University of Southampton

NHS
Health Education England

in collaboration with

National Institute for Health Research

A Cross-Funder Survey of Enablers and Barriers to Progressing a Research-Related Academic Career in the Non-Medical Health Professions

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Introduction

Health Education England (HEE), as part of a review of non-medical clinical academic career pathways, commissioned a survey of factors that enable and inhibit career progression of applicants for a National Institute of Health Research (NIHR) personal research training award.

This initiative was led by HEE in collaboration with NIHR. Other research funders engaged in the review included the Alzheimer's Society, Arthritis Research UK, Diabetes UK, Higher Education Funding Council for England (HEFCE), Kidney Research UK, the Medical Research Council and the Stroke Association.

Each of the funders engaged in the review has an important role in supporting researchers from health professions other than medicine. Between them, they provide a range of mechanisms to support those who wish to progress a research-related academic career.

The overall aim of the research was to help ensure that the potential of the clinical academic workforce can be better realised for the benefit of patients. The research therefore aimed to understand:

- the routes by which healthcare professionals first develop an interest in academic careers and gain first research experience
- the career paths they pursue
- the nature of any enablers and barriers to pursuing a clinical academic career (CAC); and
- how we might best support people through most difficult transitions

Professor Alison Richardson of the University of Southampton led this research project; it was designed and planned in 2016 and fieldwork carried out in the Spring of 2017.

This study brings together for the first time an overview of the career progression of nurses, midwives and allied health professionals (NMAHPs) who wish to pursue independent research and clinical academic careers and of the enablers and barriers to progress in this field. It builds on the recent findings from the NIHR strategic review of training and makes recommendations regarding interventions and initiatives to support such careers and remove unnecessary barriers.

The first phase of the research surveyed applicants to NIHR/HEE fellowship schemes, both awarded and rejected; the second phase surveyed applicants who successfully applied to other funding bodies (Appendix 1 in the full report). Categories of award included doctoral and post-doctoral, clinical and traditional fellowships.

Research methods

In Phase 1, all applicants for whom the NIHR had contact details were invited to take part in the study and complete an online survey. Out of a potential 904 applicants, 231 eligible responses were received. The fieldwork was carried out between March and May 2017 (Appendix 2 in the full report). In Phase 2, successful applicants to seven additional funding bodies were invited to take part in the survey (Chapter 7 in the full report). The study was reviewed by a research ethics committee and all responses from participants were anonymous.

Key findings: enablers and barriers

It is clear that being awarded a fellowship has a positive impact on careers. The award of a fellowship was linked to a greater likelihood of being research active; being more likely to direct and lead their own research team and for post-doctoral award holders being more likely to commission and regulate research.

Most participants in this survey were in the early stages of their career, with a high proportion still undertaking their fellowship. The most common

enablers to supporting progression in research were success in securing funding, experience and skills gained through training or research, and advice, support and guidance.

Most of those awarded a doctoral fellowship encountered some sort of barrier during the transition to their first post-fellowship role; the barriers tended to relate to research roles, including funding, availability of positions and maintaining research activity. Nearly half of the awarded doctoral respondents encountered inadequate support from their employing organisation as a barrier. But in the doctoral fellowship cohort around two thirds considered themselves to be research active (whether unsuccessful or awarded).

This career transition point was acknowledged in the 2017 NIHR strategic review of training as a pinch point and deserving of attention. Support to navigate into the immediate post-doctoral phase is lacking and this therefore tends to be a very challenging phase in a CAC. Since completion of their fellowship, many awarded doctoral participants had transitioned to an academic position or a clinical post (with no formal sessions for research). Many returned to the role they held pre-fellowship or took their first position as it was their only option.

At the post-doctoral level, the awarded respondents were also more likely to have transitioned to a research leadership position (Reader/Professor) since their fellowship and a higher proportion had taken their first position because it fitted with their research career aspirations, demonstrating they had more control and choice over their career trajectory.

Overall, nearly 99% of respondents indicated they were currently pursuing a research related career path – the numbers actually doing research was lower (70% for doctoral and 90% for post-doctoral participants).

Enabling factors and barriers

Enablers

- Being awarded funding
- Experience/skills gained through training and research
- Advice, support and guidance
- Support from a mentor or manager

Potential enablers (related to CAC):

- Clearer career paths for clinical academics (CA)
- Greater integration across clinical and academic departments to support CA roles
- More grant/fellowship funding opportunities
- Greater visibility/number senior CA role models
- Greater alignment: NHS/University employment
- Larger number CA training positions

Barriers

- Availability of positions
- Availability of funding
- Maintaining research activity
- Inadequate support from employing institution

Challenges on completion of higher degree:

- Securing a research-related post that reflected their chosen area of focus
- Securing a post at an appropriate clinical level, that reflected knowledge and skills acquired or where they could sustain some research activity
- Personal research activity

Barriers related to pursuing a CAC:

- Financial implications of pursuing a clinical academic career

Next steps

Build interest in research-related careers

Opportunities to learn about and engage with career researchers should be further developed, including setting up a programme similar to the 'Inspire' programme for undergraduate medical and dental students.

Undergraduate curricula in the different professions should offer similar opportunities to learn about research and build awareness of the potential of research careers.

Retain ICA programme funding, and review arrangements for funding in early post-doctoral career phase

Fellowships provide protected research time at critical career stages and the impact on those awarded one was obvious. Retain opportunities for fellowship funding amongst non-medical clinicians.

Funders should review how to best support individuals immediately following doctoral training, to secure benefits to patient care over the longer term.

Address and clarify career pathways for academic non-medical clinicians

There is an overwhelming need to introduce a career structure for NMAHPs pursuing a clinical academic career. A career pathway to integrate clinical and academic training should be developed to:

- Provide tangible career opportunities suited to the early, mid- and senior stages of a clinical academic career.
- Support development of roles that enable individuals to sustain research activity and put to good use newly acquired skills and knowledge.

Remove barriers to developing a clinical academic career

There needs to be better integration, with agreed principles and guidance, between university academic departments and the NHS – at the moment this lack is a significant obstacle and fails to support existing and emerging talent.

NHS employers should also support people to remain research active. Pay and reward frameworks need to be systematically examined to ensure they don't disadvantage those pursuing a clinical academic route.

These initiatives should enhance recruitment to the ICA pathway and support its long-term sustainability.

The findings from the NIHR Strategic Review strongly reinforce the need for such a review and provide the opportunity to develop a framework for academic non-medical clinicians to effectively combine clinical and research strands of work.

Enhance mentorship and career support

Funders, university academic departments, NHS employers, professional organisations and senior academics all have a responsibility to provide tailored careers advice and mentorship at all stages of a career. All these stakeholders play a key role in ensuring nurses, midwives and allied health professionals pursuing a research-related career get access to the information, advice and support needed. A framework should be devised to illustrate career routes and opportunities for academic non-medical clinicians and used consistently by organisations, such as NHS Health Careers and NIHR.

Review long-term destinations and roles

As the ICA programme is only 10 years old, respondents to this survey were largely early on in their careers. A survey similar to this one should be repeated in five years to assess the long-term impact.

About the authors

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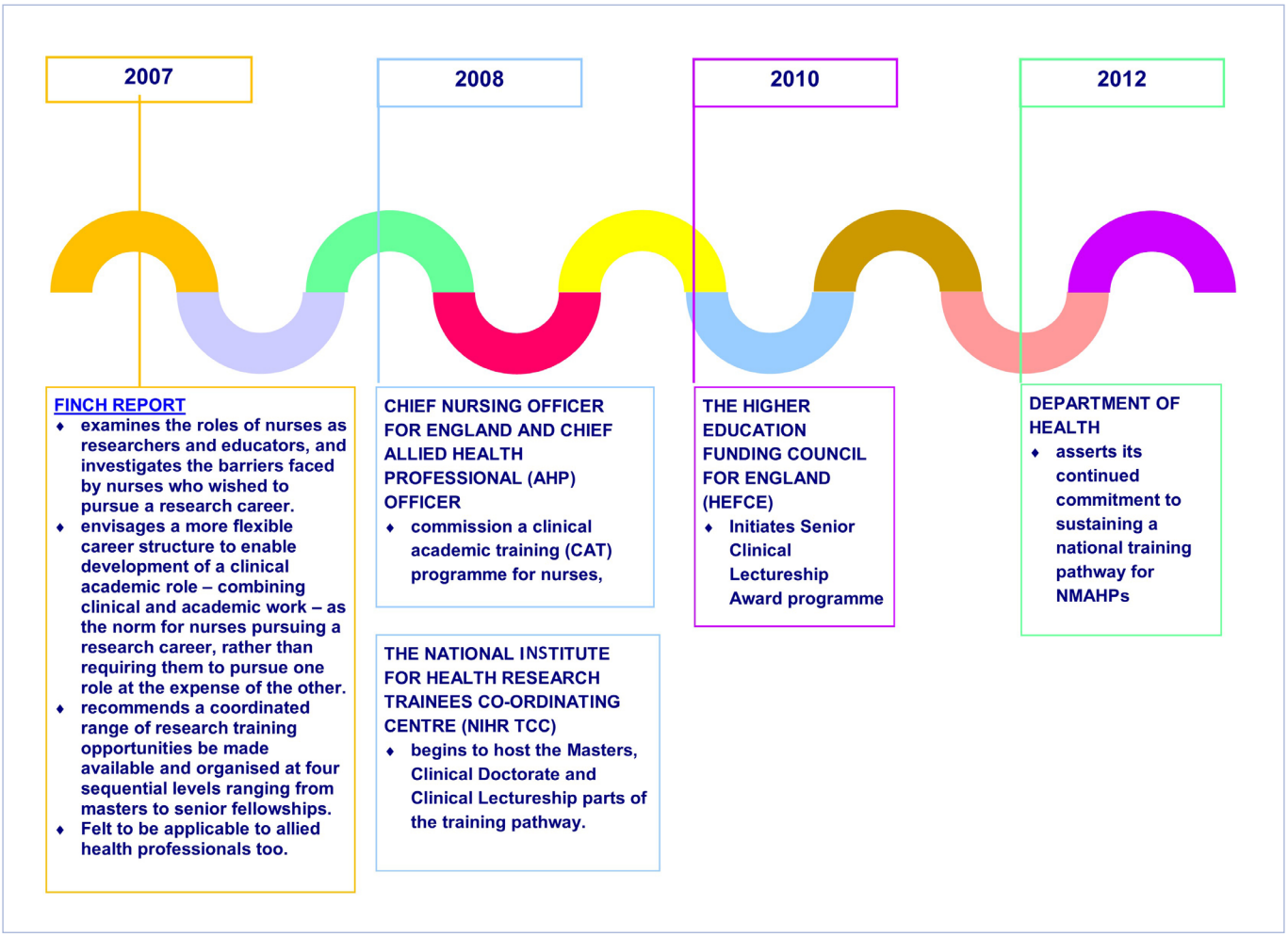
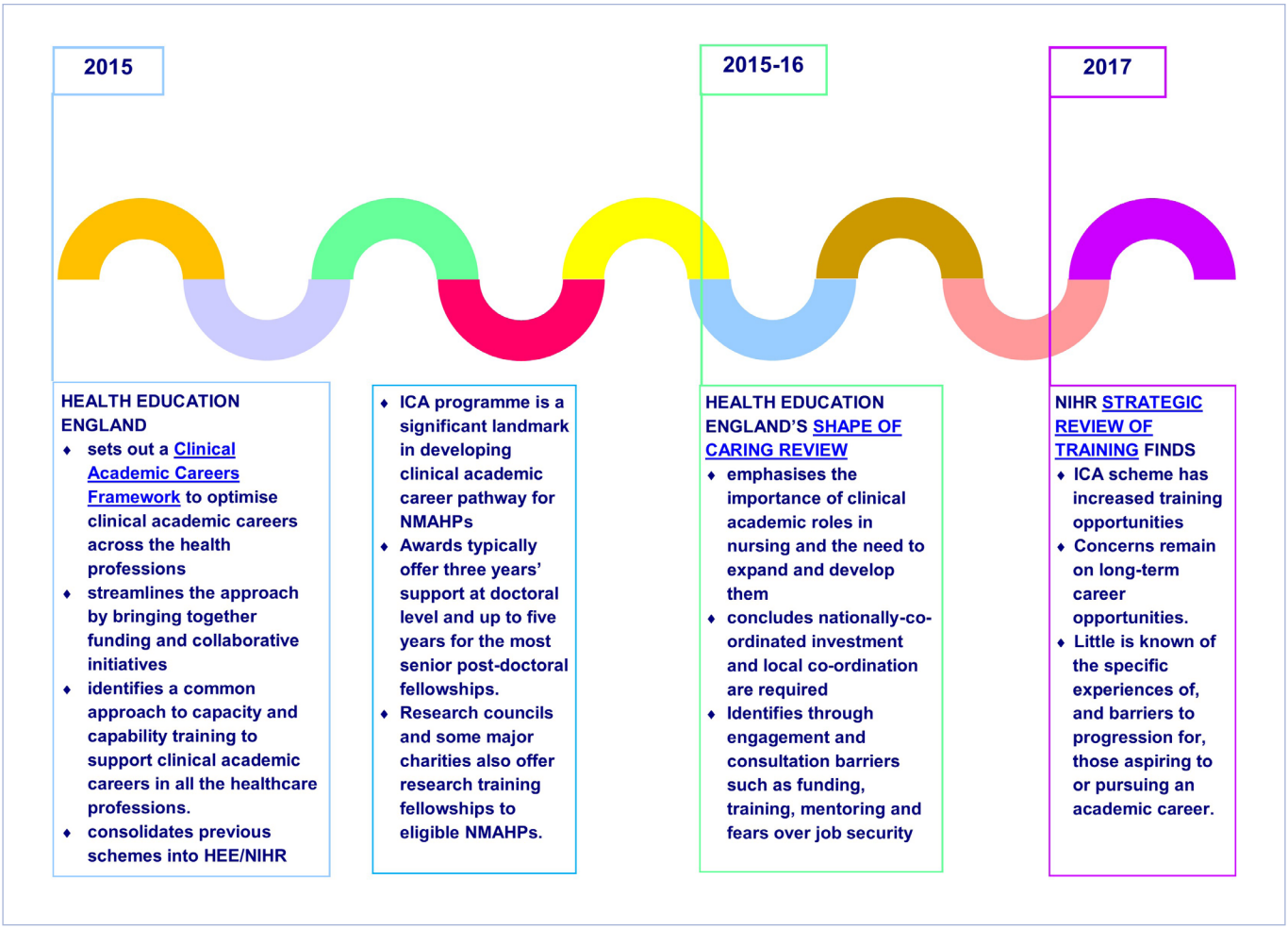
Professor Greta Westwood is Chief Operating Officer at the Florence Nightingale Foundation.

Progress towards building clinical academic careers for NMAHPS 2007-2012

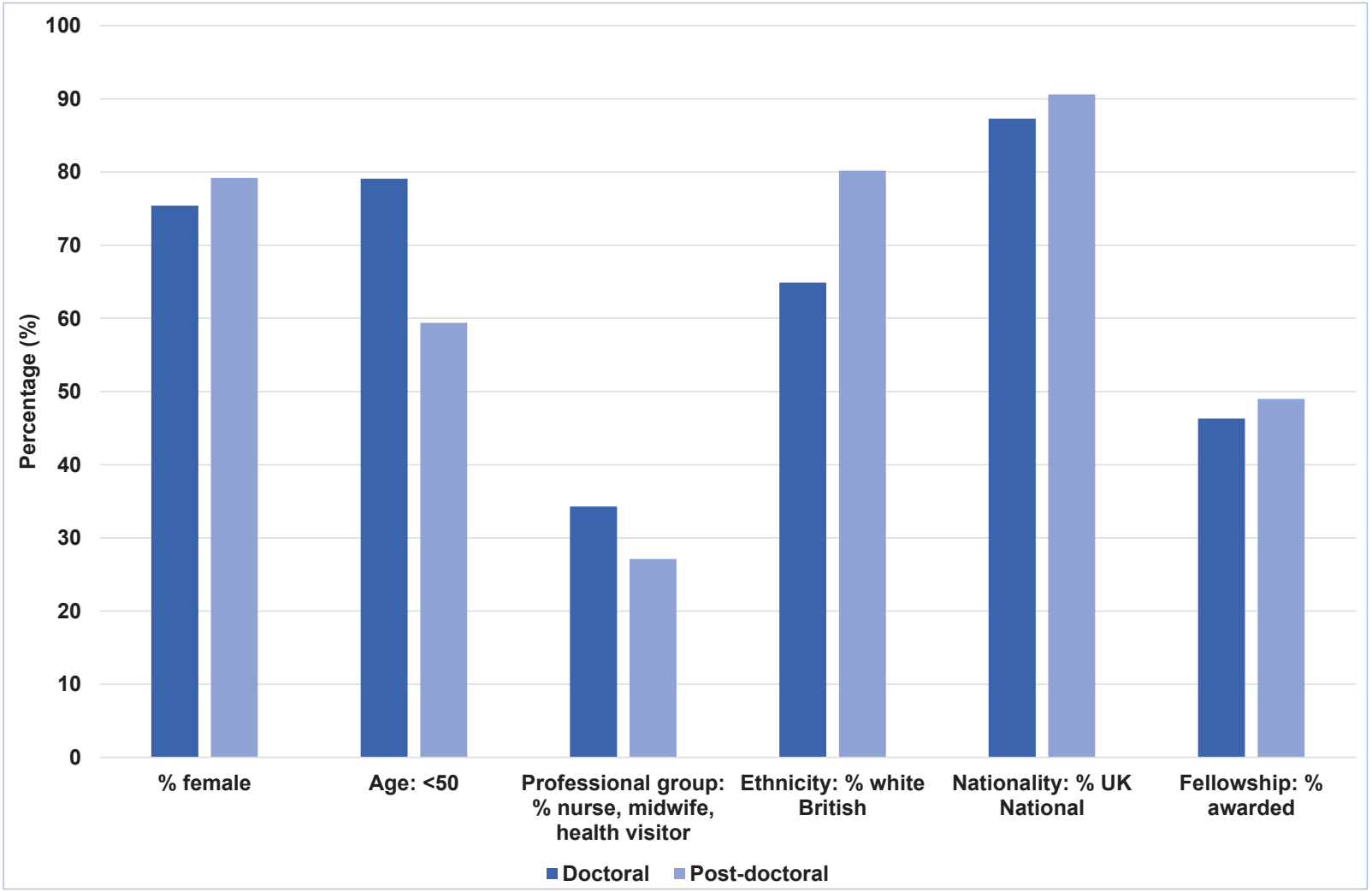


Progress towards building clinical academic careers for NMAHPS 2015-2017



Profile of study participants: Phase 1 respondents

Demographics of study participants

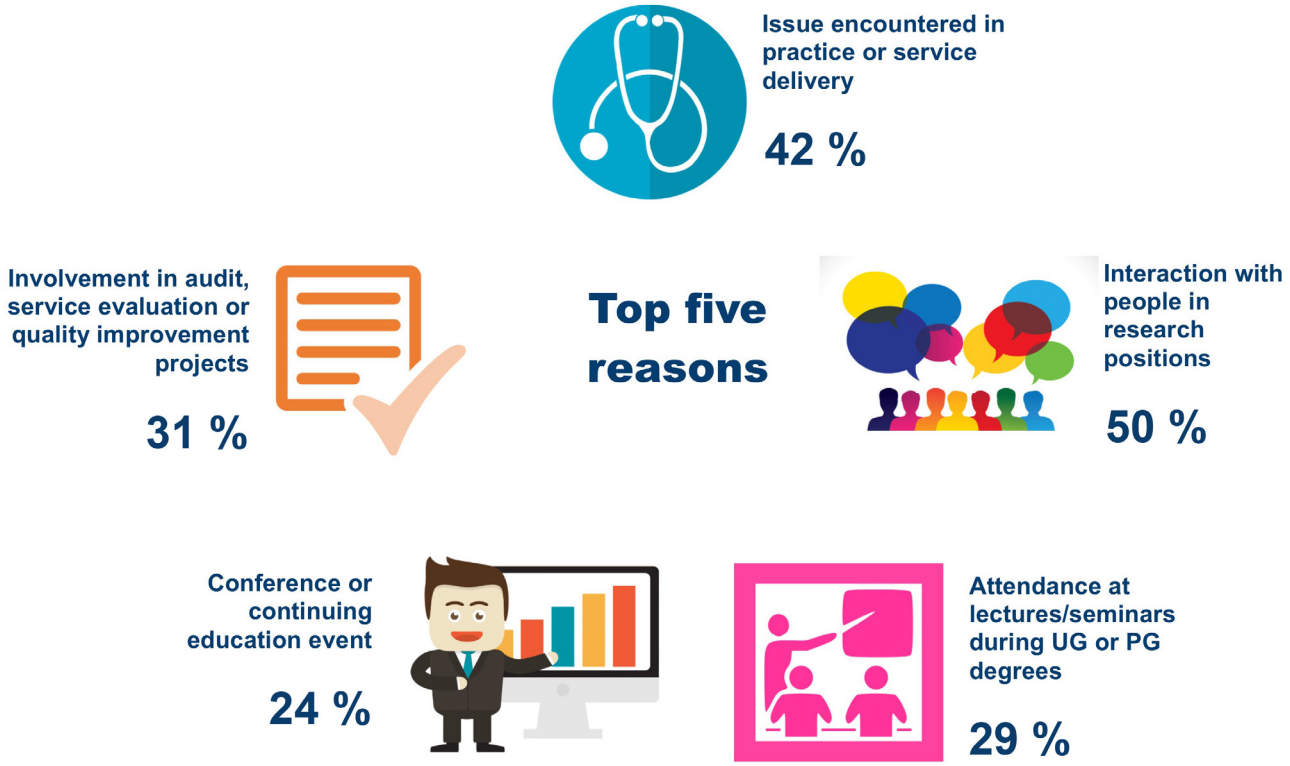


Doctoral: Three-quarters of the 134 respondents were female and a slightly higher proportion under the age of 50. Two thirds were of white British origin. The majority comprised allied health professionals, health care scientists or pharmacists and only a third were nurses, midwives or health visitors. 46% of the doctoral group were awarded fellowships.

Post-doctoral: In this group of 96 respondents, almost eight out of 10 were female and just over half were under the age of 50. Almost two thirds were from the allied health professions, health care scientists or pharmacists, 27% were from nursing, midwifery and health visitor professions. A larger proportion (80%) than the doctoral group identified as white British. Almost half of the post-doctoral group (n=47) were awarded fellowships (see Graph 'Demographics of study participants' on page 6).

Overall, when considering all respondents, interest in research was most commonly sparked by interaction with people in research positions or issues encountered in practice or service delivery (see Figure 'What sparked an interest in research?' on page 7).

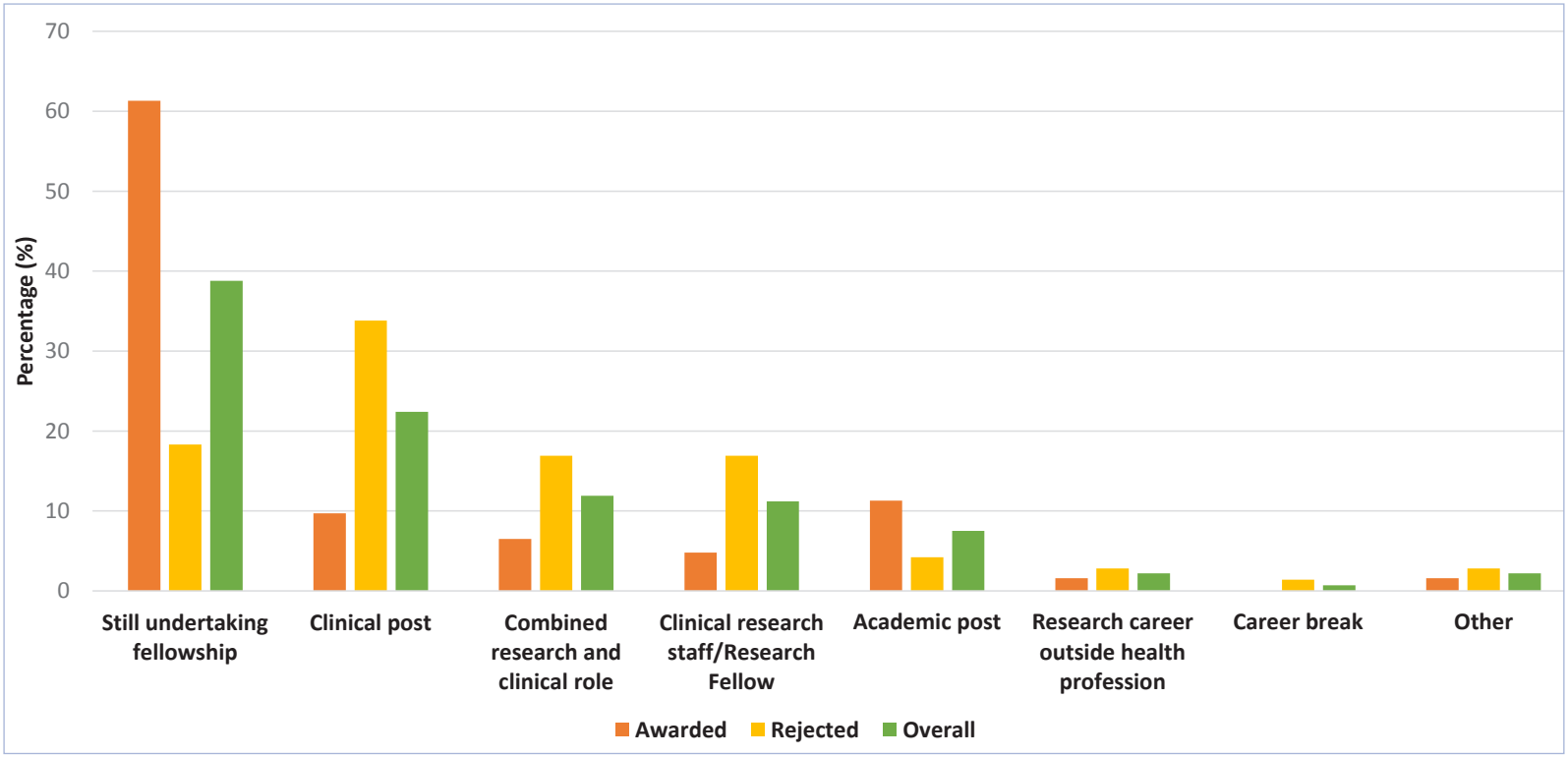
What sparked an interest in research?



For this survey question, respondents were given a list of potential ways their interest in research was sparked, and were able to select all that applied to them.

Doctoral applicants

Current roles: doctoral respondents



Definitions of roles in the graph:

The 'academic post (University employee) category also now includes the following categories from the survey: Research fellow (University employee), Academic Lecturer (with no sessions funded for clinical work) and Academic Senior Lecturer or Associate Professor (with no sessions funded for clinical work) and those that indicated in 'other' they were a Senior Research Fellow or Research Associate (Senior or not).

The combined research and clinical role includes the following categories from the survey: 'clinical post (with some sessions funded for research)', 'a post that combines clinical and research duties', academic clinical lecturer and academic senior clinical lecturer or a combined role specified in 'other'.

The 'clinical research staff/ Research Fellow (NHS employee)' category also now includes the category: 'research fellow (NHS employee)' from the survey.

The 'Reader/Professor (clinical or non-clinical) category includes the category: 'clinical professor' and also those that specified in 'other' their role as 'reader' or 'non-clinical professor'.

Those that indicated in 'other' that they had separate clinical and research roles, were included in both categories – 'clinical post with no sessions funded for research' and also 'academic post (University employee).

Current role: doctoral respondents

Of those that were not still undertaking a fellowship or funded programme of study, the highest proportion of awarded respondents were in an academic post. There was also a similar number in a clinical post with no research sessions.

A smaller proportion of the rejected doctoral applicants were still undertaking a fellowship/funded programme of study (18.3%). The highest proportion (one third) of the rejected doctoral cohort were in a solely clinical post with no research sessions. A combined research and clinical role or a Clinical Research Staff role were both commonly indicated roles by the rejected cohort (both 16.9%) (see Graph 'Current roles: doctoral respondents' on page 8).

Research active status: doctoral respondents

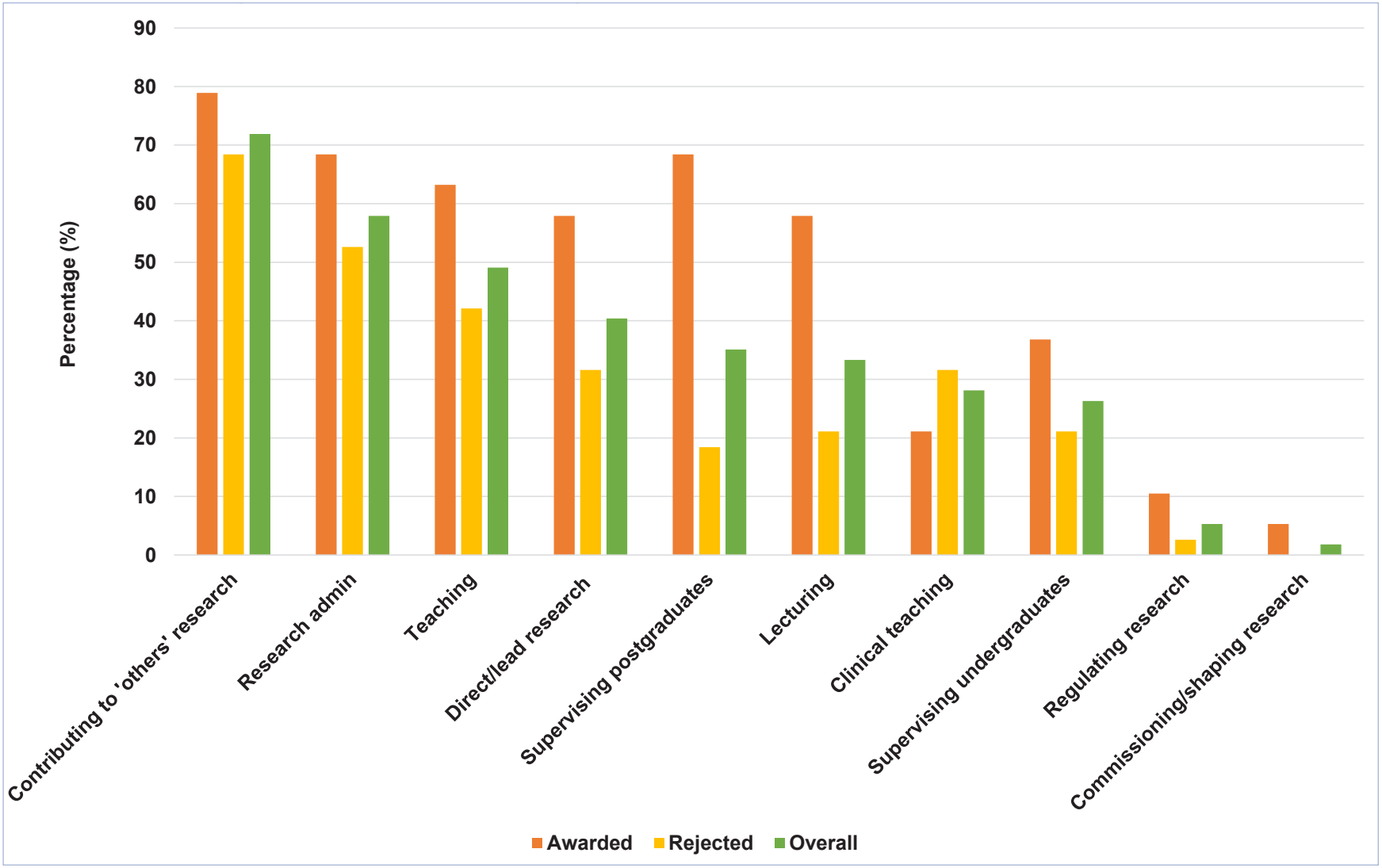
Nearly 70% of the 82 doctoral applicants (who were not undertaking a fellowship) indicated they were research active in their current role; the data showed that 79.2% of awarded respondents and 65.5% of rejected respondents were research active in their current role (See chart 'Current roles: doctoral respondents' on page 8).

Types of research: doctoral respondents

People who indicated they were research-active in their current role (n=57) were most commonly contributing to research led by others. Award holders were more likely to be teaching, lecturing, leading their own research programmes and supervising postgraduate or undergraduate student projects.

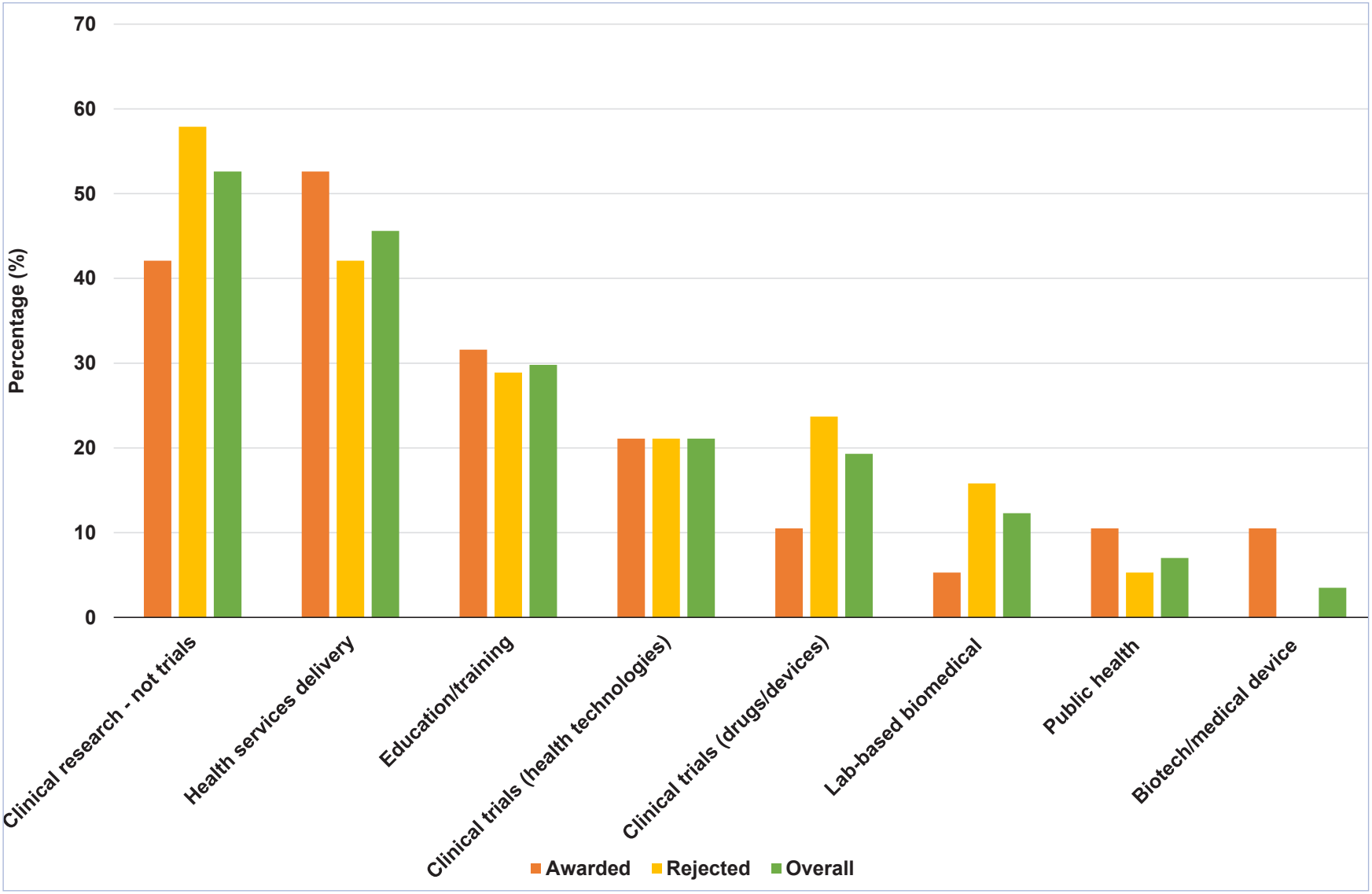
There was only one doctoral applicant involved in ‘commissioning and/or shaping research strategies and/or major funding decisions’ and only three were ‘regulating research’, activities often more consistent with the later stages of a research career (See chart 'Type of research activity: research active doctoral respondents' on page 10).

Type of research activity: research active doctoral respondents



Areas of research activity: research active doctoral respondents

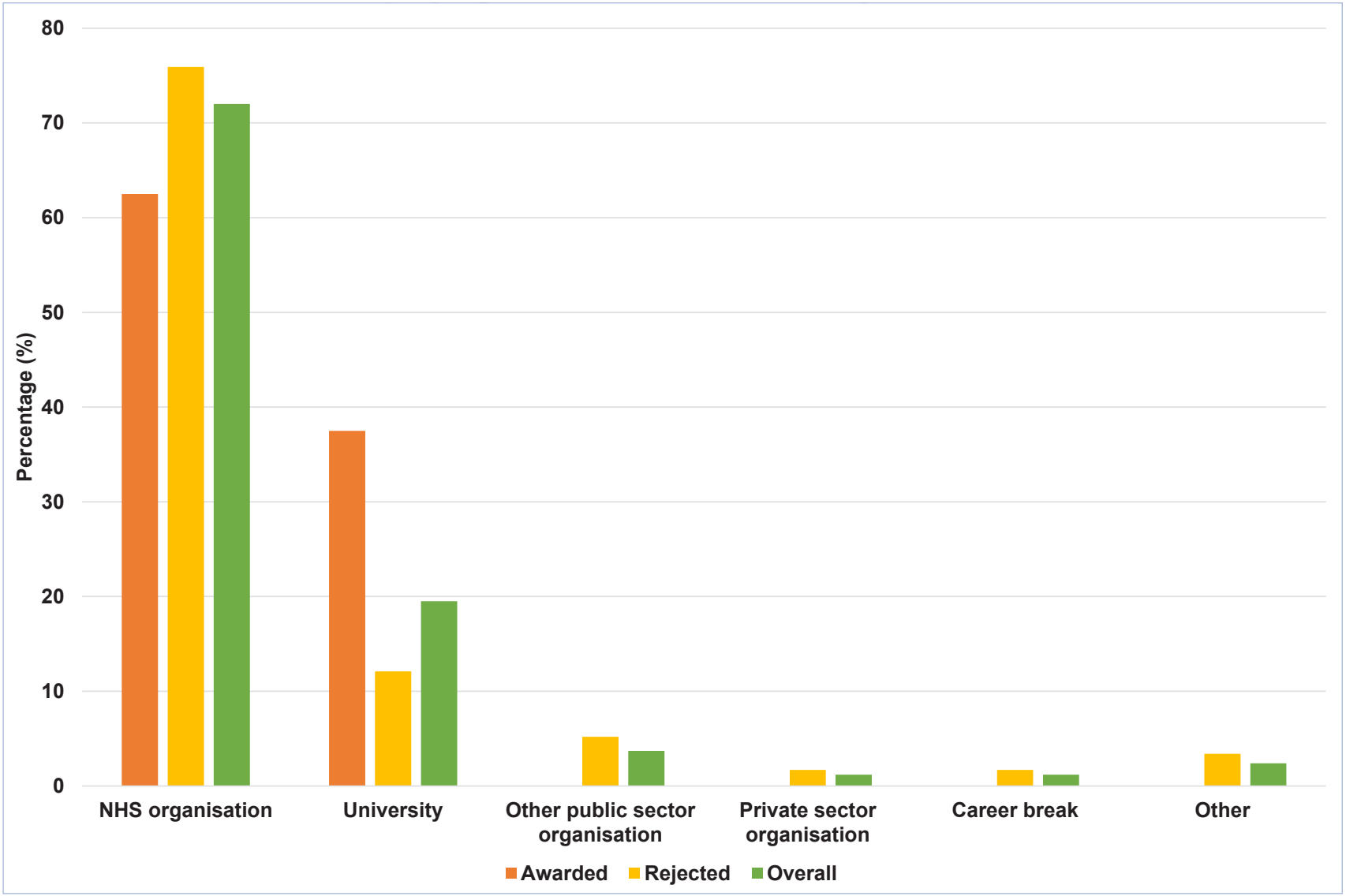
The most common areas to be involved in are clinical research (other than trials) and health services and delivery research.



Employers' profile: doctoral respondents

Nearly three quarters of respondents were employed by the NHS, with the next largest proportion being based in universities. Awarded participants were more likely to be employed by a university than rejected respondents (See chart 'Employing organisation of survey respondents: doctoral' on page 13).

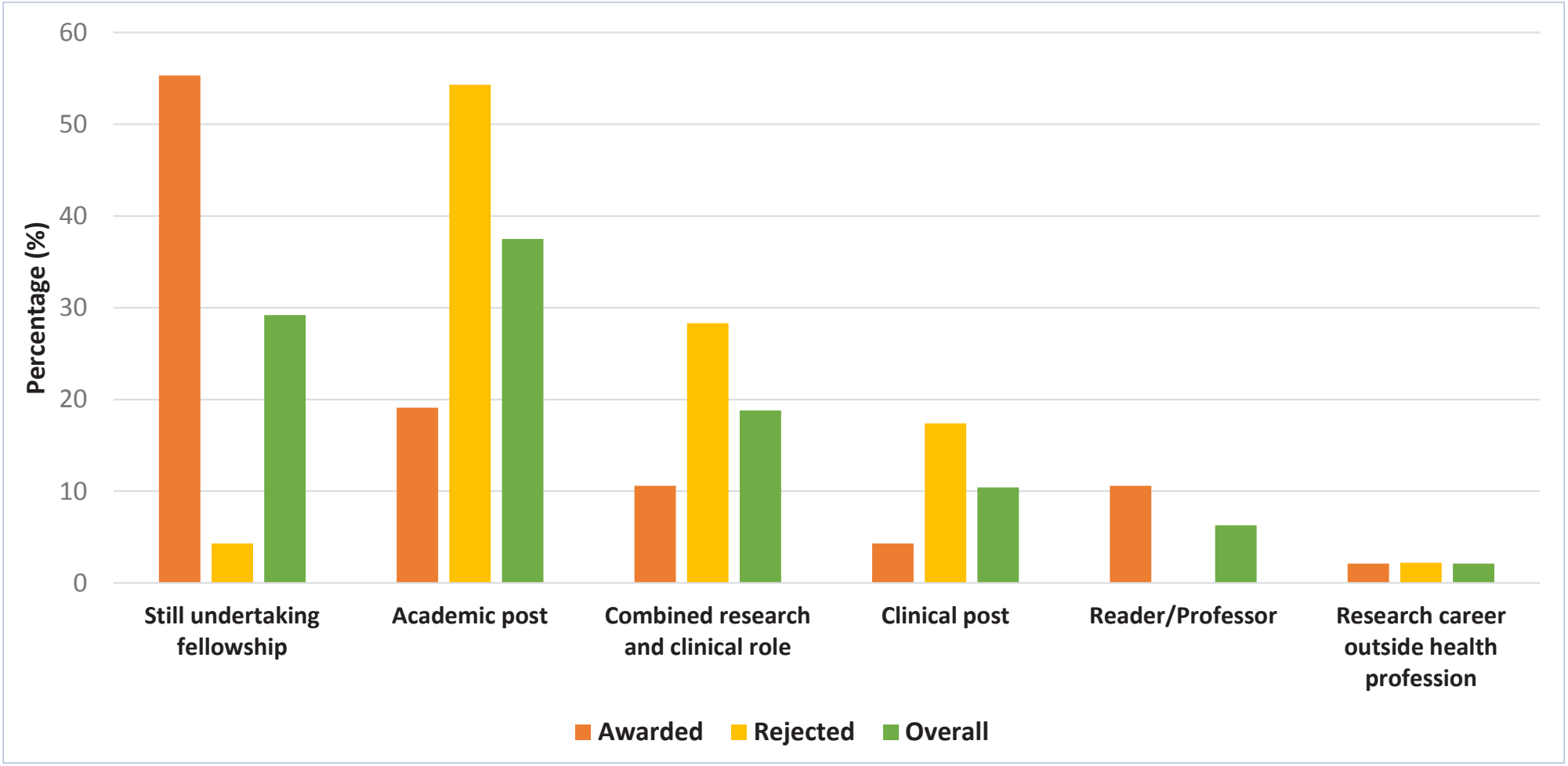
Employing organisation: doctoral respondents



Post-doctoral applicants

Over half of the awarded post-doctoral applicants were still undertaking a fellowship/funded programme of study. Excluding these, the highest proportion of both awarded and rejected respondents were in an academic post. One in 10 of the awarded respondents were in the position of Reader/Professor, but none of the rejected respondents were in this role (See chart 'Current roles: post-doctoral respondents' on page 15).

Current roles: post-doctoral respondents



Profile of research activity: post-doctoral respondents

The data here apply to those who were not undertaking their fellowship but were research active.

The most common activity was supervising post-graduate student projects (85% of both awarded and rejected) and the same proportion of awarded respondents also contributed to research led by others.

Awarded respondents were more likely than rejected respondents to be:

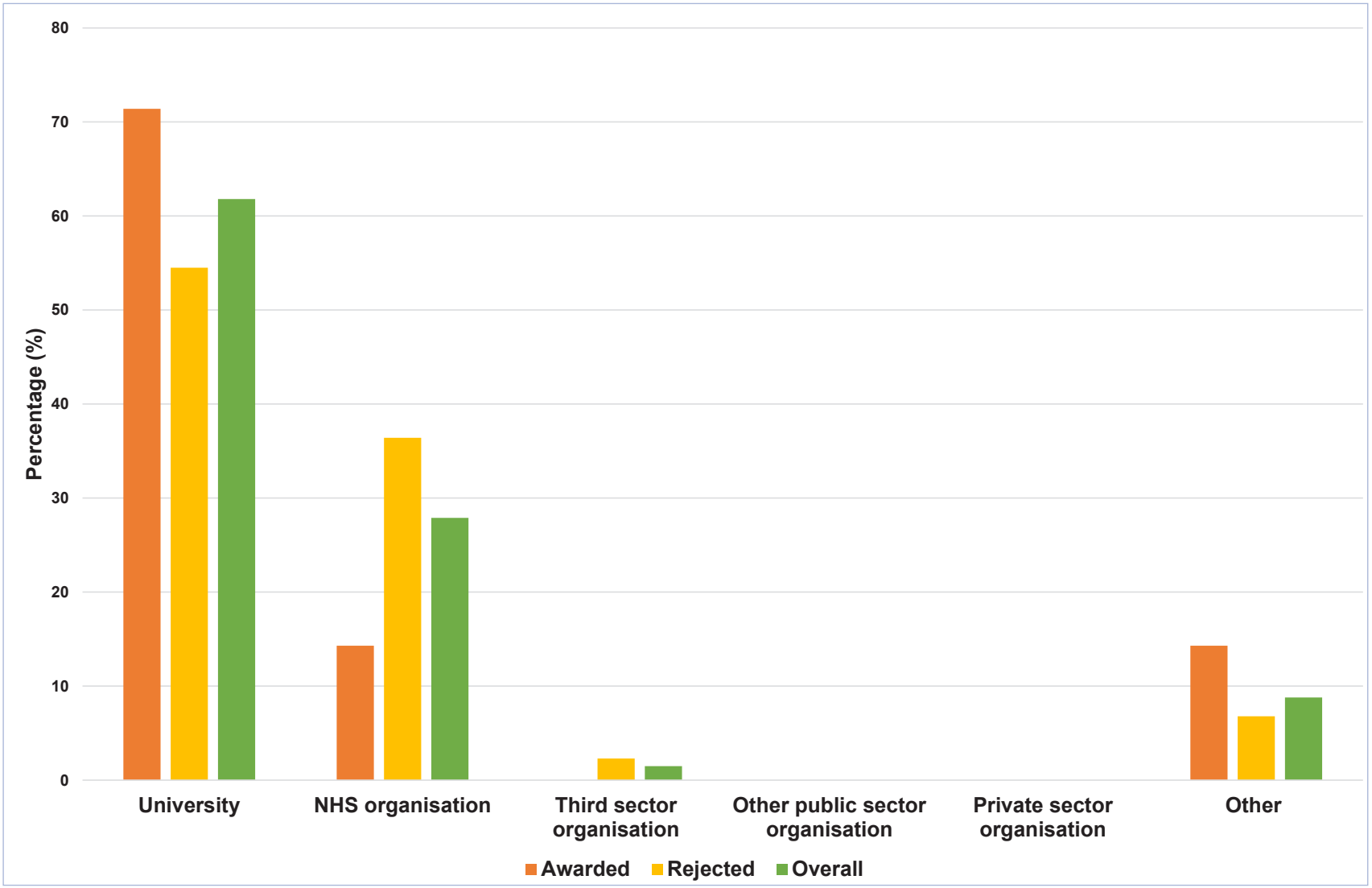
- Directing/leading their own research programme(s) and team (80% versus 60%).
- Commissioning research and/or shaping institutional research strategies and/or major funding decisions (25% versus 12.5%).
- Regulating research (25% versus 5.0%).
- Contributing to work led by others (e.g. by providing clinical/health material, subject or technical expertise, and/or data) (85% versus 75%).

Rejected post-doctoral applicants were more likely to be supervising undergraduate student projects compared with awarded applicants (52.5% and 45% respectively).

The highest proportion of both awarded and rejected post-doctoral applicants were involved in health services and delivery research, and over half of both groups were involved in clinical research other than trials.

More of the awarded post-doctoral applicants were involved in clinical trials (whether health technologies, drugs and/or devices) than rejected respondents (65% versus 40%).

Employers' profile: post-doctoral respondents



Employers' profile: Post-doctoral respondents

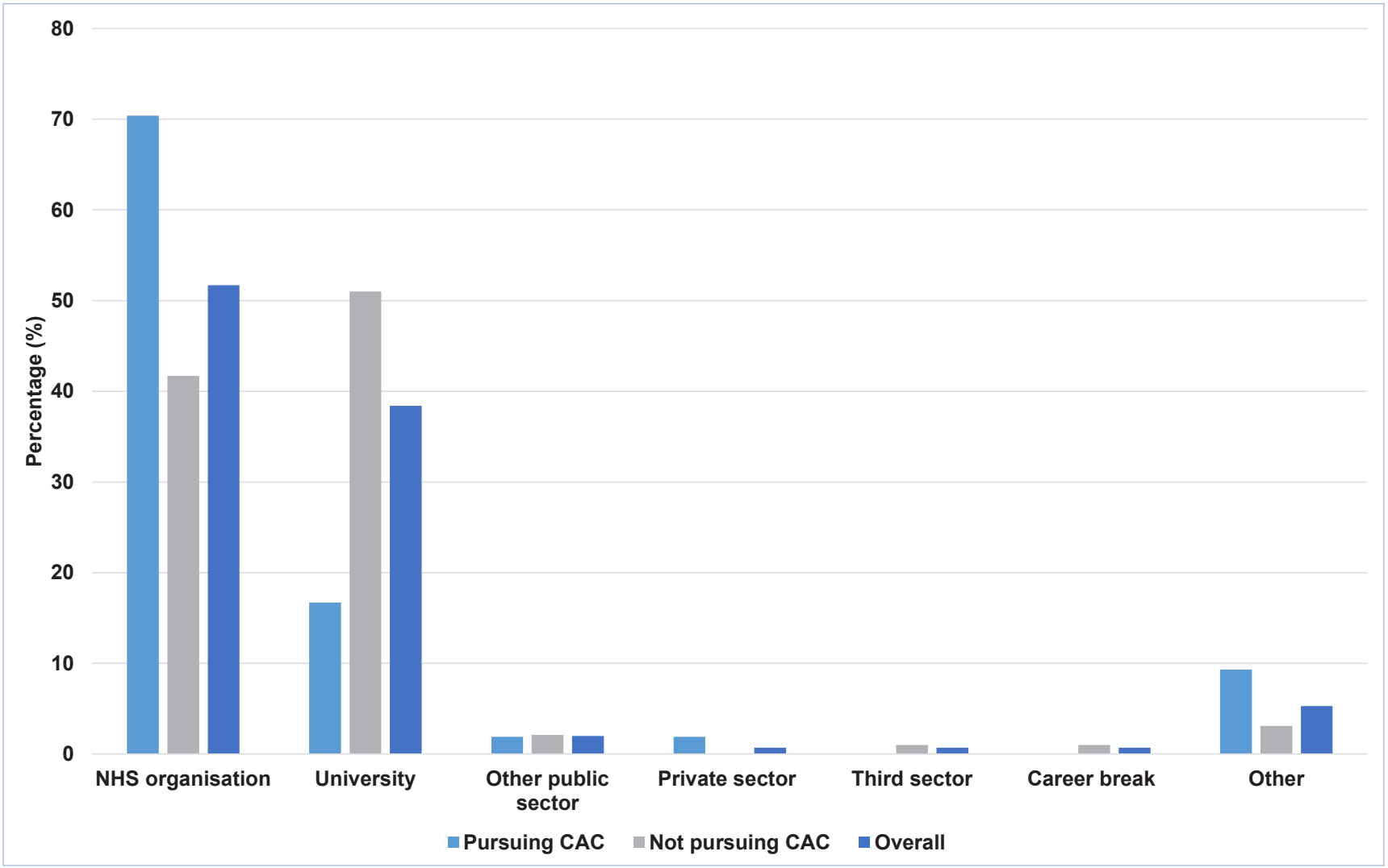
In this study, universities emerged as the major employer of both awarded and rejected post-doctoral applicants. The NHS is the employer with the next largest number.

Awarded post-doctoral applicants are more likely to be employed by a university than rejected applicants.

Rejected respondents are more likely to be employed by the NHS than the awarded participants (See 'Employers profile: post-doctoral applicants' on page 17).

Integrated clinical academic career (ICA) pathways

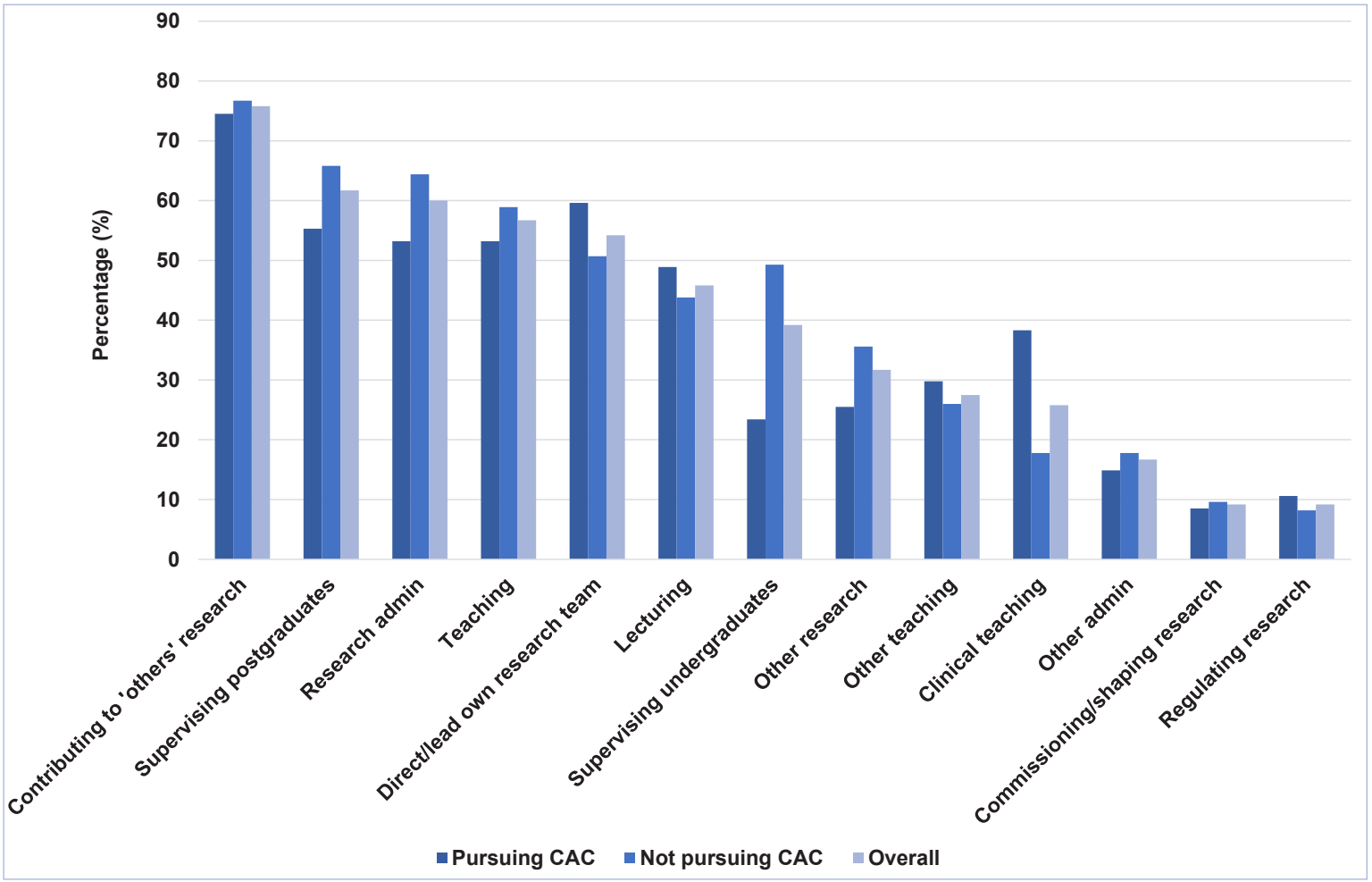
Employers' profile: a clinical academic career



Types of research activity

87% of those pursuing an integrated clinical academic career were research active in their current role compared to 76% of those not pursuing this pathway.

The chart shows the types of research which respondents are involved in, whether or not they are pursuing an ICA career pathway, although the findings are similar for both groups.



Glossary

Fellowship/funded programme of study

This group of survey respondents included those that indicated they were still undertaking their fellowship, or were a holder of a (senior) clinical research training fellowship of some type from an external funder or those who specified that they were still undertaking their fellowship, PhD or holder of any type of fellowship. This includes those still undertaking their fellowship funded by NIHR/HEE and those funded by other sources.

For the purposes of this report:

Awarded applicants. The term 'awarded doctoral applicants' refers to doctoral applicants that had completed a PhD from 2011 onwards or were still undertaking their PhD funded by NIHR and/or HEE. The term 'awarded post-doctoral applicants' refers to those who indicated that their most recent application was successful.

Rejected applicants. The term 'rejected doctoral applicants' refers to those that have not been 'awarded' (as defined above) and the term 'rejected post-doctoral applicant' refers to those who indicated that their most recent application was not successful.

Integrated Clinical Academic Career pathway

- The ICA Programme offers personal research training awards for non-medical healthcare professionals who wish to develop careers that combine clinical research and research leadership with continued clinical practice and clinical development.
- ICA Programme awardees enjoy salaried time to undertake fully funded independent research and a bespoke training and development package. The programme comprises five levels of award, which together offer a career pathway for aspiring and developing non-medical clinical academics:
- HEE / NIHR ICA Internships
- HEE / NIHR ICA Pre-doctoral Clinical Academic Fellowships
- HEE / NIHR ICA Clinical Doctoral Research Fellowships
- HEE / NIHR ICA Clinical Lectureships
- HEE / NIHR ICA Senior Clinical Lectureships

The Programme exists to support the development of registered non-medical healthcare professionals conducting research that fits within the NIHR remit and HEE priorities.

Find out more here

Find out more about the eligible professions here

NIHR Fellowships

NIHR Fellowships will support individuals with the potential and on a trajectory to become future leaders in NIHR research. The Fellowships have been designed to support people at various points of their development to become leading researchers, from initial pre-doctoral training to senior post-doctoral research. Four different types of Fellowship will be available:

- Pre-Doctoral Fellowship
- Doctoral Fellowship
- Advanced Fellowship
- Development and Skills Enhancement Award

Find out more here

Non-Medical Clinical Academics

Healthcare professionals (excluding doctors and dentists) who wish to develop careers that combine clinical research and research leadership with continued clinical practice and clinical development.

Clinical academic roles are joint appointments between a healthcare provider and a higher education institution with both organisations supporting the post.

Non-medical clinical academics work in health and social care as clinicians while conducting research in parallel to improve the outcomes for patients they care for. A successful clinical academic will demonstrate that they are both an excellent researcher and a leader in their clinical field.

Clinical research roles

- The NIHR Clinical Research Nurse is vital to the NIHR in delivering research. They provide and deliver high quality patient care as well as dealing with data collection, follow-ups, patient groups and industry; most importantly of all, they develop and build multi-disciplinary teams that deliver research.
- Allied Health Professionals (AHPs) play a vital role in the delivery of high quality, patient centred clinical research across the NIHR. AHPs represent the third largest professional workforce in health and social care. Clinical Research Allied Health Professionals are at the core of the NIHR mission "to provide a health research system in which the NHS supports outstanding individuals working in world class facilities, conducting leading edge research focused on the needs of patients and the public".

Useful links

NIHR : Developing our Clinical Research Nursing Strategy 2017-2020

NIHR video: What clinical research nurses love about their role

A copy of the full report can be found here

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