers</a></td>
<td></td>
</tr>
<tr>
<td>RDF - Vitae Researcher Development Framework and planner</td>
<td>Know the range and level of your research career experience and skills on a national scale.</td>
</tr>
<tr>
<td><a href="https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework">https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework</a></td>
<td></td>
</tr>
<tr>
<td>PDP (personal development plan) - at your own HEI</td>
<td>Know the range and level of your research career experience and skills on an HEI scale.</td>
</tr>
<tr>
<td>Supervision meetings with your supervisors</td>
<td>Know your progress and targets.</td>
</tr>
<tr>
<td>Appraisals with your PI</td>
<td>Know your progress and targets.</td>
</tr>
<tr>
<td>Mentor interaction (where available)</td>
<td>Obtain practical advice outside line management from an experienced academic.</td>
</tr>
<tr>
<td>Career consultations (where available)</td>
<td>Obtain informed and impartial advice and careers guidance.</td>
</tr>
<tr>
<td>Jobs.ac.uk</td>
<td>Know the current jobs market and occupational information on both jobs in your level and those in your 5/10 year target.</td>
</tr>
<tr>
<td><a href="http://www.jobs.ac.uk/">http://www.jobs.ac.uk/</a></td>
<td></td>
</tr>
<tr>
<td>Times Higher Education</td>
<td></td>
</tr>
<tr>
<td><a href="http://jobs.timeshighereducation.co.uk/jobs">http://jobs.timeshighereducation.co.uk/jobs</a></td>
<td></td>
</tr>
<tr>
<td>VITAE</td>
<td>Keep up to date on the latest issues, reports, policies and careers resources for researchers.</td>
</tr>
<tr>
<td><a href="https://www.vitae.ac.uk/">https://www.vitae.ac.uk/</a></td>
<td></td>
</tr>
<tr>
<td>UKRSA - UK Research Staff Association</td>
<td>Participate in the national research staff community in the UK, through building researcher communities and influencing policy. Also your local or regional community.</td>
</tr>
<tr>
<td><a href="https://www.vitae.ac.uk/communities/uk-research-staff-association">https://www.vitae.ac.uk/communities/uk-research-staff-association</a></td>
<td></td>
</tr>
<tr>
<td>Professional associations/societies</td>
<td>Keep up to date with your subject area and associated professional issues.</td>
</tr>
<tr>
<td>Learned bodies</td>
<td></td>
</tr>
</tbody>
</table>
2.3 Recommendations for other user groups supporting researchers' career development

The major remit for the conduct of the survey and preparation of the report was to provide information and insights to researchers; also included were other aims to offer assistance to PIs, research managers and supervisors involved in career development discussions and to contribute to the development of practice within staff development and careers services. The points below offer information on these aspects of the project.

In the introduction to the report points were made concerning the practice within careers services of collecting careers knowledge from members of a profession, and the report illustrates that those currently working in academic research and teaching roles are able to offer much that is useful to early career researchers. We would suggest, therefore, that this wider (but still small) overview from across the academic profession in the UK sits usefully alongside the advice and information offered by a colleague or manager.

We would also encourage institutions to continue to collect career insights and evidence from their academic staff not only to assist researchers, but also to provide a further resource for research managers and PIs involved in careers discussions or mentoring activities. We have, of course, learnt some valuable lessons on the design and delivery of this type of survey which we would be happy to share.

For staff developers and careers professionals, the qualitative comments, in particular, from the survey offer interesting insights into individual academics' views of candidates and we would suggest these could promote some interesting discussions within existing academic career planning, CV and interview training.

The AGCAS Research Staff Task Group is undertaking further work to develop training materials and other resources from the survey findings and these will be disseminated during winter 2014.
3. CAREER COMPONENTS – EXPERIENCE, KNOWLEDGE AND ATTRIBUTES

The career components of research, teaching and engagement, and management are closely examined in this section with discussion of findings concerning the expectation of experience, knowledge and attributes in these areas. These components form the heart of the requirements for a first lecturing job and the basis for a longer-term academic career. This section also incorporates analysis from the question (3.4) "What do you see as the top three key attributes of good lectureship candidates in your discipline?" asked towards the end of the survey, as this provides further career development insights and knowledge for researchers to consider. Taken together, the analysis of these questions appears to reinforce the emphasis on research development as the key to success; however, other aspects of academic experience are also considered here. It is important for early career researchers to appreciate the full extent of the role and the personal attributes required.

3.1 Research
A number of questions concentrated on gathering evidence on the requirements for lectureship candidates across the following areas:

- frequency, quality and type of publications record expected;
- levels of successful funding application;
- extent of conference presentation experience;
- frequency and nature of collaboration and external consultancy experience;
- expectations of having interdisciplinary research experience.

Overall, the responses to the questions on publications and levels of funding served to reinforce the perceived emphasis on these areas as being key requirements for lectureship candidates.

With regard to levels of successful funding applications, the responses offered the view that there are alternatives to being awarded a fellowship with evidence of collaborations with senior colleagues being seen also as a strong indicator for an academic career. However, there were mixed responses to the value of some smaller awards such as travel grants.

The responses on experience of collaboration, external consultancy and interdisciplinary research were more variable and generally did not offer the same level of comment as did the questions on publications and funding. Some questioned why these areas had been included in the survey and suggested that research staff would not be in a position to acquire such experience. These responses did highlight potential inconsistencies with other survey questions where respondents commented on the need for newly appointed lecturers to 'hit the ground running' and to be prepared for the increasing demands placed on them.

3.1.1 Describe the publications record that is expected including frequency, quality and type

*Overall career development themes - publications*

164 (95%) respondents described, or commented on, the publications record expected. Responses fell broadly into themes common to the four discipline
groupings. The comments also generally reflected characteristics of these groupings, and differences in PhD and postdoctoral experiences.

- **Article/journal publications** - this ranged from less than 5 per year to an overall postdoctoral/early career total of between 10 and 20. The highest number of responses across the disciplines, 78 (48%), specified a rate of less than 5 articles per year.

- **Evidence of increasing quality and impact** - although this was referred to most often by respondents from the biological and biomedical sciences - 18 (10%).

- **Importance of publications** - this was stated in comments but the type or number was not specified. Other respondents commented on the need to recognise other types of research outputs that may be used in their discipline, for example architectural or design portfolios.

Other career development considerations were highlighted, for example, in developing a publication record early career researchers may need to recognise the point at which they should consider the quality as well as the consistency of their publication output:

"It varies a lot; it's crucial to have some publications in top quality journals. This counts more than more papers in not so good journals." (Physical Sciences and Engineering)

Respondents also made specific reference to the influence of the Research Excellence Framework (REF) cycle - 22 (13%) - and this serves to illustrate the need for researchers to appreciate other factors that may influence their career progress and affect the academic job market:

"At present, just before a REF, we would look to them having something that has a chance of being rated 4* (World Leading) which might take the form of a substantial original monograph published with a high profile publisher (perhaps the result of an extension of their PhD or maybe postdoc work) or a major block-buster paper in a top journal." (Arts and Humanities)

They may also need to recognise other factors that may influence those recruiting as respondents also highlighted that their expectations might vary dependent on the career stage of the applicant or the requirements of the post advertised. These responses also highlight the need for researchers to develop and use a broader range of career management attributes, such as networking and labour market information gathering, so that they can make informed judgements about opportunities.

**Discipline specific themes**

**Arts and humanities** responses ranged from no expectation that a new lecturer would have published, through contributions to work or plans to publish from the PhD, to a specified number of research pieces. A number of respondents highlighted having a book contract, whilst others noted the need to move from quantity to quality.
Biological and biomedical sciences tended to specify a number of publications expected and the need for researchers to begin to balance the quantity of output with increasing quality and impact.

Physical sciences and engineering referred to a specific number of papers and output per year alongside increasing impact and quality factors as important. Reference was also made to the evidence of increasing independence from supervisors.

Social sciences responses ranged from having plans to publish or publications submitted for review, through to specific numbers of papers in high ranking journals. Several respondents also commented on the influence of the REF cycle and others also reflected specific discipline differences in the social sciences where evidence from professional portfolios would be included.

There were some interesting comments on the differences in ‘subfields’ of some academic disciplines where it was felt that using metrics and impact factors could disadvantage some. In career development terms, this highlights the need for researchers to be knowledgeable about such differences and to account for them at various stages of a job application process. The quote below summarises the responses received overall and also highlights some of the career development and management considerations referred to earlier in this section:

"I would estimate 1-2 papers a year for new lecturers. I would probably expect them to have 5-10 papers published if they have done several years’ postdoc. The important aspect would be to show a continued and, ideally, an increasing output. I would expect to see first authorship on at least a proportion of papers, including papers from the PhD, and then from postdoctoral research. If there are no first author papers I might be concerned. However, co-authorship may indicate collaborations with others, which would be good. I would hope to see at least some of the papers in top journals in the topic area, ideally those where the potential candidate is first author." (Physical Sciences and Engineering)
3.1.2 What level of successful funding applications is expected?

Figure 4: Funding applications

Overall career development themes – funding

The design of this question allowed respondents to identify a number of types of successful funding expectations. As can be seen from Figure 4, all categories offered were used by the respondents, with the largest - 54 (31%) - ticking "none" and the smallest - 10 (6%) - using the "depends on funding source" option. A high number of respondents - 53 (30%) - chose to select "other" and were offered the opportunity to identify these other funding expectations. However, many respondents chose to make comments either on the question itself or to qualify the choices they had made in the tick box selection and did not identify other funding.

When analysed by discipline groups, there are variations in the funding types and expectations. These responses appear to reflect the types of funding opportunities available within different disciplines as well as potentially longer periods of postdoctoral employment in the STEM disciplines:

- Biological/biomedical sciences and physical sciences and engineering respondents highlighted academic fellowships, joint grant applications with senior colleagues and independent grants - 38 (22%).
- Within the arts/humanities and social sciences disciplines respondents did not expect to see evidence of successful funding applications - 34 (20%) - whereas for biological/biomedical science this figure was 4 (3%).
- Small project grant evidence offered a more varied pattern of responses, with the highest percentage - 17 (10%) - coming from the social sciences. Travel grant evidence attracted responses from all four discipline areas but, taken together, the arts/humanities and social sciences at 34 (20%) noted this evidence more often than biological/biomedical and physical sciences and engineering - 17 (10%).
Individual comments from respondents revealed some key areas for researchers to consider in appreciating the type of evidence they can use, how it may be viewed and the fact that they may not be able to rely on one area of outstanding practice to achieve a lectureship:

"...the whole CV has to add up not any one bit over another, so if they have great publications then less funding is ok, but they need to have some evidence of an ability to secure funds." (Biological and Biomedical Sciences)

Another comment dismissed travel grants as evidence of successful funding as the respondent considered that they were "routinely awarded"; this may be true of some, but where small grant/project funding has been competitively won, researchers should consider clearly identifying this in a job application.

"Many travel grants are almost entirely irrelevant as they are often routinely awarded to early career researchers." (Biological and Biomedical Sciences)

**Discipline specific themes - funding**

For researchers, the responses, especially the qualitative comments set out in the "other funding" comment box, offer insights into strategies with regard to their plans for making funding applications and other related career development activities. The main themes for each of the discipline groupings were:

**Arts and humanities** – respondents were more likely to consider successful funding applications as a "bonus" or the "icing on the cake". They did, however, expect to see evidence of plans or knowledge of funding sources. For researchers in these disciplines, making bids for travel grants and small project grants could be beneficial as it may help them to provide evidence to back up plans and ideas.

"Difficult to be simplistic because many postdocs will not have been eligible for RC [Research Council] grants, etc. We would like to see some evidence of successful grant gaining, however, and certainly would want candidates to be clued up about funding sources. They need to have some ideas and plans."

**Biological and biomedical sciences** – respondents were more likely to seek specific evidence of successful funding outcomes such as academic fellowships and independent grants. Some respondents were more definite in their approach to this than others and the quotes below highlight to researchers the different approaches that individual recruiters can take:

"None is 'expected', but successful applications for independent project grants (however small) are a good sign. Fellowships and large independent grants are a very good sign."

"This is key; unless there is evidence of successful grant applications, there is little chance of being appointed as a lecturer."

**Physical sciences and engineering** – responses were very similar to those from the biological and biomedical sciences with collaborations with senior colleagues, independent grants and academic fellowships having the highest response rates. Respondents also highlighted the need for researchers to present evidence appropriate for the stage of their career and also the importance of funding gained or sought in competition with others.
I would hope for more than just small travel grants and small project grants. An academic fellowship is ideal because it implies funding won in competition with other high quality candidates but it would not be an expectation. I would argue it puts you in a very strong position but I wouldn't expect it. I definitely think evidence of ability to gain funding in competition and a reasonable level of funding. Also, evidence that this can be gained independent of more senior colleagues is ideal.

Social sciences – respondents reflected a different range of expectations with travel grants - 13 (8%), small project grants and joint grant applications - 12 (7%) - as their top categories. The qualitative comments offered interesting insights and raised similar issues to those of other disciplines, for example that successful funding applications can be a bonus but may not be a necessity; however, having plans and ideas in place is. One respondent suggested involvement in the bidding process was valuable, whilst another reflected the dominance of publication records and the way in which funding success supported this. Again, the comments illustrated the different approaches individuals may adopt when they are involved in recruitment and selection.

"I think having successful funding applications helps, but is not a necessity for getting a lectureship. However, realistic ideas for projects and collaborations are very important."

"I'd be more concerned to see they had some experience in being involved in bidding, whether or not successful."

"Publications are the big thing. Having funding will help to get the publications, but funding is not an end in itself."

3.1.3 What extent of conference experience is expected?

Overall career development themes

88 (51%) respondents expected researchers to have had regular experience of conference presentation and 54 (31%) expected occasional experience.

When broken down by discipline, as shown in Figure 5, physical sciences and engineering - 31 (18%) - and the biological/biomedical disciplines - 21 (12%) - were more likely to select the "regular" experience option. Within the arts and humanities there were similar response rates to the "regular" and "occasional" categories.

24 (14%) respondents selected "other" and included comments in the text box. A range of comments were made, with some respondents not considering this type of experience as important at all and stressing the focus on publications and funding or completion of the PhD. Others related this experience to other attributes and skills required in academia, such as communication generally or being able to give a good job talk at interview. Some respondents did identify being invited to present or having organised a seminar as being of more value, and this again highlights the need for researchers to be specific and include additional details in an application or at interview. One respondent did point out that too much conference attendance may be counterproductive as the researcher would be "away from the university too much".
"As long as the ability to communicate work in person has been demonstrated, the extent of conference presentation experience is largely irrelevant (though it is a good way to get noticed)."

"Only helps IF you are invited for a plenary or if you organised the meeting or the session." (Biological and Biomedical Sciences)
3.1.4 Would you expect interdisciplinary research experience in the profile of lectureship candidates?

Figure 6: Interdisciplinary research

**Overall career development themes – interdisciplinary experience**

The majority of respondents - 124 (72%) - across all disciplines did not expect to see evidence of interdisciplinary research experience.

There were a number of comments which may point to the "career development value" to applicants for lecturing posts of an interdisciplinary approach. Others mentioned the value of acquiring new knowledge through involvement in interdisciplinary work. Some also saw a similar benefit in terms of teaching. Other respondents highlighted that their areas of research and academic disciplines were, by definition, interdisciplinary.

"This is not a requirement, but I would personally value the ability of a candidate to learn a new subject and manage to contribute in that area." (Physical Sciences and Engineering)

"My subject group and academic field is itself interdisciplinary, so anyone seeking a post in this area would be expected to have interdisciplinary research experience." (Social Sciences)

3.1.5 What frequency and nature of collaboration experience is expected? What frequency and nature of external consultancy experience is expected?

This section of the report considers two survey questions as both offered interesting comments on the frequency and nature of this type of activity, as well as some
surprise that external consultancy was included as experience required for a first lecturing post.

**Overall career development themes – collaboration**

Most expectations focus on academic collaboration experience (see Figure 7), although variations occur between the disciplines even in this type of collaboration. All four discipline areas (see Appendix 3, Figure 28: Collaboration experience) expected to see occasional activity but regular evidence was looked for more by physical sciences and engineering - 30 (17%) - and social sciences - 22 (13%). This expectation in social sciences may reflect the type of research activity being undertaken.

**Figure 7: Collaboration experience – overall**

![Collaboration Experience -overall](image)

For the other areas identified in the survey, only industrial/commercial collaborations were seen as having some significance, and even then the majority of responses were in the category of "occasional" activity and came mainly from biological/biomedical sciences respondents - 50 (29%). Across all disciplines, no experience of collaboration with the public - 126 (73%) - or not-for-profit - 129 (75%) - sectors was expected.

In examining collaborative activity, perhaps it could be argued that, apart from academic collaboration and some discipline specific activity with industrial/commercial partners, this type of experience is part of the development expected once early career researchers have secured a lectureship.

"It's the papers and grant income which counts. If the collaborations are helping in this then it is a good thing but it is not indispensable to have them."

(Biological and Biomedical Sciences)

"I think it's good to see evidence of collaboration as it indicates a willingness and ability to work with others. However, it depends on the research area and how easy it is to collaborate with others. This collaboration could be with any of the potential collaborators listed. So, if someone had a good record of
collaborating with, eg, the public sector but not with academics, industry or not-for-profit, that would be OK." (Physical Sciences and Engineering)

**Overall career development themes – external consultancy**

Out of the 172 responses for consultancy experience, 148 (86%) stated "none is expected" (see Figure 8 and Appendix 3, Figure 29: Consultancy experience). Some limited expectations were seen with the industrial/commercial sector – 20 (12%) - from biomedical and biological sciences, physical sciences and engineering and social sciences and there was a slight increase in expectations of occasional activity in the public - 12 (7%) - and not-for-profit - 11 (6%) - sectors by social sciences respondents. Both of these could perhaps be attributed to the nature of research activity being undertaken.

**Figure 8: Consultancy experience – overall**

![Consultancy Experience - Overall](image)

3.2 Teaching

The survey gathered evidence on two main aspects of teaching in HE for lectureship candidates:

- type and extent of experience;
- formal training teaching.

3.2.1 What level and extent of teaching experience is expected?

The survey asked respondents to consider seven areas of teaching experience, comprising the main types currently in use from the more personal one-to-one methods to formal teaching situations. Specific response (as shown in Figure 9) was requested on:

- PhD supervision;
- field or lab demonstration;
- undergraduate or master's supervision;
- seminar or small group work;
• lecturing;
• course design;
• assessment and feedback.

Figure 9: Teaching experience overall

Overall career development themes

• Seminar or small group work was the most regular expected teaching experience with 75 (43.6%) respondents expecting evidence that candidates had experience of this on a regular basis and 74 (42%) on an occasional basis across the disciplines.
• PhD supervision and course design were two areas of teaching with the least expectation. Both had only 18 (10.5%) respondents for regular experience and 102 (59.3%) and 99 (57.6%) respondents respectively for no experience requirement.
• Lecturing and undergraduate or master's project supervision were areas where expectation was for occasional experience, with 103 (59.9%) and 91 (52.9%) respondents respectively.
• The majority of comments gave the view that a minimum understanding of and enthusiasm for teaching evidenced by some mix of experience was important. The detail of exactly what was required was flexible.

Discipline specific themes – teaching experience

There were differences between disciplines on type and extent of experience, as might be expected due to the nature of the subject matter and common teaching methods in use, which can be seen in Figures 10 to 13.

The following highlights and comments on each area clarify these points.
PhD supervision
As noted above, this was fairly low on the list of required experience but with most importance for biological and biomedical sciences and the physical sciences and engineering, with comments clarifying the answers:

"For a first time lecturing post there would be no requirement for PhD supervision, although PhD supervision would be desirable and would make the application competitive." (Biological and Biomedical Sciences)

"New lecturers would not usually have had the chance to supervise PhDs before, though it would be a bonus if they had." (Physical Sciences and Engineering)

Field or lab demonstration,
This area, with "regular" and "occasional" expectation of 55 (32%) and 35 (20.3%) experience respectively, does vary in a similar pattern to the PhD supervision but with regular answers drawn from all disciplines except arts and humanities.

Undergraduate or master's supervision
The higher levels of occasional experience for this area touch all the disciplines with comments showing preference for some:

"Not a deal-breaker, but we'd be surprised to see it was not there." (Physical Sciences and Engineering)

and explanation for the level of requirement from arts and humanities - 4 (11.8%) "regular" - but 22 (64.7%) "occasional", illustrating the view that it may not always be available to researchers prior to appointment:

"This would be something that would be asked about, but if there had been no opportunity for it in the applicant's career to date, that would not disadvantage her." (Arts and Humanities)

Seminar or small group work
Seminar or small group work is the most common experience expected, as noted above, but is most important for arts and humanities and social sciences with "regular" experience chosen by 23 (67.7%) and 30 (60%) respondents respectively.

It is less important for biological and biomedical sciences and physical sciences and engineering with larger numbers going for "occasional" experience - 24 (66.8%) and 24 (46.2%) respondents respectively. This may be due to the nature of discipline specific work reflecting an opposite pattern to field and lab work. Positive comments were made by all disciplines.

"Would be positive, but not always possible. But must show interest in this area." (Physical Sciences and Engineering)

Lecturing
The expectation that experience of lecturing is required is shown as being most important for arts and humanities, with the pattern of 13 (38.2%) "regular" and 21 (61.8%) "occasional" with no respondent stating "none". This is followed next by social sciences.

"Some knowledge and experience is VERY useful." (Social Sciences)
Very similar views were expressed for both biological and biomedical sciences and physical sciences and engineering, with both hovering around 78% when combining "regular" and "occasional" scores. This comment on the balance of importance has been echoed by several respondents

"Some formal teaching of undergraduates is a prerequisite for appointment (the type is not particularly important). But beyond this minimum requirement the amount of teaching experience is not particularly important (although perhaps it should be)." (Biological and Life Sciences)

"This will help if an equally good candidate is on the shortlist, but it won't tip the balance in your favour if the other candidate has better publications or more grant money." (Biological and Biomedical Sciences)

**Course design**

Course design expectation is at a comparatively low level as noted above but varies by discipline, with most enthusiasm from arts and humanities followed by social sciences with totals of 25 (73.5%) and 25 (50%) when combining regular and occasional scores.

"This would be a bonus. Some institutions facilitate this in junior staff, others don't. We would take that into consideration." (Arts and Humanities)

The timing of experience at early career is also relevant.

"If possible but often not possible before someone is in their first permanent job." (Social Sciences)

For the biological and biomedical sciences that figure is 11 (30.6%) and the least required is in physical sciences and engineering with a score of 12 (23.1%), thus none required of 40 (76.9%). Comments show that matters may differ specifically by subject discipline.

"This is very rare in theoretical physics." (Physical Sciences and Engineering)

**Assessment and feedback**

In reviewing this section the research group were uncertain if the respondents had interpreted the question as the survey design had intended. The comments below illustrate what we had intended to ask about.

"Through the lab supervision and tutoring they would generally have had some experience of marking, although not perhaps experience of designing assessments and marking schemes." (Physical Sciences and Engineering)

"Depends on the applicant's background: new lecturers often have a professional background rather than an academic background." (Social Sciences)

From the other comments it seems that respondents may have interpreted the question as general feedback on group or individual work as it is not always consistent with the answers to the other elements of teaching. For example, social sciences assessment and feedback experience is seen as more regular than course design and lecturing. We therefore feel that we cannot draw any specific consistent conclusions from this part.
Figure 10: Teaching experience: arts and humanities

Figure 11: Teaching experience: biological and biomedical sciences
Figure 12: Teaching experience: physical sciences and engineering

Figure 13: Teaching experience: social sciences
3.2.2 Is formal training in higher education teaching expected prior to appointment?

**Overall career development themes**

- Formal training in teaching was not expected with a "no" from the vast majority, 154 (89.5%), of respondents, with only 18 (10.5%) respondents saying "yes" as shown in Figure 14.
- 17 of those answering yes also indicated a requirement for formal training, with 13 selecting substantial qualifications, HEA or institution-based courses (see Figure 15).

**Figure 14: Teaching – training**

![Teaching - Training](image)

**Figure 15: Teaching – training type**

![Teaching - Training Type](image)
**Discipline specific themes**

The most notable differences between disciplines were:

- Arts and humanities respondents had a higher level of expectation, which was split with 27 (79.4%) respondents saying "no" and 7 (20.6%) saying "yes". This is consistent with the detailed views on the type of experience of teaching expected by arts and humanities respondents noted above but is still clearly a minority in favour of the qualification as an expectation.
- Social sciences respondents had the lowest level of expectation with 48 (96%) saying no and just 2 (4%) saying "yes".
- There were some impassioned comments on the value of quality teaching.

In response to the question on formal training, comments had a strong theme of the dual issues of "desirable" but not currently "essential" and the expectation that formal training would and should be provided to new lecturers on appointment:

"*Not essential but now highly valued if you have it prior to commencing a lectureship.*" (Arts and Humanities)

Others took the opportunity to give views on the importance of teaching qualifications and their positive effect on learning and teaching:

"*The answer for our institution is NO… I believe it should be mandatory for ALL staff to have at least some formal training in teaching. Teaching is an incredibly responsible job and far too many people are ill informed with no qualifications or real understanding of good and effective learning and teaching.*" (Social Sciences)

It is, therefore, important that those aspiring to lectureships should consider how they can gain experience and training in higher education teaching even though their principal work activity is research.

### 3.3 Engagement and management

The survey gathered evidence on the requirements for lectureship candidates in the following two areas:

- Frequency and nature of public engagement experience.
- Evidence of management and administration experience.

The survey showed that for engagement experience:

- activities were seen as desirable but not essential;
- some differences occur between disciplines.

For management and administration experience:

- evidence was seen as a bonus, desirable but not essential;
- management experience was noted as possibly not being available to most researchers, hence it is not expected.

The comments were more detailed for management.
3.3.1 Engagement experience

The survey questions dealt with gathering evidence on the experience for lectureship candidates across the following areas:

- presentations/interactions with school groups;
- presentations/interactions with community groups;
- university open days;
- widening participation activities;
- media contact.

Overall career development themes

The overall message coming from these comments and findings as shown in Figure 16 (and Figure 30 in Appendix 3: Engagement by discipline group) is that public engagement experience is an optional part of the skills and experience set, desirable not essential, when compared to the key elements of research and teaching at the early stages of the career in the selection of new lecturers.

Figure 16: Engagement - overall

As shown in Figure 16 (and Figure 30 in Appendix 3: Engagement by discipline group), "none" is by far the most frequent option expected across the public engagement experience areas, with variations between 134 (70.3%) for media contact as least expected, down to 114 (66.3%) for presentation and interaction with school groups. "Occasional" experience is also appreciated across the options with the highest figure at 53 (30.8 %) for presentations/interactions with school groups and the lowest at figure at 36 (20.9%) for university open days. "Regular" is chosen by very few.

The following comments are typical of the views stated:
"All these things are welcome if there is experience but would not be expected. They are things we might ask questions on in interview, mostly to assess attitude and to make the candidate aware that they are part of what is expected of someone doing the job." (Physical Sciences and Engineering)

"Would be a bonus in some posts." (Social Sciences)

**Discipline specific themes**

The only marked difference between disciplines is the more positive views of social sciences respondents on presentations/interactions with community groups, with 21 (42%) for "occasional", 27 (52%) for "none" and 2 (4%) for "regular", comparing to the other disciplines with lower occasional experience. This may possibly be due to the larger amount of contact with community groups amongst social sciences research projects.

**3.3.2 Management and administration experience**

The survey questions dealt with gathering information on the experience for lectureship candidates across the following areas:

- project leadership;
- school or departmental committee membership;
- national learned body or (voluntary) professional body posts;
- other management.

**Overall career development themes**

The overall message coming from these comments and findings is that these management and administrative skills are a necessary part of a lecturer's skills and experience set when in the job, but more desirable and a bonus, rather than essential, when compared to the key elements of research and teaching at the early stages of the career.
Project leadership as shown in Figures 17 and 18 was the most sought after experience with 32 (18.6%) “regular” and 67 (39%) “occasional”. There were differences between disciplines and several comments indicated that this experience would be expected from activities during PhD studies.

“A good doctorate involves project management.” (Physical Sciences and Engineering)

Other management - specifics

There were some interesting and clear comments suggesting areas the survey questions had not identified. There was no pattern from within the disciplines on these. The administration of teaching was the most frequent topic:

"Experience in basic course administration is essential: coordinating groups of students, managing assessment, submission of marks, producing course materials, maintaining VLEs, etc.” (Physical Sciences and Engineering)

Where new lecturers were likely to come from the professions, school teaching profession (social sciences) and architecture (physical sciences), experience outside academia is noted:

“A school senior management position, eg, senior teacher, assistant head, deputy head, head teacher.” (Social Sciences)

“Some experience in architectural practice.” (Physical Sciences)
Discipline specific themes

Project leadership
- Biological and biomedical sciences has the most positive view showing 14 (38.9%) at "regular" and 14 (38.9%) "occasional", whilst physical sciences and engineering show a more even balance with 14 (26.9%) "regular" and 18 (34.6%) for "occasional".
- Arts and humanities has a nil response for "regular" and 23 (67.7%) for "none", whilst social sciences has a more even spread between "none" at 22 (44%) and "occasional" at 24 (48%).
- Comments indicate the view that not all postdoctoral researchers would have had the opportunity to gain this experience.

"Very positive if there has been the opportunity, but would not exclude candidate if missing." (Social Sciences)

School or departmental committee membership
- This was generally an area where evidence was not given priority as shown in Figure 31 in Appendix 3: Management by discipline group. Overall results of "occasional experience" at 55 (32%) are overshadowed by 108 (62.5%) for "none", with only 9 (5.2%) for "regular".
- Results vary between disciplines with social sciences the highest at 21 (42%) for occasional experience, the comment below was the most common message.

"None expected but any activity might be useful." (Physical sciences and engineering)

Balancing this, there were several comments supporting the idea of a track record of active "good citizenship".

"We would certainly look for evidence of some kind of institutional service or organisational ability at some level and at some stage - postgraduate student
committee work, post-holding in a student society, voluntary work, other sorts of non-academic work. (Arts and Humanities)

**National learned body or (voluntary) professional body posts**

- National learned body or (voluntary) professional body posts as shown in Figure 31 in Appendix 3 is also an area of low evidence expectation. Overall results as in Figure 17 for "occasional" at 68 (39.5%) are again topped by 95 (55.2%) for "none", with only 9 (5.2%) for "regular".

One comment explains the view that this experience is not expected from candidates:

"Not expected as often too junior to take on such roles." (Biological and Biomedical Sciences)

### 3.4 Attributes of lectureship candidates

**What do you see as the top three key attributes of good lectureship candidates in your discipline?**

By addressing this question, which appeared later in the questionnaire after those on specific aspects of research, teaching, engagement and management experience, respondents have provided researchers with further insights into the ways in which they may need to develop in these areas. The responses also brought to researchers' attention a different set of attributes as the analysis of comments showed that the top three were:

- research;
- teaching;
- personal skills and qualities.

The analysis below offers a reinforcement of, as well as some additional insights into, aspects of research and teaching shown in sections 3.1 to 3.3. It also clearly introduces the importance of a range of personal skills and qualities which is treated first in this section of the report.
3.4.1 Key attributes – skills and qualities

Figure 19: Key attributes – skills and qualities

Team or collaborative working was the skill mentioned most frequently by respondents with 31% (53) stating this as one of their top three attributes. This was most important in physical sciences and engineering with 44% (23) of respondents choosing team working or collaboration.

"Willingness to initiate and respond to collaboration with colleagues." (Biological and Biomedical Sciences)

"Independence, collegiality, and drive. Collegiality is the most important, but lack of any and I am not interested." (Physical Sciences and Engineering)

Communication skills were also seen as important, with 26% (45) of respondents stating some aspect of communication among their top three attributes.

"Ability to communicate effectively with people from diverse backgrounds." (Social Sciences)

Enthusiasm or passion for the job was cited by 13% (23) of respondents, but was most frequently mentioned by academics in arts and humanities - 18% (6) - and biological and biomedical sciences - 17% (6).

"Informed enthusiasm about the subject." (Arts and Humanities)

"Tenacity and enthusiasm to succeed in a rewarding but extremely demanding and pressured job." (Physical Sciences and Engineering)

Drive and commitment was cited most frequently by respondents from physical sciences and engineering - 17% (9).

"Drive and enthusiasm for research - when you first start teaching it can be a little overwhelming so it is important that candidates are tenacious with respect to their research." (Physical Sciences and Engineering)
The ability to think creatively or generate ideas was mentioned by 9% (16) of respondents, most frequently by those in physical sciences and engineering - 13% (7).

"Creativity to generate good ideas for research and teaching." (Social Sciences)

Many other factors were noted which advise on the necessity for candidates to be prepared and knowledgeable about the breadth and nature of the career. This also reinforces comments made in Section 5: Communicating at interview:

"Clear understanding of what the role entails through credible answers to questions relating to teaching, administration, and research." (Physical Sciences and Engineering)

"Intellectual ability and competence, perseverance, resilience." (Biological and Biomedical Sciences)

3.4.2 Key attributes - research

Figure 20: Key attributes – research

Figure 20 reveals that 77% (133) of respondents stated that some aspect of research experience would be in the top three things they would expect of good lectureship candidates, corresponding closely to responses recorded in section 3.1. Several respondents felt very strongly about the importance of having a research profile, stating that it outweighed any other experience or attributes a lectureship candidate had to offer.

"An excellent research record, an excellent research record and an excellent research record." (Physical Sciences and Engineering)

These responses also give clearer indications on specific aspects of developing as an academic researcher, with those mentioned most frequently being:

- excellent research profile or record;
- good clear research plans for the future;
• strong publication record or evidence of potential to publish;
• evidence of success in attracting funding or potential to win funding;
• evidence of ability to conduct independent research.

"A high quality research record expressed in publication terms commensurate with the career stage." (Arts and Humanities)

"Solid academic record with ongoing interests developed by yourself, not on your previous supervisor." (Biological and Biomedical Sciences)

3.4.3 Key attributes - teaching

Figure 21: Key attributes – teaching

Figure 21 shows that 53% (91) of respondents stated that some aspect of teaching experience would be in the top three things they would expect of good lectureship candidates.

The most commonly cited references were:

• evidence of teaching ability;
• experience of teaching;
• good subject knowledge;
• enthusiasm for teaching.

These give a different and more general perspective on teaching than the more specific categories of teaching experience and training requirements analysed in section 3.2. Teaching ability, experience of teaching and enthusiasm for it were, however, identified within the advice given on communicating at interview (see Section 5).

Good subject knowledge, which was most commonly cited by respondents in biological and biomedical sciences - 14% (5), was not mentioned in other sections.

Enthusiasm for teaching was also mentioned by 10% (17) of respondents almost equally across the different disciplines.
"Flexibility and breadth of knowledge and skills in teaching (ie, beyond the very narrow focus of the candidate’s PhD), with genuine willingness to learn a new area if the job required it." (Arts and Humanities)

"Enthusiasm about teaching - teaching a key part of the job, and should not be regarded as a necessary evil or distraction from research." (Physical Sciences and Engineering)
4. CAREER JOURNEY - PLANNED AND UNPLANNED STEPS

This set of questions reflects the potential diversity of researchers' career journeys and gathered evidence on the requirements and advice for lectureship candidates across the following areas:

- length of time spent in academic research;
- academic research experience of over ten years;
- academic work experience gained at more than one HE institution;
- planned or unplanned career breaks;
- impact of a period of work outside academia.

The key findings were:

- Time spent in academic research was recognised as a matter of importance, with mainstream expectation of between five and ten years, with over ten years as a serious challenge.
- The quality of academic experience and identity of the specific HEIs worked at was seen as of more importance than mobility.
- Career breaks, of any type, were seen as a challenge due to the potential negative effects on record of academic achievement.
- The impact of a period of work outside academia on applicants depends greatly on the type of work and the proximity of its relationship to the academic discipline.

Stated in this way, this set of findings sound clear but inflexible. The detailed comments do, however, show very helpful ways to view and deal with the challenges that individuals may face when navigating their career.

4.1 Length of time spent in research

What advice would you give to lectureship candidates with over ten years' academic research experience?

Overall career development themes

The overall view from respondents on the length of time in academic research was:

- 86 (50.0%) respondents advised up to five years, with half that number - 44 (25.6%) - opting for five to ten years as shown in Figure 22.
- The main alternative and explanatory comments offered by those opting for "other" - 35 (20.3%) - were that it will vary dependent upon specific job requirements and the more challenging view that academic achievements and experience outweigh time served.
- "No more than 10 years" was a category added to the survey due to concerns voiced by the research community. Only seven respondents chose this option and commented on it. The main points made were on academic trajectory and concerns that candidates may be seen as having been 'postdocs' too long. This view is illustrated by the following comment:
“Someone who has been a postdoc for too long, particularly if he/she has worked in the same lab all that time, is seen as not good enough to make an independent research career. More importantly, there are very few fellowships for which you can apply once you have more than 10 years of postdoctoral experience. However, I have seen more and more people getting their first academic job after 10 years, there is hope.” (Biological and Biomedical Sciences)

Figure 22: Time in academic research

Discipline specific themes

Views vary on length of experience by discipline as shown in Figure 22:

- Up to five years of experience were most important for arts and humanities - 23 (67.6%) - and social sciences - 35 (70%) - respondents, but more evenly split for physical sciences and engineering, with 23 (44.2%) respondents.
- Five to ten years of experience was most important to biological and biomedical sciences with 20 (55.6%) respondents.

“Depends. Seven years would be the absolute minimum (including PhD studies), normally we would expect an additional 3-6 years postdoctoral plus a fellowship. We look at quality of research.” (Biological and Biomedical Sciences)

4.2 Over ten years’ research experience

What advice would you give to lectureship candidates with over ten years’ academic research experience?

Overall career development themes

Three themes emerged from an analysis of the 185 comments on advice to lectureship candidates with over ten years’ research experience:

- academic achievements and independence;
- presenting yourself;
- career change.
The overall message is clearly that candidates with over ten years of academic experience will find challenges in obtaining their first lectureship. There were no particular discipline differences.

**Academic achievements and independence**

The key advice was in line with other parts of this survey (see sections 3.1 and 3.5), concentrating on academic achievements as shown in Figure 23, with 67 comments on the importance of the components of academic achievements of research, publications, funding, teaching, administration and networking.

**Figure 23: Academic achievements**

![Academic Achievements](Image)

This quote is typical in that it advises about the separate achievements that were seen as important in constructing an individual's academic profile in this competitive career:

"You need to be showing more than just academic performance, how diverse is your CV, how much teaching experience have you gained? All of this makes you competitive." (Biological and Biomedical Sciences)

Alongside this, the advice to develop independence was stated by ten respondents from three of the discipline groups, and within this context several mentioned fellowships as one of the methods of achieving and demonstrating this.

**Presenting yourself**

Advice was given to address two complementary approaches to present the postdoctoral researcher on the way to a first lectureship.

- Present the longer career journey as a positive journey rather than something to apologise for. This was recommended by 30 respondents. Summed up by this comment:

  "In the application, tell a story about what you have achieved in those ten years, and your future potential. If appropriate, anticipate the question, 'why has this person not been promoted yet?'" (Social Sciences)
As part of this advice, focusing on, and clearly illustrating, skills that can develop well over time and when working on a variety of research projects was recommended so that the candidate’s ‘added value’ was obvious.

- Engage in a full self-appraisal and reflection.

Personal reflection and planning ran through much of the advice, often with the idea of underpinning the presentation of the career journey and looking to the future.

“To honestly reflect on their strengths and weaknesses; then make a decision and develop an action plan for their further career development.” (Biological and Biomedical Sciences)

Career change

The advice to leave academia was given in a stark way by 23 respondents who took the view that over ten years as a postdoc was an indication that a lectureship was unattainable. Comments included “Give up” and “Find a different career before it’s too late.”

4.3 Experience at more than one HE institution

How important is it for lectureship candidates to have gained experience of academic work at more than one HE institution?

Overall career development themes

Opinions are very much divided on the issue of the importance of experience at more than one HEI as shown in Figure 24:

- Combined “important” and “very important” were selected by 46 (27%) respondents, whilst "neutral" and "not important" were chosen by 40 (23%) and 38 (22%) respondents respectively.
- The key factor is that it “depends on the HEI”. This option is selected by 55 (32%) respondents and had many comments made supporting it.

Figure 24: Work at more than one HEI
Discipline specific themes

The factors in favour of a range of HEIs are the demonstration of independence, flexibility and a broadening of skills, which is seen by the physical sciences and engineering and the biological and biomedical sciences respondents but less so by arts and humanities and social sciences.

“This is a personal view that I know is not universally shared by my colleagues. I feel that working at multiple institutes broadens research skills and networks, and generally makes for a more well-rounded and independent researcher.” (Physical Sciences and Engineering)

Where mobility was recommended there was much support for a pattern or plan rather than a random collection of jobs. Ideally, a series of roles which were connected by a research topic or related topics and carried out at quality HEIs. Positives mentioned for aiming to build a career at a “home” HEI were establishing a detailed knowledge of that organisation and being on the spot for opportunities arising.

“This balances out - a candidate who has (like me) studied undergrad/postgrad at the same institution may be better placed to progress to lectureship (as I did ...) because they are already very familiar with the problems/needs of that institution. On the other hand, flexibility may be desirable for some.” (Social Sciences)

4.4 Planned or unplanned career breaks

What advice would you give to lectureship candidates who are facing the possibility of a planned or unplanned career break?

Overall career development themes

Advice for lectureship candidates who are facing the possibility of a career break had a mixture of practical advice and general reaction to the whole concept. The comments were analysed into 206 responses. Overall, the career break is perceived as something that is a real challenge for academic staff aiming to sustain a career due to the expectation of continuous achievement. They know about mechanisms and schemes and policies but most do not really believe that this will truly help them. There were no discipline specific patterns.

Comments varied from very negative "don't do it" through to the simple comment of "enjoy". Constructive advice and comment was offered on the following four areas.

- pre-break;
- during break;
- post-break;
- formal policies and procedures.

Pre-break
There were 33 respondents across all disciplines offering a range of specific advice. The main recommendations were: prepare by having a pipeline of publications; make yourself "invaluable" pre-break; and have an overall self-review and planning for the lectureship soon after return.
“Try to publish plenty before you go off, so there’s a stream of publications while on leave.” (Social Sciences)

During break
This area attracted the most comprehensive comment, which focused on the key elements of academic careers noted above. There were 27 comments made on maintaining subject knowledge and another 27 on continuing with and developing existing networks, even if at a very low level, for example book reviews, teaching. Specific reference was made to retaining contact with existing senior staff.

“Secure a non-stipendiary association with a department and try to continue publishing even if at a much reduced rate. Try to maintain informal connections, eg, attend some research seminars. Keep up with the literature as much as possible.” (Arts and Humanities)

There was also some support for more generic skills development and volunteering.

Post-break
Advice post-break had fewer comments but of the 17 made, 13 advised full disclosure and explanation as part of the career journey, whilst 4 warned against. Advice included showing how “you got back up to speed” on return.

"They should highlight this clearly on their CV so they can be judged for the period in work. So declare it, don't hide it.” (Biological and Biomedical Science)

Formal policies and procedures
Employment law and university policy on contractual and matters including diversity were commented on by 24 respondents. The two areas of advice dealt with were recommending knowledge of "rights" and diversity targeted opportunities.

"They have certain clearly defined rights that institutions will stick to as a legal duty. Be clear on policies and practice..." (Arts and Humanities)

There were also doubts expressed on the perceived realities of the application and effectiveness of these policies.

4.5 Impact of a period of work outside academia

What is the potential impact of a period of work outside academia on the career of lectureship candidates?

Overall career development themes
The main view on work outside academia as shown in Figure 25 is that it can be a useful element to experience, with 38 respondents choosing "positive" and 18 selecting "negative". The question offered the option to select several answers but the main factors of importance were:

- Types of work was the most important, an option which was selected by 98 respondents.
- Length of time, selected by 38 respondents.
Type of work
The types of work that are viewed most positively are those that relate directly to the discipline, whether parts of professional training or the subject matter, in the relevant industry sector. This is across the disciplines with mention of commercial lab work for physical sciences, editing poetry publications and the comment below from arts and humanities:

“If it is closely related to the area of expertise, eg work in a museum or archive, it may be highly desirable, and the length is unlikely to be an issue.” (Arts and Humanities)

Length of time
The amount of time advisable is generally seen as short, with one to two years most often mentioned.

This is justified, for the sciences, as being able to keep up to date, whilst a publications gap and dropping out of networks was a reason across all disciplines.

"Working outside the field for a significant time could be very detrimental given the speed at which things advance these days." (Physical Sciences and Engineering)

Negative reasons
The negative reasons against experience outside academia, selected by 18 respondents, build upon the comments above on progress and add the possible negative impact on CV.

"This tends to negatively impact on key deliverables and hence relative CV quality." (Biological and Biomedical Sciences)
5. COMMUNICATING AT INTERVIEW

What top three pieces of advice would you give to lectureship candidates about communicating suitability to fulfil the lecturing position at interview stage?

The details of the analysis are shown in Figures 26 and 27. Most respondents did not formally rank their advice.

**Overall career development themes**

The advice given went beyond three topics falling into the following themes:

- types of evidence;
- personal presentation.

Most respondents concentrated on advising candidates to present a range of evidence. Underlying both themes was the essential need for comprehensive preparation for this stage of selection.

5.1 Types of evidence

There were four top pieces of advice for applicants.

**Figure 26: Interview advice - types of evidence**

- **Research:** Clearly demonstrate past excellence in research and clear, realistic plans for future research - 43% (74) of respondents.

  "Show you have a good publication future as well as track record (ie, ambition as well as capability)." (Social Sciences)
• **Department fit and collegiality:** Demonstrate that they have researched the department and university. Show how they fit through their research and teaching. Demonstrate collegiality and a willingness to get involved in the wider work of the department and university - 39% (68) of respondents.

"Show how their skills are complementary to the department at research and teaching level." (Physical Sciences and Engineering)

• **Teaching:** Show enthusiasm for teaching or have evidence of experience or ability. Be able to state your teaching philosophy or knowledge of teaching methods - 31% (54) of respondents.

"Show you have intelligent thoughts about how you could contribute to teaching in the institution over the next two or three years courses/lecture series you could teach." (Arts and Humanities)

• **Funding:** Give evidence of past funding success or willingness to explore funding. Clearly evidence that they have a plan for grant applications - 13% (22) of respondents.

"Be clear where you are getting funding and for how long this funding is likely to be available. Show that you have thought of the future beyond your current funding sources." (Biological and Biomedical Sciences)

**Discipline specific themes**

There are some differences between the disciplines as shown in Figure 26.

• **Physical sciences and engineering and social sciences:** "Research" was the most popular category of response with 40% (21) and 50% (25) of respondents respectively, followed by comments relating to departmental fit and collegiality with 36% (19) and 39% (20) of respondents respectively.

• **Arts and humanities:** The most common category of response was to departmental fit and collegiality with 47% (16) of respondents, followed equally by comments relating to research and teaching - 41% (14) of respondents - each at least 10 percentage points above the other disciplines, showing the relative importance of this experience. This group have shown the least emphasis on funding success - 6% (2) of respondents.

• **Biological and biomedical sciences:** Equal numbers of respondents stated the importance of research excellence as well as evidence of departmental fit and collegiality - 39% (14) of respondents for each category.
5.2 Personal presentation
There were three top pieces of advice on personal presentation whilst in the interview.

Figure 27: Interview advice - presentation

Applicants were advised to:

- **Match** - provide evidence and good examples demonstrating a clear match to the job description - 20% (34) of respondents.

  "Make it hard for you to be rejected by providing evidence. Work out your fit and contribution to the department (not just whether it's good for you). Practice interview and talk beforehand." (Biological and Biomedical Sciences)

- **Confidence** - be confident and enthusiastic about the role (but don't oversell) - 14% (24) of respondents.

  "Be enthusiastic about the place that is interviewing. Do your homework: find out who the academics are, what they work on and find out about shared research interests." (Social Sciences)

- **Seminar** - deliver a really good and inspiring seminar - 13% (23) of respondents.
6. CHANGES OVER THE PAST 10 YEARS

The survey ended with the only optional question used: "What would you reflect were the biggest changes, if any, over the last 10 years in the requirements for new lecturers in your discipline?" and was answered by 153 respondents, some of whom wrote at length.

Overall career development themes

The main themes which emerged related to higher expectations across all of the areas covered in the survey questions, reflecting the expectation that a new lecturer should be an all-rounder. These expectations concerned:

- research;
- teaching;
- engagement, management and administration.

Candidates are expected to "hit the ground running". This quote sums up the comments on the whole role.

"I think we ask more of new lecturers now because the demands on us have multiplied. Not only are they expected to have published, and taught, but also to have had teacher training to some extent and to be familiar with things like 'impact', 'widening participation', 'external engagement', 'outreach'." (Arts and Humanities)

The overwhelming views expressed on expectations were that:

- the academic profession has become much more competitive compared to the situation 10 years ago;
- REF and funding pressures are influential in this.

6.1 Research

Respondents gave clear opinions on the following three specific indicators of research success:

- quality publications;
- funding;
- achievement of a PhD qualification.

Quality publications

There was repeated and sustained opinion expressed on the importance of high quality publications, and the potential to achieve such publications. The opinion was that this is not the preserve of the traditionally research intensive HEIs, but that there is also more emphasis on research potential amongst the newer universities.

"The number of papers required to get you on the short list keeps increasing." (Physical Sciences and Engineering)

Whilst this demand for early career publications records was recognised, some comments railed against this fact as it was felt to be unfair on "late bloomers" and did not allow for variable candidate environments. Other comments suggested that the
demands stated in job adverts were partially responsible for fuelling inappropriate and unrealistic inflationary demands.

**Funding**

Funding was noted as extremely important across the disciplines with success in obtaining funding being presented as being of dual purpose as both evidence of future potential and independence.

"*The bar has risen. Most lecturers in biology now seem to come from independent research fellowships.*" (Biological and Biomedical Sciences)

**PhD qualification**

There is now a necessity for the achievement of a completed PhD before applying for a lecturing post. This was noted by three of the four discipline groups.

**6.2 Teaching**

Respondents gave indications of a rise in the necessity for high quality teaching, especially with regard to aspects of the student experience. The "competitive market" in HE, with the combination of fee increases and higher student numbers, has been commented on:

"*Whilst research quality is still a huge issue, with the advent of 9k fees, there will be a bit more attention on how well the lecturer will teach than there used to be.*" (Arts and Humanities)

**6.3 Engagement, management, and administration**

As indicated in sections 3.3.1 and 3.3.2 of the survey, engagement, management, and administration did not score highly as separate parts of the skills and experience needed for a new lecturing post. They do, nevertheless, feature in the responses to this optional question.

**Engagement**

There were a number of comments mentioning engagement from all disciplines and for most this is seen as a "desirable" skill, but one which may increase in importance in the future rather than being a present mainstream.

"*Eventually public engagement/impact will also become essential.*" (Arts and Humanities)

**Management and administration**

Management and administration are observed as necessary components of an "all-rounder" rather than being valued for themselves. Concerns about the worsening balance of administration work within the lecturer role were voiced.
7. FUTURE CONSIDERATIONS AND RESEARCH OPPORTUNITIES

This survey has been able to address many of the major aspects of the issues which are important considerations for the development of the earlier stages of an academic career. Both the main findings and the rich range of comments provided by respondents have raised several areas that the research team would recommend could benefit from further research and debate:

Further development of current topics

- University groupings - examine all areas covered in this survey on a larger scale to enable analysis by groupings including Russell Group, post 1992 and Millennium and address the issue of mobility of academics within and between.
- Discipline groupings - examine all areas covered in this survey on a larger scale to enable fuller analysis by discipline groupings and other categories, for example disciplines closely allied to professions.
- Examine all survey topics by addressing them to recently recruited new lecturers requesting reflection on their experiences of the job hunt.

Wider topics

Recruitment and selection and training
Respondents commented on the demands placed on newly appointed lecturers, eg having achieved this significant career milestone the additional duties and expectations placed on them offer further challenges. This raises questions about potential inconsistencies in the recruitment and selection criteria being used, formally and informally, at shortlisting and interview, and the actual range of behaviours, attributes and skills required once in the job. The survey suggests that further research on the following themes would be beneficial:

- Are academic researchers offered, and encouraged to take up, opportunities to develop experience that will prepare them to take on the wider range of duties and roles expected of them in a lectureship?
- Is evidence of research activity in job descriptions and at shortlisting dominating recruitment and selection practice and outcomes? If this is the case, is it having an effect on other aspects of academic practice and, ultimately, on HE colleagues and students?
- Is training and support for newly appointed lecturers widely available and fit for purpose given the increasing and immediate demands placed on them?

Career journeys
A number of respondents commented on aspects of increased competition for posts and how this affected the pace at which academic researchers needed to develop their research and other academic experience.

- Further detailed research on career journeys, including those who may have had a longer or interrupted path to a lectureship, could be beneficial.
APPENDIX 1

Survey questions:

Answer Type Key

<table>
<thead>
<tr>
<th>Drop-down list</th>
<th>DD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free text</td>
<td>FT</td>
</tr>
<tr>
<td>Specific options</td>
<td>SO</td>
</tr>
</tbody>
</table>

All questions were compulsory apart from Q22.

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Answer Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is your academic discipline?</td>
<td>DD</td>
</tr>
<tr>
<td>2</td>
<td>What is your current job title?</td>
<td>FT</td>
</tr>
<tr>
<td>3</td>
<td>What is the name of the university where you currently work?</td>
<td>FT</td>
</tr>
<tr>
<td>4</td>
<td>What length of time spent in academic research is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>5</td>
<td>Please describe the publications record that is expected including frequency, quality and type, as you consider appropriate?</td>
<td>FT</td>
</tr>
<tr>
<td>6</td>
<td>What extent of conference presentation experience is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>7</td>
<td>What level of successful funding applications is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>8</td>
<td>What frequency and nature of collaboration experience is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>9</td>
<td>What frequency and nature of external consultancy experience is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>10</td>
<td>Would you expect interdisciplinary research experience in the profile of lectureship candidates?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>11</td>
<td>What level and extent of teaching experience is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>12</td>
<td>Is formal training in higher education teaching expected prior to appointment?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>13</td>
<td>What frequency and nature of public engagement experience is expected?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>14</td>
<td>What kind of evidence of management and administration experience would you look for?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>15</td>
<td>How important is it for lectureship candidates to have gained experience of academic work at more than one HE institution?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>16</td>
<td>What is the potential impact of a period of work outside academia on the career of lectureship candidates?</td>
<td>SO, FT</td>
</tr>
<tr>
<td>17</td>
<td>What advice would you give to lectureship candidates with over 10 years' academic research experience?</td>
<td>FT</td>
</tr>
<tr>
<td>18</td>
<td>What advice would you give to lectureship candidates who are facing the possibility of a planned or unplanned career break?</td>
<td>FT</td>
</tr>
<tr>
<td>19</td>
<td>What do you see as the top 3 key attributes of good lectureship candidates in your discipline?</td>
<td>FT</td>
</tr>
<tr>
<td>20</td>
<td>Have you had direct experience of recruiting new lecturers in the past 5 years?</td>
<td>FT</td>
</tr>
<tr>
<td>21</td>
<td>What top 3 pieces of advice would you give to lectureship candidates about communicating suitability to fulfil the lecturing position at interview stage?</td>
<td>FT</td>
</tr>
<tr>
<td>22</td>
<td>What would you reflect were the biggest changes, if any, over the last 10 years in the requirements for new lecturers in your discipline? (Optional)</td>
<td>FT</td>
</tr>
</tbody>
</table>
APPENDIX 2

Survey message to participants

Dear Academic Colleague

The Association of Graduate Careers Advisory Services (AGCAS, The UK's national body for university careers and employability services, www.agcas.org.uk/) is in the process of enhancing and expanding its information and careers provision for postgraduate research students and postdoctoral research staff to enable them to plan for a successful academic career. To do so we are gathering information on academic career progression across research disciplines and institutions in the UK. In order to accomplish this goal we want to tap into the vital knowledge of experienced academic staff. We would therefore be very grateful if you could set aside some time to complete the online survey we have created. We are particularly keen to hear from academics who have recently been active in the recruitment of new lecturing staff.

The survey can be accessed at: https://www.surveys.cardiff.ac.uk/agcaslecturing/ and is open from Friday 12 October 2012 to Friday 14 December 2012.

The survey should take just a few minutes to complete, depending on the amount of extra detail you provide. Please note, details that would allow your identification will not be collected and individual Universities will not be identified in the research reports.

The outputs of the survey will be used to:

- Assist Principal Investigators/Research managers and Supervisors in their provision of careers support to their staff
- Provide accessible online information resources to assist with developing the employability of early stage researchers wishing to develop academic careers
- Develop practice to support the career development of researchers amongst careers service personnel and staff developers

These outputs are also aligned with Principles 1, 3, 4 and 5 of the Concordat to Support the Career Development of Researchers.

If you have questions please don't hesitate to contact the survey coordinator and Chair of the AGCAS Research Staff Task Group Josie Grindulis on email Grindulis@cardiff.ac.uk

Many thanks for your participation…
APPENDIX 3

Selected detailed charts

**Figure 28: Collaboration experience by discipline group**
See section 3.1.5: Frequency and nature of collaboration experience

**Figure 29: Consultancy experience by discipline group**
See section 3.1.5: Frequency and nature of external consultancy experience

**Figure 30: Engagement by discipline group**
See section 3.3.1: Engagement experience

**Figure 31: Management by discipline group**
See section 3.3.2 Management and administration experience
Figure 28: Collaboration experience by discipline group

Collaboration Experience

Academic Regular | Academic Occasional | Academic None | Ind/Comm Regular | Ind/Comm Occasional | Ind/Comm None | Public Sector Regular | Public Sector Occasional | Public Sector None | Not for Profit Regular | Not for Profit Occasional | Not for Profit None

Arts and Humanities | Biological and Biomedical Sciences | Physical Sciences and Engineering | Social Sciences
Figure 29: Consultancy experience by discipline group

Consultancy Experience

- Ind/Comm Regular
- Ind/Comm Occasional
- Ind/Comm None
- Public Sector Regular
- Public Sector Occasional
- Public Sector None
- Not for Profit Regular
- Not for Profit Occasional
- Not for Profit None

- Arts and Humanities
- Biological and Biomedical Sciences
- Physical Sciences and Engineering
- Social Sciences
Figure 30: Engagement by discipline group
Figure 31: Management by discipline group

Management - by discipline group

- Arts and Humanities
- Biological and Biomedical Sciences
- Physical Sciences and Engineering
- Social Sciences