Insights from the UK-wide survey of the Research and Innovation Workforce 2024

BIT

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0. Glossary of Abbreviations

AI	Artificial Intelligence
BEIS	Department for Business, Energy and Industrial Energy (dissolved)
BERD	Business and Enterprise R&D data
BERTopic	Bidirectional Encoder Representations from Transformers Topic Modelling
BIT	Behavioural Insights Team
BBSRC	Biotechnology and Biological Sciences Research Council
CEO	Chief Executive Officer
DSIT	Department for Science, Innovation and Technology
EPSRC	Engineering and Physical Sciences Research Council
ESRC	Economic and Social Research Council
HESA	Higher Education Statistics Authority
IRO	Independent Research Organisation
MRC	Medical Research Council
NHS	National Health Service
ONS	Office for National Statistics
PSRE	Public Sector Research Establishment
RCT	Randomised Controlled Trial
R&D	Research and Development
R&I	Research and Innovation
SOC	Standard Occupational Classification
UKRI	UK Research and Innovation

1. Executive Summary

1.1 Rationale for the R&I Workforce Survey

The government's priority mission is to deliver growth and raise the living standards for working people in every part of the UK. The UK's modern Industrial Strategy[1] recognizes that innovation, enhancing skills, and accelerating access to talent are essential components for delivering growth and aims to attract, develop and retain the diverse range of talented individuals and teams that are needed to realise the UK's ambition in high growth sectors.

The aim of this research project was to undertake the second wave of a survey capturing data across all sectors of the UK's wider research and innovation (R&I) workforce. This enables the Department for Science Innovation and Technology (DSIT) to improve strategic analysis of current and future R&I policies designed to develop talent and skills, attract people to work and remain in the UK R&I workforce and ensure that the working environment is diverse and inclusive. It also allows DSIT to track progress over time, being able to compare 2024 responses with the first survey wave in 2022.

1.2 Sample overview

The survey was conducted online with an open link that could be shared widely. Recruitment took place through a range of channels, largely consisting of mailing lists from recipients of UKRI grant finding and applicants of Innovate UK funding as well as individuals who completed the 2022 wave who agreed to be recontacted, DSIT and wider stakeholder mailing lists, and promotion via social media (see section 2.2.1 for further details).

The survey aimed to capture the full spectrum of the UK R&I workforce. However, given the recruitment channels used and the lack of a R&I workforce population register, the sample is not representative of the whole UK R&I workforce. Despite this limitation this remains the largest survey of the R&I workforce in the UK. Workers in some types of work were more likely to be reached, especially those who have previously received UKRI funding or applied for Innovate UK funding. More details on the sample are provided in section 3 below.

[1] https://www.gov.uk/government/publications/industrial-strategy

The survey was initially launched on the 30th July 2024 and remained open until the 30th of September. [2]= 9,653) worked in higher education, 18% (n = 2,660) in the private sector, and 19% (n = 2,814) in 'other' sectors.[3]

Compared to the 2022 wave, which recruited 7,519 respondents, the 2024 data was similar in terms of the proportion who worked in higher education (64% 2024; 66% 2022) and the private sector (18% 2024; 22% 2022), though had slightly more working in other sectors (19% 2024; 12% 2022). The 2024 sample also had a lower proportion of British citizens (67% in 2024 vs 75% in 2022). The sample composition of the 1,263 respondents who completed both the 2022 and 2024 surveys and consented to data linking remained highly similar.

1.3 Key findings

1.3.1 Type of R&D activity and outputs

Engagement in research activities

- Out of the total sample of 15,168 respondents, applied research remained the most common research and innovation activity among respondents in 2024 (79%), followed by basic research (68%) and experimental development (52%). Patterns differed across sectors: while higher education was broadly consistent with the overall results, experimental development, innovation management and market research were more prominent in the private sector.
- Educational attainment shaped activity engagement: doctorate holders more often reported involvement in basic (76%) and applied research (83%), compared to those with lower qualifications (46% and 72% respectively for other postgraduate qualifications and 52% and 68% respectively for undergraduate degrees and below). This finding could also reflect that more of those with a doctorate worked in higher education (80% vs 25% with other postgraduate qualifications and 20% with undergraduate or below), emphasising the relationship between sector and demographics is difficult to tease out in a survey.

Time allocation to research activities

[3] Other sectors comprised all the other sectors that were not higher education or private. They were grouped due to the small sample size within each individual sector (1%-5% of the sample). The other sectors were: independent research organisations (IROs), Local or national government, National Health Service, non-profit organisation, charity or community organisation/s, other public and independent organisations, public sector research establishments (PSREs), UKRI research institutes, and 'other'.

- Respondents were asked which research or innovation activity took up the largest share of their working time during the last six months (n = 15,168). Applied research took up the largest share of working time for 40% of respondents, followed by basic research (27%), R&D or innovation management (13%), and experimental development (10%). This pattern was consistent with those working in higher education.
- Private-sector respondents prioritised experimental development (28%), innovation management (24%), and applied research (25%), while only 3% reported basic research as the research activity taking up the largest share of their working time. Respondents in 'other sectors' most often reported applied research (38%), followed by innovation management (22%) and basic research (14%).
- The types of activities occupying the largest share of working time showed little change between 2022 and 2024, indicating consistent allocation patterns across survey waves.

Technologies

- In total, 20% of respondents reported working in at least one of the UK's five critical technology areas (Artificial Intelligence, Engineering Biology, Future Telecommunications, Semiconductors and Quantum Economy).
- AI was the most common focus (14% of the total sample), particularly among those working in the private sector.

Research outputs

- The most cited outputs in 2024 included: new knowledge from research and experimentation (87%), academic publications (86%) and knowledge sharing (72%).
- Sectoral differences were clear: academic publications (92%) and new knowledge from research or experimentation, discussed with colleagues (87%) were more common in higher education respondents, while for private sector respondents the most common outputs were from new knowledge (65%) and intellectual property and licensing (51%), and prototypes, new products or processes (50%), and in other sectors most common outputs were new knowledge from research or experimentation (75%), data collection, datasets, databases or data models (61%), and sharing new or existing knowledge (61%),
- Doctorate holders predominantly contributed to academic journals and new knowledge (both 88%), reflecting the emphasis on these outputs in higher education where these outputs were the most commonly reported. In contrast, those with other postgraduate qualifications or below were more likely to report

outputs such as prototypes, improved products, or services.

1.3.2 Sector mobility

The term "sector" in this survey refers to the broad categories of organisations and institutions that make up the R&I workforce. Sectors were defined to capture the diverse nature of the R&I environment, including both public and private sector entities. The following sectors were identified:

- Private sector businesses
- Higher education institutions, e.g. universities
- Further education colleges e.g. general further education and tertiary colleges, sixth form colleges, specialist colleges
- Public sector research establishments (PSREs)
- UKRI research institutes
- Independent research organisations (IROs)
- Catapult centres
- National Health Service (NHS)
- Local or national government
- Other public sector
- Non-profit organisation, charity or community organisation/s

Other sectors comprised all the other sectors that were not higher education or private. They were aggregated for much of the reporting due to the small sample size within each individual sector (1% - 5% of the sample).

Sector experience

- Overall, 55% of respondents reported having worked in one or more sectors besides their current one, with higher education institutions remaining the most common sector to have experience in across the entire sample (78%) followed by the private sector (39%), non-profit organisations, charities, or community organisations (15%).

- The diversity of sector experience varied by educational attainment and career length. Doctorate holders were more likely to have worked in higher education (93% vs 46% other postgraduate degrees and 33% undergraduate degree or below), and less likely to have worked in the private sector (30% vs 59% other postgraduate degree and 66% undergraduate degree or below). Similarly, those with longer careers were more likely to have worked in higher education (84% for over 10 years vs 38% for 0–5 years and 64% for 6–10 years) and less likely in the private sector (36% for over 10 years vs 54% for 0–5 years and 48% for 6–10 years). This may reflect that doctorate holders and those with longer careers were more likely to currently work in higher education.

- The longitudinal data shows that the majority of individuals reported being in the same sector in 2024 as the sector they reported in the 2022 survey. Though

there was more movement away from 'other sectors' (94% remained in higher education, 82% remained in the private sector, 67% remained in other sectors).

Sector collaboration

- Collaboration across sectors remains a central feature of R&I work, with patterns varying by current sector. Overall, 84% of respondents reported collaborating with higher education institutions in their current or most recent role, and 65% had worked with private sector businesses, followed by non-profit organisations (47%) and UKRI research institutes (44%).
- Sector collaboration varied by the current sector that respondents worked in. For example, collaboration with private sector businesses was most common from others in the private sector (84% vs 67% in other sectors and 59% in higher education), collaborations with non-profit were most common from those in the higher education and 'other' sector (51% in both higher education and other sectors vs 28% in the private sector), and collaborations with local or national government was more common from those in 'other' sectors (43% vs 28% in the private sector and 31% in higher education).

Sector transition intentions

- Overall, 47% of respondents indicated they would consider transitioning sectors, with respondents reporting they would transition permanently (33%) or temporarily (20[4] to another sector. The common motivators were better pay and benefits (51%), career progression and development opportunities (45%), and better work-life balance (41%).
- Among those who would consider transitioning (n = 7,097), higher education respondents more often considered moving to the private sector (70%) followed by independent research organisations (51%) and UKRI research institutes (48%). Conversely, respondents in the private sector predominantly considered transitioning to higher education (51%), and independent research organisations (43%). Those in other sectors most often chose the private sector (71%) or higher education (57%).

Reasons for not transitioning

- A large proportion of respondents (n = 6,371) would not consider transitioning at all (40% overall, 45% in higher education, 40% in private sector, 35% in other sectors). A substantial majority (72%) cited being happy with their current sector, with little variation between sectors.

[4] Note: These % do not sum to 47% as respondents could select both "Yes permanently" and "Yes temporarily" to transitioning sectors.

- Respondents in higher education who wouldn't consider moving sector were more likely to report that opportunities to work on a particular topic of interest (23% of respondents) and flexible working hours (14% of respondents) were less available in sectors outside of higher education, compared to those in the private sector (9% and 3% respectively) or other sectors (15% and 9% respectively).

1.3.3 International mobility

Past experience and future intentions to work internationally:

- Nearly half (47%) of the respondents reported having worked outside of the UK at some point in their career. This was higher among respondents in higher education (53%), compared to private sector respondents (38%), and those in the other sectors (32%).
- 25% reported having definite plans or would strongly consider working outside of the UK in the next five years. Non-British citizens were more likely to report intentions to work internationally in the future (34%) compared to British citizens (22%).
- The survey identified a wide variety of destinations for both past international work (among those who had worked outside the UK) and potential future intentions to work abroad (among those who had definite plans or would strongly consider working outside the UK in five years). The United States emerged as the most frequently cited country in both cases (past: 36%, future: 34%). Other most commonly mentioned destinations included Germany (past: 17%, future: 23%), France (past: 11%, future: 13%), Australia (past: 8%, future: 16%) and Canada (past: 7%, future: 15%).
- Longitudinal analysis showed the number of people who said they would strongly consider or have definite plans to work outside the UK in the next five years statistically significantly decreased from 2022 to 2024 (26% to 22%; n = 1,263; $p < .01$). This decrease was largely driven by people working in higher education (29% to 24%; n = 851) and other sectors (16% to 12%; n = 185), and not those working in the private sector who stayed constant at 24% (n = 226).

Drivers and barriers for future mobility:

- Among those considering working outside of the UK in the next five years (n = 8,166), the most commonly cited reasons were better pay and benefits (55%), improved work-life balance (44%) and access to research funding (44%).
- Challenges highlighted by non-British respondents while working in the UK, included the level of pay and benefits (41%), career advancement

opportunities (18%), accommodation (17%), and immigration or visa requirements (17%).

- Personal reasons played a big role in both the decision to leave the UK and the choice to stay. Non-British respondents more often selected proximity to family and friends (45% vs 13% British), lower cost of living (39% vs 28% British), and family members' career or education (19% vs 10% British), for considering international mobility. Similarly, for those choosing to remain in the UK, personal factors were the most frequently selected (60%), followed by being from the UK and not having a strong incentive to move (39%).

- Longitudinal analyses on the reasons to consider working outside of the UK in the next five years indicated people were generally less likely to select the provided response options in the 2024 wave compared to the 2022 wave (n = 543). These differences were statistically significant for availability of job opportunities (28% to 19%; $p < .01$), opportunities to work on a particular topic (45% to 39%; $p < .05$), better work life balance (51% to 44%; $p < .01$), for family members' career or education (18% to 13%; $p < .05$), and better job security (21% to 14%; $p < .01$). This may be partly because respondents were statistically significantly more likely to select 'other reasons' in 2024 compared to 2022 (0% to 11%; $p < .01$) and due to three new items being added to the 2024 wave survey that were not included in the 2022 wave.

1.3.4 Grants

Grant applications and preferences across sectors:

- In 2024, 92% of respondents reported having applied for R&I grant funding during their careers, likely reflecting the study's sampling methodology of mailing lists composed from UKRI grant recipients and Innovate UK grant funding applicants. As with the 2022 findings, higher education respondents reported the highest engagement in grant applications (97%), compared to 89% in the private sector and 80% in other sectors.
- Across the sample, UKRI grant funding was overwhelmingly the most applied for (91%), followed by non-UKRI funding (51%), UKRI PhD funding (48%), and charity funding (47%). Again, this likely reflects the sampling strategy. This ranking remained largely the same among those in higher education. In contrast, among those in the private sector who had applied for grant funding while UKRI grants were still the most frequently applied for (91%), other sources showed a different pattern, with UK Government grant funding (41%), Horizon 2020 funding (28%) and UKRI talent schemes / fellowships (21%) being more common. Similarly, respondents working in other sectors also most frequently applied for UKRI grant funding (81%), followed by UK Government grant funding (49%), charity funding (40%), Horizon 2020 funding (39%).

Challenges and recommendations for grant support

- Respondents who said they had applied for any grant funding for research and innovation in their career (n = 14,003) were also given a free text box to provide suggestions. Common, responses pointed to the simplification of grant application, increased funding and support on applications, and greater transparency in grant selection.

- Additionally, support and funding for career training as well as better alignment of government policy with R&D and R&I goals were also mentioned; including more straightforward immigration between the UK and EU, funding for clinical academics, and enhancements to the peer review mechanism (e.g. higher quality feedback and more consistent double-blind reviews).

1.3.5 Grant funding processes

Perceptions of R&I funding processes

- Of the respondents who were involved directly in research (n = 10,324)[5] half agreed that their research organisation communicates [i.e. Universities, PSREs, Independent research organisations etc.] R&I funding processes well (50%) while 26% disagreed. 48% of respondents agreed that these internal processes are necessary and proportionate, 30% disagreed. Similarly, 44% agreed and 33% disagreed that the processes of public R&I funders for administering grants are necessary and proportionate, and 44% agreed these systems were well-communicated while 28% disagreed.

Time allocation and administrative burden

- Respondents who were involved directly in research reported that they divide a large proportion of their working week on research and non-research tasks. On average, based on their time spent in a typical week, these respondents spent 37% of their time on 'other activities'. These activities included teaching, leadership and management responsibilities, academic networking and dissemination activities, other administrative responsibilities. Producing research took 32% of their time on average, while preparing funding applications accounted for 11%, and grant management related administrative tasks accounted for 9% of their time.

- Time allocation varied by sector, most likely due to the nature of jobs. Respondents in the private sector spend more time on producing research (51%) compared to those in higher education (31%) and other sectors (39%).

[5] Defined as those who were currently doing research as part of a qualification, worked in higher education, public sector research establishments, UKRI research institutes, independent research organisations or catapult centres, and who had applied for or received any grant funding.

Respondents in different sectors spend different amount of time on 'other activities' (15% private sector vs 38% higher education and 26% other sectors). This most likely reflects the nature of jobs in the higher education sector where teaching is a main activity.

- Longer career lengths and more senior roles were associated with a shift away from direct research, towards leadership and administrative activities.

Barriers to grant applications

- Respondents who had not applied for specific funding sources cited various barriers for not doing so. For UKRI, Research Council, or Innovate UK grants, 34% of respondents said grant applications were not required in their role and 18% of respondents reported they were unaware of grant opportunities.
- For Horizon 2020 and Horizon Europe funding, respondents cited the complexity of application processes as main barriers (27% and 24% respectively) along with the process being too long (20% and 19% respectively) and not being aware of opportunities (20% and 18% respectively).

1.3.6 Workplace culture

Organisational support and inclusivity

- The majority of respondents agreed that their organisations foster collaboration with other organisations (77%) and promote diversity and inclusion (75%).
- However, disparities emerged in perceptions of organisational culture supporting diversity and inclusion. White respondents were more likely to agree that their organisation fosters diversity and inclusion (78%). The percentage goes down for non-white respondents: Black (71%), Asian (71%), mixed (69%) and other ethnic groups (66%). Similarly, those with workplace-limiting disabilities reported lower agreement levels (67%) than their non-disabled counterparts (78%).

Barriers to productivity

- Balancing core R&I activities with administrative requirements remains a challenge with 3 in 4 respondents (74%) agreeing with the statement "Administrative tasks and processes take up too much time at my organisation". A larger proportion of higher education respondents (82%) agreed with this statement compared to private sector respondents (82% and 50% respectively).

Confidence in challenging organisational norms

- While 60% of respondents reported their organisations' culture enables them to perform their best work, this was higher in the private sector (85%) than in higher education (52%). Confidence in challenging organisational norms was more

prevalent in the private sector (84%), but lower among women (50% vs 57% for men), and Asian, mixed and other ethnic groups (45%, 46%, 45% respectively, compared to 56% for White and Black respondents).

Workplace behaviour and support

- Bullying remains a concern, with 23% of respondents reporting they had experienced or witnessed incidents in the last 12 months. This was 29% among women and 35% among those with workplace-limiting disabilities.
- Open-text responses that referenced bullying stressed the need for better support systems, improved senior management practices and greater accountability for inappropriate behaviour especially by senior staff.

Suggested improvements

- Key suggestions from respondents to enhance their workplace culture included reducing bureaucracy, ensuring more consistent funding and investment, improving management and leadership practices and fostering a more collaborative and supportive working environment. Increasing diversity, particularly within senior leadership roles, was also a recurring theme in the free text responses, reflecting ongoing challenges in achieving fully inclusive workplaces.

1.3.7 Skills

In this survey, the term 'skills' includes technology, analysis, advanced digital skills, commercial skills, communication, leadership, project management and specialist knowledge. Respondents were given a 1 to 5 scale (from "not at all important" (1) through "moderately important" (3), to "essential" (5)) with responses from 4 to 5 considered important.

Skills needs for current role

- Overall, most skills were considered important to respondents' current roles. The most important skills were communication and working with people (94%), followed by project management (85%), analysis (83%), and leadership (83%).

- The skills rated as important varied by the current sector the individual worked in, where the largest difference was in commercial skills, which were rated as much more important for those working in the private sector (80%) compared to other sectors (36%) and higher education (20%).

- There were also differences in the skills rated as important by career length, where those with a longer career length (over 10 years) more often considered leadership, specialist knowledge, project management and analysis as important compared to those with a shorter career length (0-5 years and 6-10

years). Those with a shorter career more often considered commercial skills as important. However, it's worth noting that those with a longer career length more frequently worked in higher education, whereas those with a shorter career more frequently worked in the private sector, making it difficult to determine whether career length or sector is driving the observed differences.

- The longitudinal analysis of the 2022 and 2024 waves found statistically significant differences for four skills: learning to use a new technology (55% in 2022 vs 62% in 2024, $p < 0.001$), advanced digital skills such as programming (43% in 2022 vs 47% in 2024, $p < 0.001$), commercial skills (29% in 2022 vs 33% in 2024, $p < 0.01$), and specialist knowledge including technical knowledge (89% in 2022 vs 82% in 2024, $p < 0.001$).

Recent training and development

- Training participation remains high across sectors, with 93% reporting they have taken part in at least one type of training or learning and development activity in the last 12 months. There was a preference for informal knowledge sharing (66% internally and 60% externally) and external courses (60%).

- Formal training was more common in higher education (57%) and other sectors (56%) compared to the private sector (27%). Those with postgraduate qualifications tended to report higher levels of engagement in external courses and self-directed learning and interestingly, while these increase with career length, informal knowledge sharing was more popular among those in the earlier stages of their careers.

Government support for training

- Reduced workload and time pressure to access opportunities (64%) and financial support to access opportunities (57%) were the most common support that could be offered to make it easier to access opportunities to train, retrain, or upskill.

- This varied by sector, where those in the higher education sector more often said that a reduced workload would make it easier to access opportunities (72% compared to other sector 61% and private sector 37%) whereas they less often selected financial support to access opportunities.

- Government support for training also varied by highest educational attainment and career length. Those with a doctorate more often selected a reduced workload or time pressure (70% compared to 50% other postgraduate qualifications and 47% undergraduate or below) whereas they less often selected all of the other options. Similarly, those with a longer career more often

selected a reduced workload or time pressure (66% over 10 years, 56% 6-10 years, 54% 0-5 years), and less often selected all of the other options. Again, this could reflect the sample composition where those with a doctorate or longer careers tended to more frequently work in higher education.

2. Introduction

2.1 Background to the research and objectives

The government has an objective to make the UK the best place in the world to work in research and innovation, turning world-leading science and ideas into solutions for the public good. The UK's Modern Industrial Strategy makes clear that driving and supporting innovation as well as enhancing skills and accelerating access to talent is crucial to the competitiveness of our high-growth sectors and to ensuring the UK has the workforce it needs to achieve these goals.

The R&I workforce survey builds a robust dataset about the UK's R&I workforce. It will be used as a key evidence source for:

- informing policy efforts to meet the objective of making the UK a global science superpower
- increasing business R&I
- attracting and retaining top R&I talent

The first wave of the survey was conducted in 2022[6] and the 2024 wave is the second . This report details the findings from the second wave of the survey. Both surveys gathered data on the characteristics of the R&I workforce, the types of work researchers and innovators do, individuals' skills, qualifications and career paths, incentives and motivations in pursuing a career in R&I in the UK, and outputs the workforce produces. This second wave of the survey additionally covered sector mobility, training and learning and development, perceptions of bureaucracy relating to grants and R&I funding, and reasons for not applying for specific grants. It also further explored international mobility and perceptions of workplace culture.

This is the largest government survey taking in all sectors of the wider R&I workforce, and to cover a broader span of R&I activities than R&D as usually defined.[7] Although there are existing datasets relevant to the R&D workforce, such as Office for National Statistics (ONS) Business and Enterprise R&D data (BERD), the UK Innovation Survey, UK Research and Innovation (UKRI) grant funding data and Higher Education Statistics Authority (HESA) data, these primarily focus on providing statistics and cross-sector comparisons on the number and characteristics of the workforce. This survey is unique in focusing on the perspectives and experiences of the R&I workforce, which are not easily captured by existing datasets, designed to enable future data linkage to existing sources, thereby increasing their value. Furthermore, the series of surveys accumulated

[6] DSIT (2023). Insights from the UK-wide survey of the Research and Innovation Workforce 2022.

[7] Definition of R&D workers provided by the OECD's Frascati manual.

across the waves will capture longitudinal data[8] to track changes in characteristics, the types of work, motivations, and outputs from the R&I workforce.

The results set out in this report provide a snapshot of the 2024 R&I workforce. Where applicable, the results of the 2024 survey have also been compared to the 2022 survey, which acts as a baseline for comparison.

2.2 Methodology

2.2.1 Sample frame

This survey used a broad definition to capture the full spectrum of the UK R&I workforce to ensure that those included reflect the general stakeholder and policymaker interests beyond the narrower concepts of 'R&D'. To take part in the survey, respondents were first asked whether their work involved research and innovation. Work in research and innovation was defined as doing any of the following:

- Generate new knowledge, for example by doing research or scientific studies.
- Apply scientific or technical knowledge to a particular organisation.
- Design, test or develop new or significantly improved products or processes.
- Introduce new technologies to a market
- Help firms to adopt or apply new technologies
- Lead or manage teams or projects that do any of the above

Respondents were not eligible to take part in the survey if they confirmed they did not work in research and innovation. Respondents were then asked if they lived in the UK and respondents who did not live in the UK were prevented from taking part in the survey. Next, respondents were asked to confirm their employment status. Respondents who identified as unemployed were asked why they were not in paid work, and those who identified as retired or without need for employment were prevented from taking part in the survey. People who were unemployed for other reasons, e.g. having been made redundant, were able to continue with the survey due to the possibility of them re-entering the workforce in the future (n = 54). However, these respondents were prevented from taking part in certain questions that specifically applied to people currently in employment (see below for details per question). The full data cleaning process is described in the Appendix.

2.2.2 Recruitment

There is a lack of existing sampling frame covering the wider R&I workforce. Consequently, the 2024 wave of the survey followed a similar approach to the 2022

[8] 5,794 from the 2022 wave were eligible for matching with the 2024 wave. 1,263 of those were matched in the 2024 and gave permission for their data to be linked. See Technical Annex for further details.

wave. The survey was conducted online with an open link that could be shared widely. Recruitment took place through a range of channels:

- Email invitations sent to individuals who completed the 2022 survey and agreed to be recontacted, containing a unique link to the survey (n = 4,271)
- Email invitations sent to all recipients of UKRI grant funding, containing a unique link to the survey (n = 66,334)
- Email invitations sent to applicants for Innovate UK funding, containing a unique link to the survey (n = 54,732)
- Email invitations sent by DSIT and wider stakeholders involved in designing the survey to known interested parties, containing a unique link to the survey
- Promotion via social media using accounts owned by DSIT, BIT and Nesta[9]

The 2022 promotional emails were redesigned for the 2024 wave using behavioural insights to encourage participation. Two versions of the email were tested in a randomised controlled trial (RCT) to determine which email best elicited participation. The RCT used a small sample (n = 1,992) from the individuals who completed the 2022 wave and agreed to be recontacted and ran 28th March to 21st May 2024. The data from those who completed this RCT is included in the main sample (n = 793). The best performing email was then sent out to all of the remaining channels. Reminder emails were also sent to encourage participation, up to a maximum of two emails. Data collection for the main recruitment ran from 30th July to 30th September 2024.

Due to the nature of the recruitment channels used, the sample is not representative of the whole UK R&I workforce. Workers in some types of work were more likely to be reached, especially those who have previously received UKRI funding or applied for Innovate UK funding. More details on the sample are provided in section 3 below.

2.2.3 Analysis

The analysis of the 2024 data has been conducted on the whole sample, defined as those who completed the survey at least up until the final section on data linking. 285 people dropped off at this stage; however, we still defined them as a complete response and included their data in the final sample size as they had completed all main survey questions. The sample size for each question varies due to survey logic, where some individuals were not eligible to answer the questions based on their previous answers (e.g., those who are not employed did not answer questions about their current organisation). Most questions also included answer options of 'prefer not to say' and 'don't know', which have been excluded from the analysis where stated.

[9] BIT were commissioned by DSIT to conduct this wave of the survey. BIT is owned by Nesta, a social innovation charity in the UK.

Most questions were closed questions, resulting in quantitative data. Quantitative data was analysed descriptively with no statistical testing conducted[10], with results reported for the overall sample as well as breakdowns for subgroups of specific interest to policymakers and stakeholders.[11] The full breakdown for each question is provided in the accompanying Appendix tables. Given the volume of comparisons and the wide interests of stakeholders, we prioritised reporting all observed differences rather than limiting the focus to statistically significant ones. This approach allows for a comprehensive presentation of the data and supports a broader understanding of the observed patterns.

For free text questions, the qualitative data was analysed using topic modelling, a method designed to find key themes from large volumes of free text. It is a useful way to quickly understand the main points from a lot of written responses, ensuring that the range of public opinions are accurately captured. In practice, we deployed BERTopic[12] to group similar ideas together automatically. The themes produced were reviewed and refined by an experienced researcher in R&I workforce data to ensure their accuracy and representativeness. The overview of the themes that were derived as well as example responses for each theme are presented in the main report.

Finally, we also compared the longitudinal data across the 2022 and 2024 waves for individuals who completed both surveys and agreed for their data to be linked.[13] Longitudinal comparisons were limited to those who completed both surveys due to possible differences in the sample composition on observed and unobserved characteristics. Where questions across waves were comparable, we tested whether responses were statistically significantly different in 2024 compared to 2022 using logistic regression with clustered standard errors. Statistically significant differences are reported after correcting for multiple comparisons. For full results, see Appendix table A13.

[10] No comparisons control for other characteristics that may explain some of the differences observed, meaning that part of the variance between groups could be due to factors not controlled for.

[11] Subgroups have only been reported if the subgroups were larger than 100 participants per group.

[12] Grootendorst (2022). BERTopic: Neural topic modeling with a class-based TF-IDF procedure.

[13] Consent for data linkage was explicitly obtained in both the 2022 and 2024 surveys. To be included in the longitudinal analysis, individuals had to consent at both timepoints.

3. Sample composition

In total, we recruited 15,168 individuals in this wave. Details on the sample composition are reported in Table 3.1 and Figure 3.1, with further details reported in the Appendix A1. As the survey is not limited by Standard Occupational Classification (SOC) codes, it captured a broader R&I population, meaning comparisons with R&D occupations should be interpreted with this distinction in mind. Of the total sample, 64% worked in higher education (n = 9,653), 18% worked in the private sector (n = 2,660), and 19% worked in other sectors[14] (n = 2,814).

Compared with the UK population employed in R&D occupations[15], our sample was composed of more individuals who worked in the natural and social sciences (41% vs 9%), fewer in engineering (7% vs 21%) and IT (4% vs 36%), and more women (38% vs 25%). We acknowledge that this comparison sample of R&D workers is not the same as our target sample of the wider UK R&I workforce, so should act as a guide rather than a direct comparison.

Due to the sampling methodology, a large portion of the sample had received grant funding (92%), with this being higher for people working in higher education (97%) than for people who worked in the private sector (89%). Of the full sample, 47% reported having worked in a non-UK country (39% when looking at British citizens and 80% when looking at non-British citizens).

We believe that our survey sample overrepresents those who apply for and receive grants and underrepresents those in the private sector, as described in section 2.2.1. Additionally, private-sector respondents are more likely to have applied for and received grants compared to the broader UK R&I private sector workforce. However, we do not have the available population data to weight by the proportion of the UK R&I workforce who have applied for and received grants across sectors. We also do not know how applying for UKRI grants may correlate with other observable and unobservable characteristics which may influence how individuals respond in this survey. Applying weighting based solely on an imprecise estimate of grant application status could therefore inadvertently introduce bias by making the sample less representative with respect to other characteristics. We therefore chose not to weight the 2024 data. We present all results in this report split by sector (higher education, private sector, other sectors), with the other sectors category being a composition of

[14] Other sectors comprised all the other sectors that were not higher education or private. They were grouped due to the small sample size within each individual sector (1% - 5% of the sample). The other sectors were: independent research organisations (IROs), Local or national government, National Health Service, non-profit organisation, charity or community organisation/s, other public and independent organisations, public sector research establishments (PSREs), UKRI research institutes, and 'other'.

[15] R&D occupations were defined as the following SOC10 codes from the 'research occupations' group: 2311, 2150, 2111, 2112, 2113, 2114, 2119, 3111, 3119, and 2425; and from the 'development professions' group: 3112, 3113, 3114, 3115, 3116, 2135, 2136, 2139, 2426, 2429, 2121, 2122, 2123, 2124, 2126, 2127, 2129, and 2461.

all other sectors that are not higher education and private sector (excluding 'prefer not to say' and 'don't know'). Full results for the total sample and broken down by different sectors are reported in the Appendix A2.

In total, the 2024 wave recruited 7,640 more individuals than the 2022 wave (15,168 vs 7,528). Compared to the 2022 wave,[16] the 2024 data was similar in terms of the proportion who worked in higher education (64% 2024; 66% 2022) and the private sector (18% 2024; 22% 2022), though had slightly more working in other sectors (19% 2024; 12% 2022). The 2024 sample also had a lower proportion of British citizens (67% in 2024 vs 75% in 2022). The sample composition of those who completed both the 2022 and 2024 surveys and consented to data linking remained highly similar. We saw very little difference across occupations or sectors, suggesting that people largely remained in similar professions.

[16] DSIT (2023) Insights from the UK wide survey of the 2022 Research and Innovation Workforce: Technical Annex.

Table 3.1 The sample composition compared to representative estimates[17]

Main sector	**This R&I workforce survey sample**	**R&D population (ONS, 2024)**[18]
Higher education	64%	13%
Private sector businesses	18%	71%
Other sectors	19%	17%
Occupation	**This R&I workforce survey sample**	**UK population employed in R&D occupation (NOMIS Annual Population Survey, 2023-2024)**
Natural and Social Science Professionals	41%	9%
Engineering Professionals	7%	21%
Information Technology Professionals	4%	36%
Research and Development (R&D) and Other Research Professionals	4%	6%
Higher education teaching professionals	18%	9%
Business, Research and Administrative Professionals	13%	9%
Science, Engineering and Production Technicians	1%	10%
Gender	**This R&I workforce survey sample**	**R&D population (NOMIS Annual Population Survey, 2023-2024)**
Female	38%	25%
Male	57%	74%
Nationality	**This R&I workforce survey sample**	**R&D population (ONS, 2023)**
British	81%	83%

[17] Note that percentages in the table don't sum to 100% due to rounding.

[18] In the ONS data, private sector was defined as 'Private firm or business or Ltd', higher education defined as 'University, etc'', 'other sectors' defined as: 'Public company, plc', 'Nationalised industry etc', 'Central Gov,civil service', 'Local gov or council (inc police etc)', 'University, etc', 'Health authority or NHS trust', 'Charity, voluntary org etc', 'Armed forces', 'Other kind of organisation.

Grant funded	This R&I workforce survey sample	No R&D population source
Applied for R&I grant funding	92%	-
Received R&I grant funding	85%	-
Career length	**This R&I workforce survey sample**	**No R&D population source**
0-5 years	7%	-
6-10 years	11%	-
Over 10 years	81%	-
Workplace region	**This R&I workforce survey sample**	**R&D population (ONS, 2023)**
East Midlands (England)	6%	7%
East of England	7%	10%
London	19%	16%
North East (England)	5%	3%
North West (England)	8%	10%
Northern Ireland	1%	2%
Scotland	10%	9%
South East (England)	15%	17%
South West (England)	9%	9%
Wales	3%	3%
West Midlands (England)	6%	7%
Yorkshire and The Humber	8%	6%

N = 15,168

The distribution of UK citizenship in the sample was broadly similar across sectors, though there were more non-British citizens working in higher education compared to the private sector and other sectors (see Figure 3.1).

4. Results: Type of R&D activity and outputs

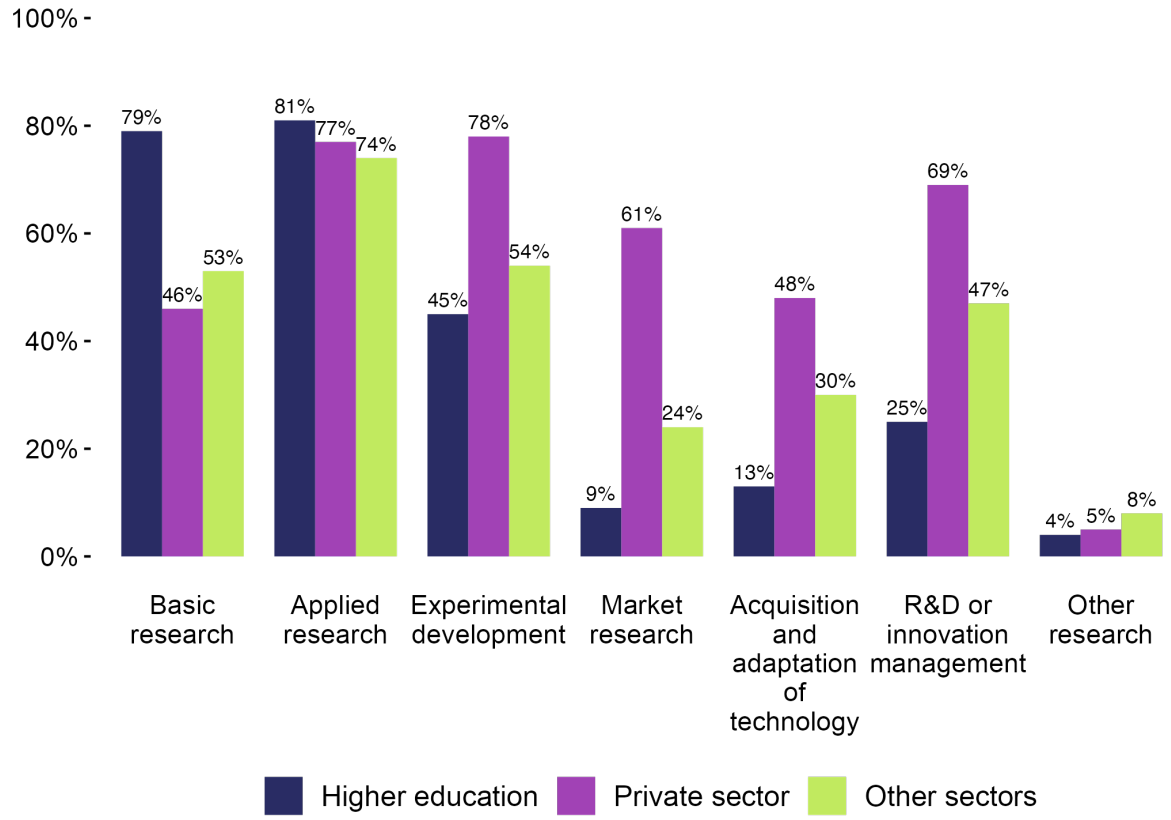
In this section, we outline the findings for survey items related to R&D activity and work outputs. Overall, we found that the most commonly reported research or innovation activities respondents had taken part in their current role were applied and basic research, with variations in the private sector, where experimental development and innovation management were more prominent. This was influenced by educational attainment.

Among the total sample (n = 15,168), the most frequently selected research or innovation activities were:

- Applied research (79%)
- Basic research (68%)
- Experimental development (52%)
- R&D or innovation management (37%)
- Acquisition and adaptation of technology (22%)
- Market research (21%)
- Other activities (5%)

This pattern of results was consistent when looking just at people working in the higher education sector, but not the private sector and other sectors (see Figure 4.1). Notably, experimental development, R&D or innovation management, market research, and acquisition and adaptation of technology were more popular activities among people working in the private sector. There was also a different pattern of research activities depending on highest educational attainment. Basic and applied research were often selected by people with doctorates (76% and 83% respectively), which was less popular among people with other postgraduate qualifications (46% and 72% respectively) or undergraduate degrees and below (52% and 68% respectively). This finding could also reflect that more of those with a doctorate worked in higher education (80% vs 25% with other postgraduate qualifications and 20% with undergraduate or below), emphasising that the interplay between sector and demographics is difficult to disentangle in a survey. See Appendix A3 for a breakdown of this question by highest educational attainment and other variables.

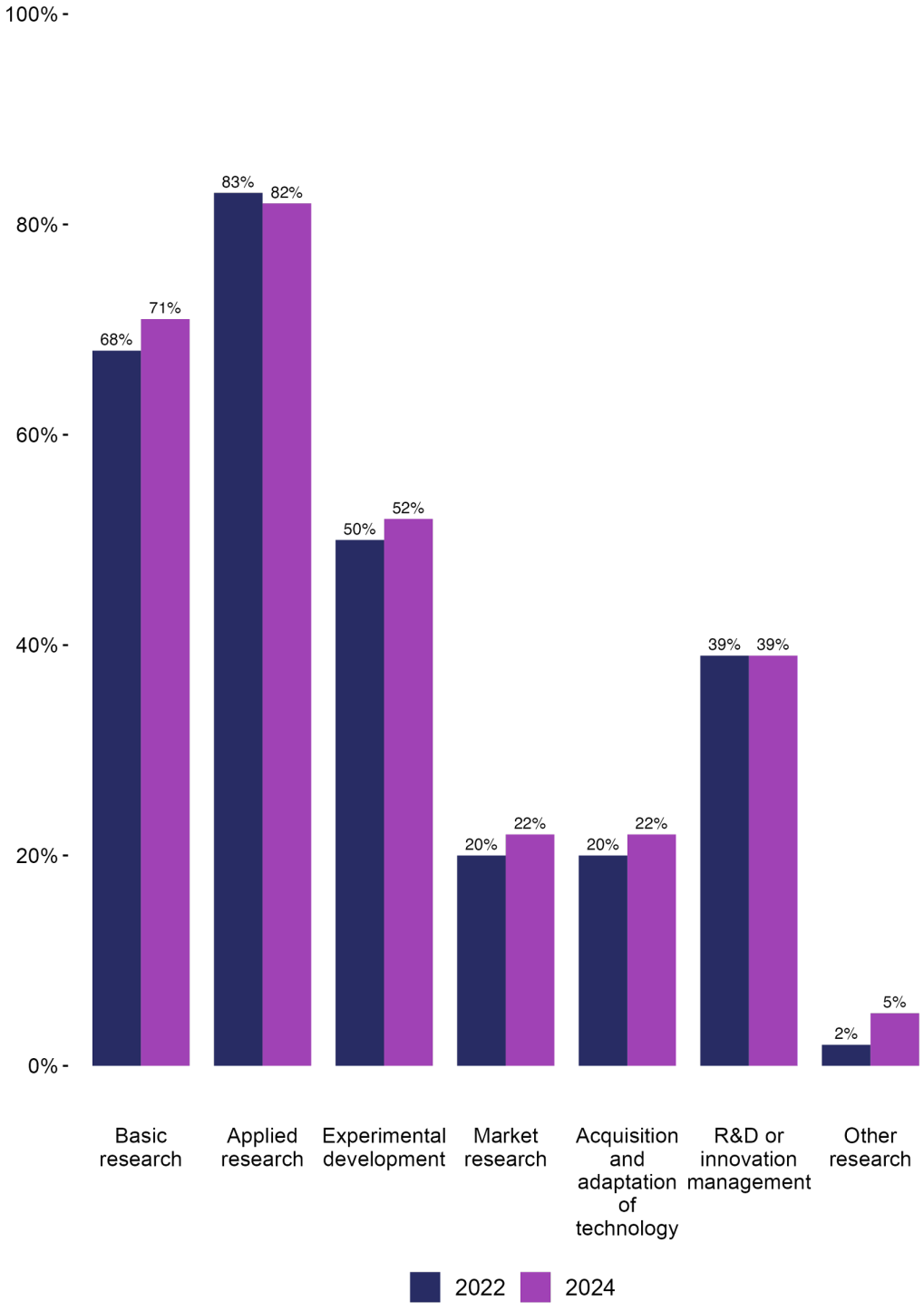
Figure 4.1 Types of activities respondents have done in their most recent or current role



All respondents were asked questions on sector and the types of work they have done in their most recent or current job role (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814; Note this excludes respondents who said "Prefer not to say" or "Don't know" to sector). Respondents were asked what research or innovation activities they have done in their job role and could select multiple responses. See Appendix A3 for a further breakdown of this question by different sectors.

The type of research activities in which the R&I workforce reported they have done remained relatively similar across the individuals who completed both the 2022 and 2024 waves (n = 1,263; Figure 4.2). However, there was a slight statistically significant increase in respondents reporting that they took part in basic research (68% in 2022 to 71% in 2024, $p < .05$) and other research (2% in 2022 to 5% in 2024, $p < .01$). This pattern of results was broadly consistent across sectors (see Appendix A3). This slight increase in basic research and other activities suggests a growing interest and modest shift towards fundamental research.

Figure 4.2. Types of activities respondents are engaged in by survey wave



A comparison of the research or innovation activities respondents reported taking part in between 2022 and 2024 (n = 1,263). Respondents were asked what research or innovation activities they have done in their job role and could select multiple responses. See the Appendix A3 for the results of the longitudinal analysis split by sector.

In the 2024 survey, respondents were asked which research or innovation activity took up the largest share of their working time during the last six months if they selected

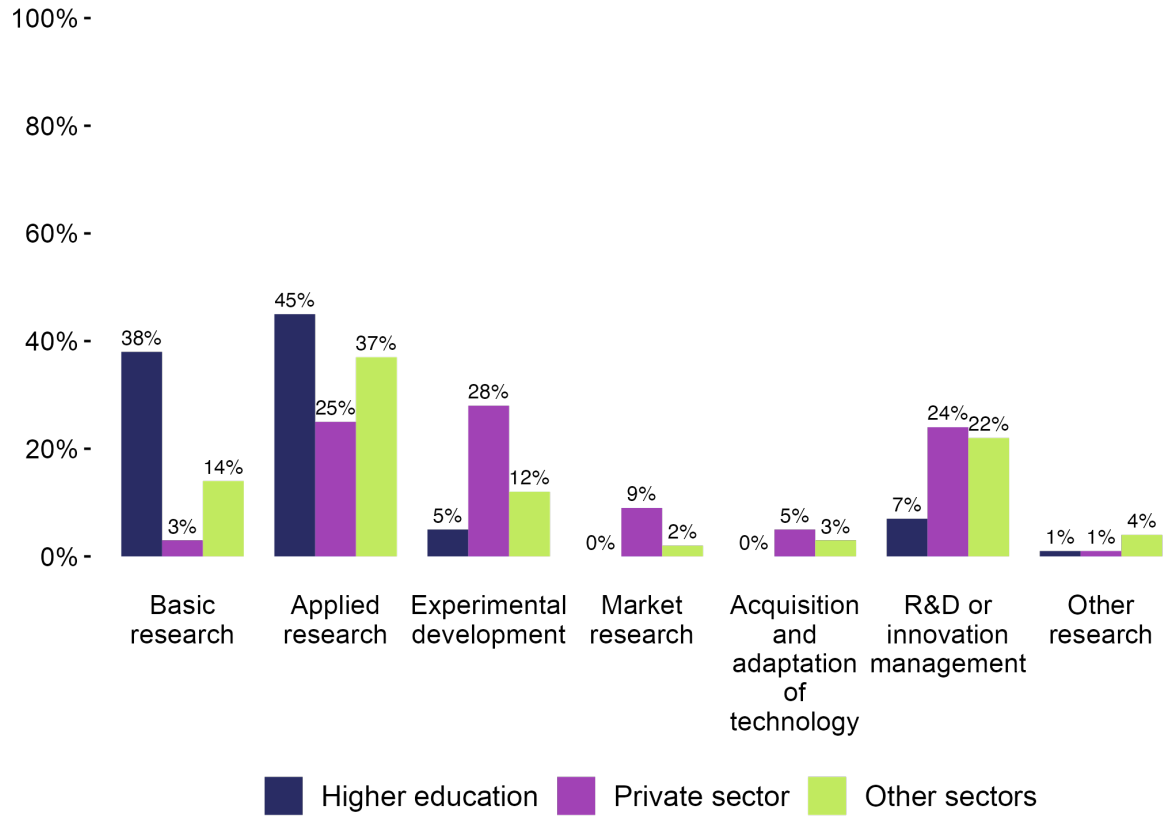
more than one activity in the previous question (n = 12,252). If respondents only selected one activity in the previous question, we considered this as the activity that took up the largest share of their working time (n = 2,832). The activities taking up the largest share of working time were:

- Applied research (40%)
- Basic research (27%)
- R&D or innovation management (13%)
- Experimental development (10%)
- Market research (2%)
- Acquisition and adaptation of technology (2%)
- Other activities (2%)

This pattern of results was consistent when looking just at people working in the higher education sector, who comprise the majority of this sample, but not the private sector and other sectors (see Figure 4.3). Notably, among respondents working in the private sector, experimental development was most often reported as taking up the largest share of working time (28%), followed closely by applied research (25%) and R&D or innovation management (24%). Only 3% of the private sector respondents reported basic research as taking up the largest share. A substantial minority of those working in other sectors also reported R&D or innovation management took up the largest share of their working time (22%).

There was also a pattern of research activities depending on high educational attainment. Basic and applied research were often reported as taking up the largest share of working time by people with doctorates (34% and 45% respectively), which were less popular among people with other postgraduate qualifications (8% and 32% respectively) or undergraduate degrees and below (10% and 25% respectively). These results are intuitive, given that most doctorates are research based and most respondents with a doctorate were working in higher education. See Appendix A3 for a breakdown of this question by highest educational attainment and other variables.

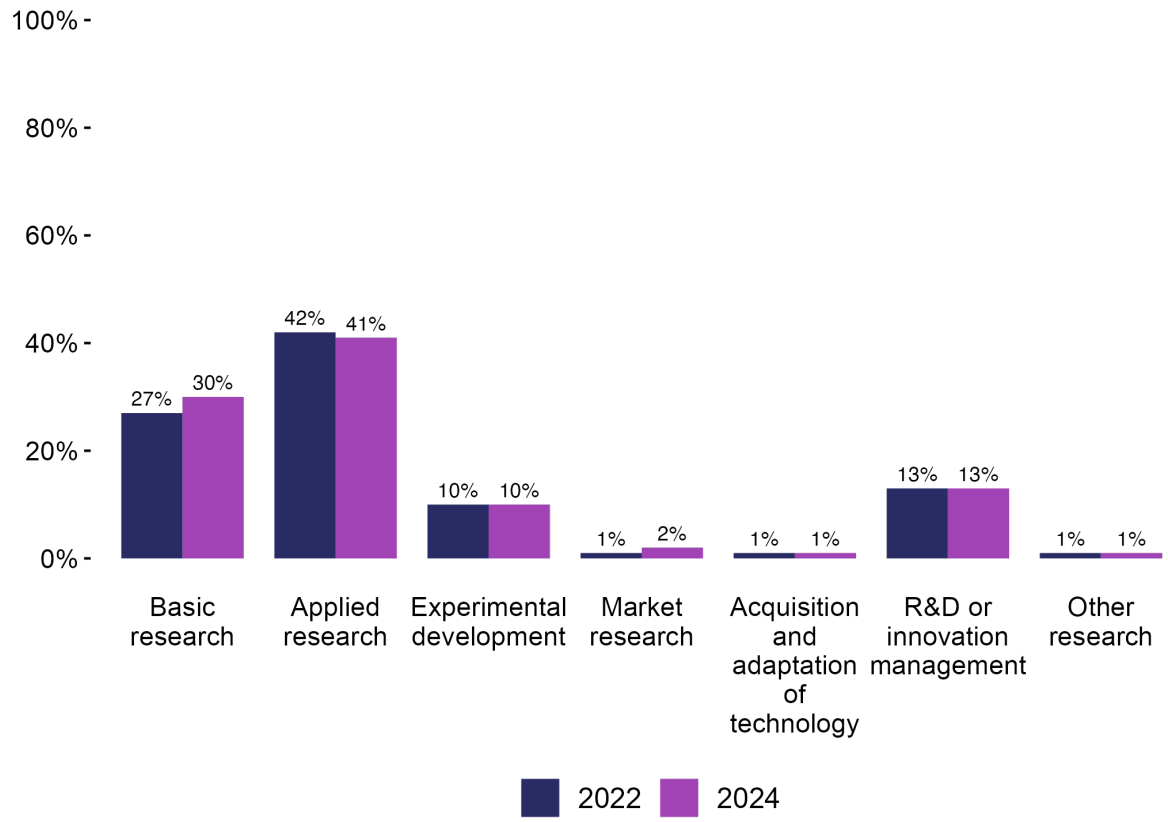
Figure 4.3 Type of research activity taking up the greatest share of working time



Results are reported as percentages of the total sample, combining the subsample who only gave a single answer to the types of research activities they were engaged in (n = 2,832) and the subsample sample who reported doing more than one of the listed research activities (n = 12,252). (Total ns for Higher education n = 7,598; Private sector n = 2,241; Other sectors n = 2,217. Note this excludes participants who said "Prefer not to say" or "Don't know" to sector). Participants were asked which activity took up the most time and could not select multiple responses. See Appendix A3 for a further breakdown of this question by different sectors.

Comparing the longitudinal data across the waves, it appears that the activities that took up the greatest share of their working time remained the same (Figure 4.4; n = 1,263; all $p > .05$), with this being broadly consistent across sectors (see Appendix A3).

Figure 4.4. Type of research activity taking up the greatest share of working time by survey wave



A comparison of the research or innovation activities that were reported as taking up the most time between 2022 and 2024 (n = 1,263). Respondents were asked which activity took up the most time and could not select multiple responses. See the Appendix A3 for the results of the longitudinal analysis split by sector.

All respondents were asked which industries or technologies they worked in (n = 15,168). The UK Science and Technology Framework[19] identified a portfolio of 5 technologies that are most critical to the UK:

- Artificial Intelligence (AI),
- Engineering Biology (Bio),
- Future Telecommunications,
- Semiconductors,
- and Quantum Economy (also referred to as Quantum Technologies).

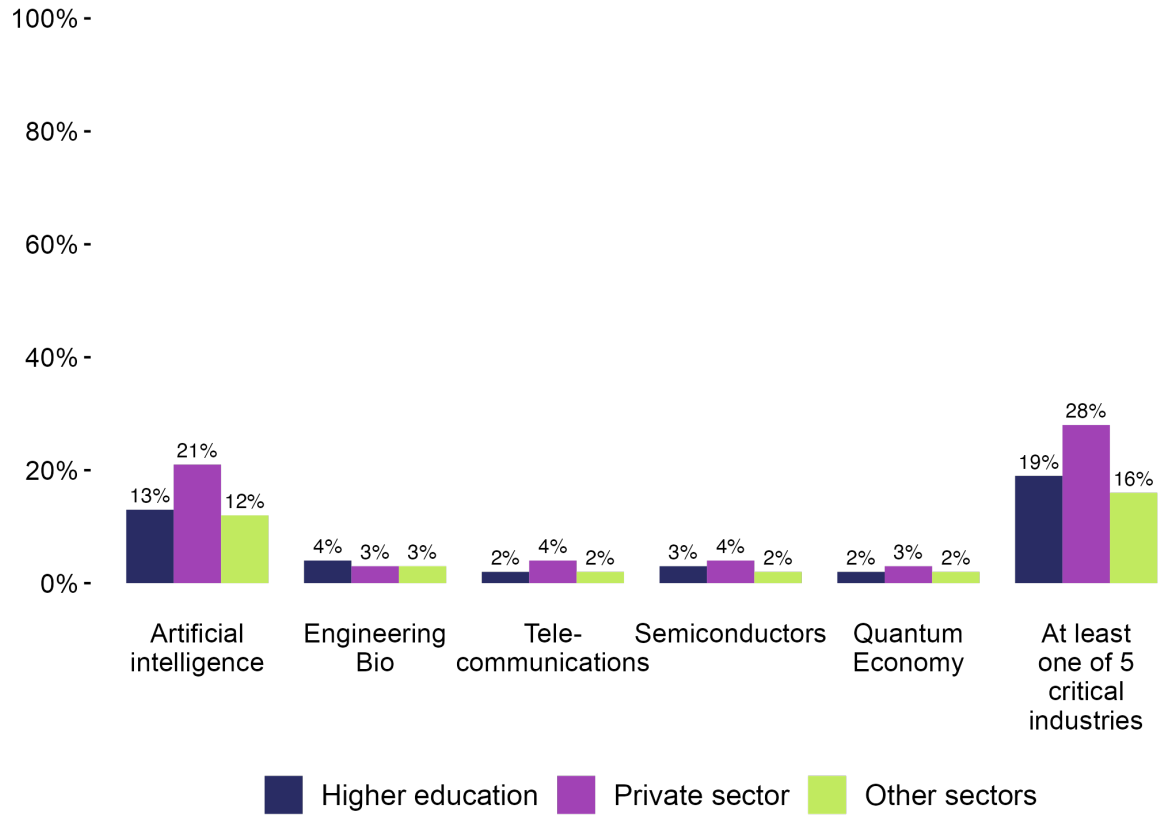
In total, 20% reported working in one of the five critical technologies. People were most likely to report working in AI across the total sample (14%) and across sectors (see Figure 4.5). AI was more popular for those working in the private sector (21%) than those working in higher education (13%). This did not appear to be dependent on highest educational attainment (see Appendix A3). These critical technologies cannot

[19] The UK Science and Technology Framework (2024).

be compared longitudinally as the 2022 survey did not ask about the critical technologies and instead referred to seven families of technology as set out in the UK innovation strategy[20] published in July 2021.

These results reflect alignment with government priorities in fostering innovation, including the plans to make the UK one of the great AI superpowers.

Figure 4.5 Whether work relates to the 5 critical technologies



All respondents were asked questions on sector and the technology or industry they worked in (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814; Note this excludes respondents who said "Prefer not to say" or "Don't know" to sector). Respondents were asked what technology or industry they worked in and could select multiple responses. See Appendix for a further breakdown of this question by different variables.

Respondents who were employed were asked what outputs their work fed into during the last 12 months (n = 15,114). When looking at this sample, the most commonly reported outputs were:

- new knowledge from research and experimentation, discussed with colleagues (87%)
- publications in academic journals (86%)

[20] https://www.gov.uk/government/publications/uk-innovation-strategy-leading-the-future-by-creating-it/uk-innovation-strategy-leading-the-future-by-creating-it-accessible-webpage

- sharing new or existing knowledge through education, training, mentoring or knowledge exchange (72%)
- data collection, datasets, databases or data models (63%)

In contrast, the least commonly reported output was artistic and creative outputs (8%). However, outputs were very dependent on the sector (see Figure 4.6). Outputs most commonly reported in the higher education sector included:

- publications in academic journals (92%)
- new knowledge from research or experimentation, discussed with colleagues (87%)
- sharing new or existing knowledge through education, training, mentoring or knowledge exchange (75%)

Outputs more commonly reported in the private sector included:

- new knowledge from research or experimentation, discussed with colleagues (65%)
- intellectual property and licensing (51%)
- prototypes of new products or processes (50%)
- commercialising research (42%)

Outputs more commonly reported in other sectors included:

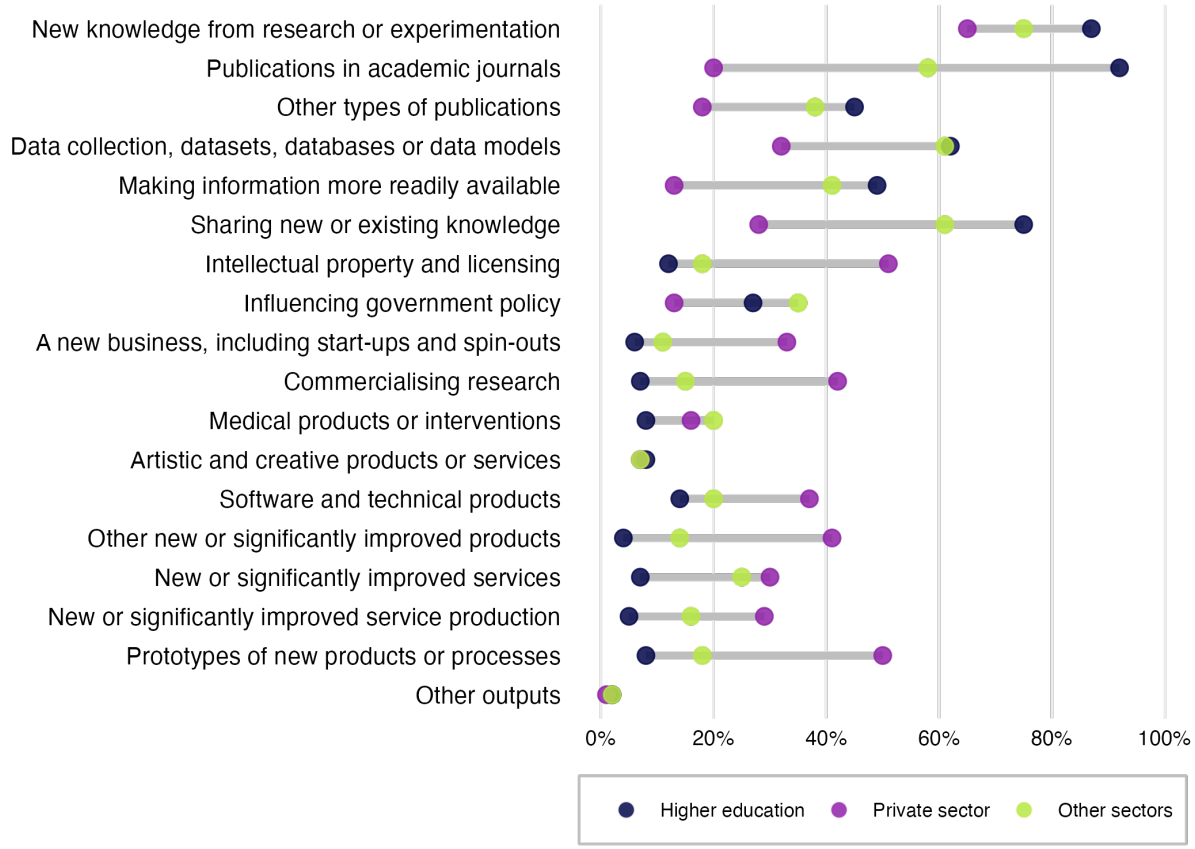
- new knowledge from research or experimentation (75%)
- data collection, datasets, databases or data models (61%)
- sharing new or existing knowledge (61%)

People with a doctorate followed a similar pattern to people working in higher education (see Appendix A3), with most reporting their work feeding into publications in academic journals (88%) and new knowledge from research or experimentation (88%). People with other postgraduate qualifications or an undergraduate degree and below were less likely to report their work feeding into publications in academic journals (37% and 30% respectively) and new knowledge from research or experimentation (67% and 64% respectively). Instead, their responses were notably higher among other outputs, including prototypes of new products or processes (29% and 33% respectively), new or significantly improved services (29% and 25% respectively), and other new or significantly improved products (25% and 28% respectively). These differences across qualification levels could reflect the differences in the sectors where individual work, given those in higher education are also more likely to have a doctorate.

Overall, the most common outputs are new knowledge from research and experimentation, discussed with colleagues as well as publications in academic journals. However, those in the private sector appear to focus more on intellectual

property and commercialisation highlighting sectoral differences in output priorities. Across all sectors, artistic and creative outputs were rarely cited.

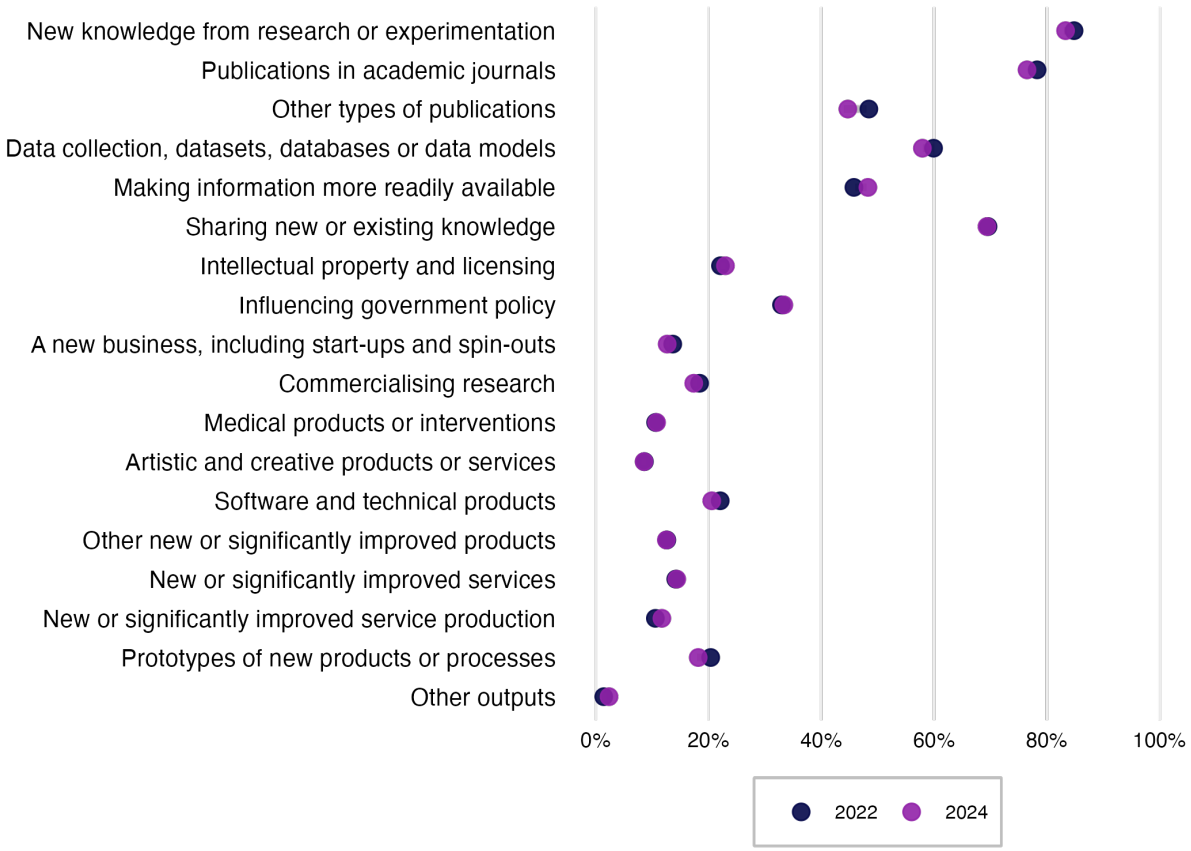
Figure 4.6 Outputs that the respondents' work has fed into in the last 12 months



All respondents were asked questions on sector but only a subset of these respondents (those who did not identify as unemployed) were asked what their outputs fed into in the last 12 months (Higher education n = 9,621; Private sector n = 2,655; Other sectors n = 2,798; Note this excludes respondents who said "Prefer not to say" or "Don't know" to sector). Respondents were asked which outputs their work fed into and could select multiple responses. See Appendix A3 for a further breakdown of this question by different sectors.

The longitudinal data from those who completed both survey waves suggests that the types of outputs that the respondents' work has fed into remained largely unchanged (Figure 4.7; n = 1,263), with the exception that there was a statistically significant decrease in the number of people contributing to other types of publications from 2022 to 2024 (48% to 44%; $p < .05$). This decrease was more substantial for those working in the private sector (25% to 19%) and other sectors (58% to 46%), compared to those working in higher education where there was only a slight decrease (52% to 50%).

Figure 4.7 Outputs that the respondents' work has fed into in the last 12 months by survey wave



A comparison of the outputs between 2022 and 2024 (n = 1,263). Respondents were asked which outputs their work fed into in the last 12 months and could select multiple responses. See the Appendix for the results of the longitudinal analysis split by sector.

5. Results: Sector mobility

This section covers respondents' experience in sectors across the R&I field, collaboration with different sectors, as well as appetite for transitioning to a different sector. Overall, a large proportion of the R&I workforce has prior experience in sectors other than their current one. Higher education remains a dominant sector, particularly for those with doctorates and longer careers, suggesting sector-specific career paths remain prominent.

In this wave, 64% currently worked in higher education, 18% in private sector businesses, and 19% in other sectors which included independent research organisations (IROs), local or national government, national health service, non-profit organisation, charity or community organisation/s, other public and independent organisations, public sector research establishments (PSREs), UKRI research institutes, and 'other'. To understand mobility between sectors, all respondents were asked what sectors they had worked in during their career in R&I (they could select multiple answers and were asked to include their current sector). Overall, 55% had previously worked in different sector(s) than those they currently work in, although a large proportion of those who currently worked in higher education had worked in higher education institutions their entire career. Higher education institutions were the most popular sector across the sample, with 78% reporting they had worked in a higher education institution such as a university. This is expected given 64% of the sample currently worked in higher education and the question asked individuals to include their current role. Higher education was followed in popularity by:

- private sector businesses (39%)
- non-profit organisation, charity or community organisation(s) (15%)
- NHS (12%)
- and UKRI research institutes (10%)

However, sector experience varied across sectors (see Figure 5.1). A substantial proportion of respondents currently working in the private sector (38%) and other sectors (54%) reported that they had worked in higher education, perhaps suggesting that starting a R&I career in higher education is relatively common. Private sector businesses were selected by the minority of those currently in higher education (24%) and other sectors (35%) but still indicates some cross-sector mobility. A full breakdown by other characteristics is provided in Appendix A4, including career length and highest educational attainment.

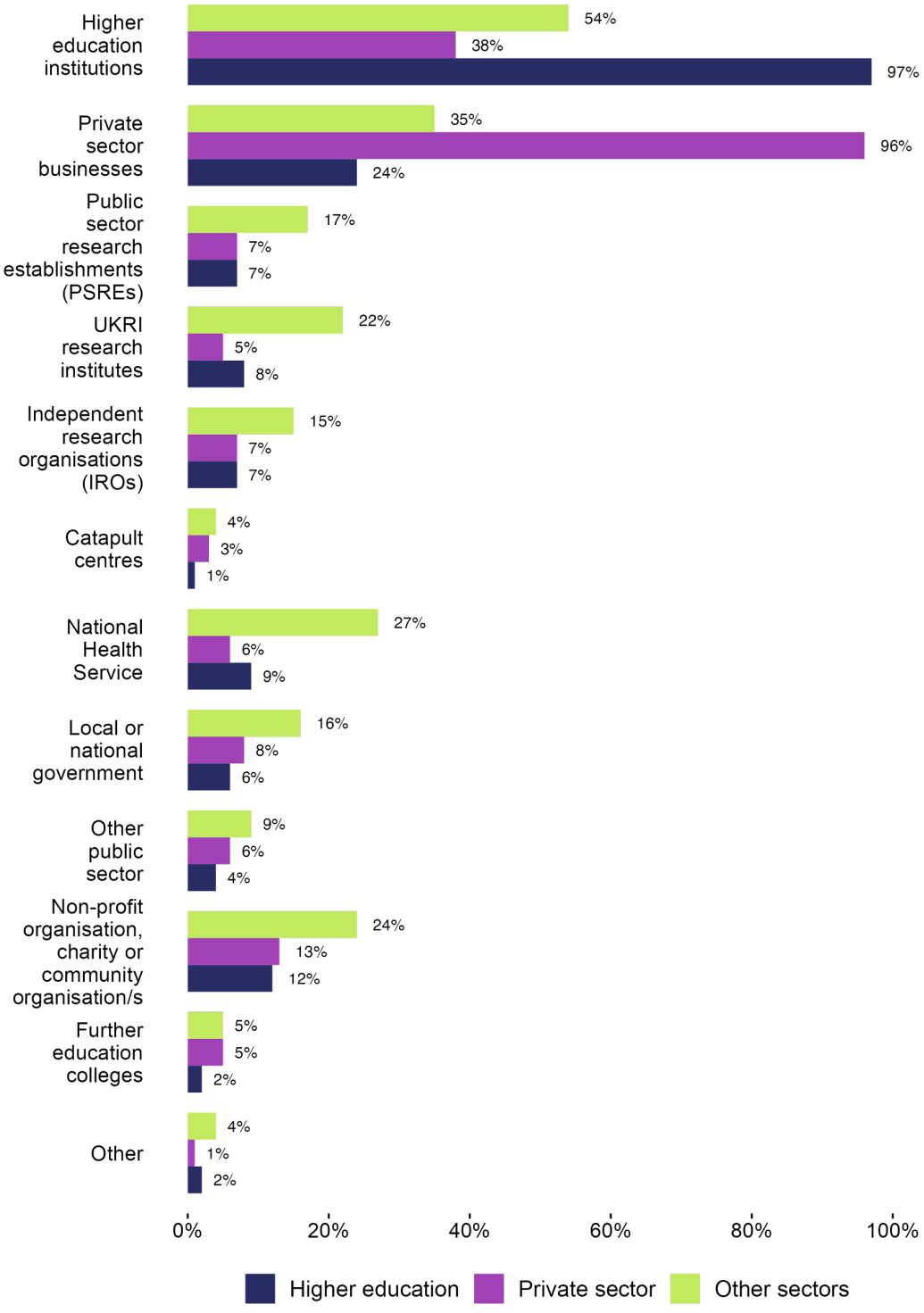
Notably, more of those with a doctorate reported working in higher education institutions (93%) compared to those with another postgraduate degree (46%) and an undergraduate degree or below (33%) whereas the proportion who reported having worked in private sector businesses was much lower for those with a doctorate (30% vs 59% other postgraduate and 66% undergraduate or below). Finally, more of those

with longer careers lengths reported having worked in higher education institutions (84% over 10 years vs 38% 0-5 years and 64% 6-10 years) and less reported having worked in private sector businesses (36% over 10 years vs 54% 0-5 years and 48% 6-10 years). As above, this could reflect the sample composition and is difficult to disentangle from the main sector respondents work in.

The longitudinal data shows that the majority of individuals remained in the same sector in 2024 as they were in 2022, though there was more mobility away from 'other sectors' (94% remained in higher education, 82% remained in the private sector, 67% remained in other sectors). Of those in higher education, 3% moved to the private sector and 3% to other sectors. Of those in the private sector, 10% moved to higher education and 8% to other sectors. Of those in other sectors in 2022, 20% moved into higher education and 14% into the private sector. See Appendix A13 for the full comparison.[21]

[21] Ns do not always sum to 100% due to rounding.

Figure 5.1 Sectors worked in over career, split by current main sector (higher education, private sector, and other sectors)



All respondents were asked questions on the previous sectors they had worked in over the course of their career and their current main sector (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814). Respondents were asked which previous sectors they had worked in and could select multiple responses. See Appendix A4 for a further breakdown of this question by different current main sectors.

Respondents were also asked what sectors they had collaborated with in their current (or most recent) role.[22] While collaboration is common across sectors, higher education respondents engage more broadly, whereas private sector collaborations are more focused on industry partners.

Overall, the most common collaborations were:

- Higher education institutions (84%)
- Private sector businesses (65%)
- Non-profit organizations (47%)
- UKRI research institutes (44%)
- Local or national government (33%)
- Public sector research establishments (28%)
- NHS (27%)

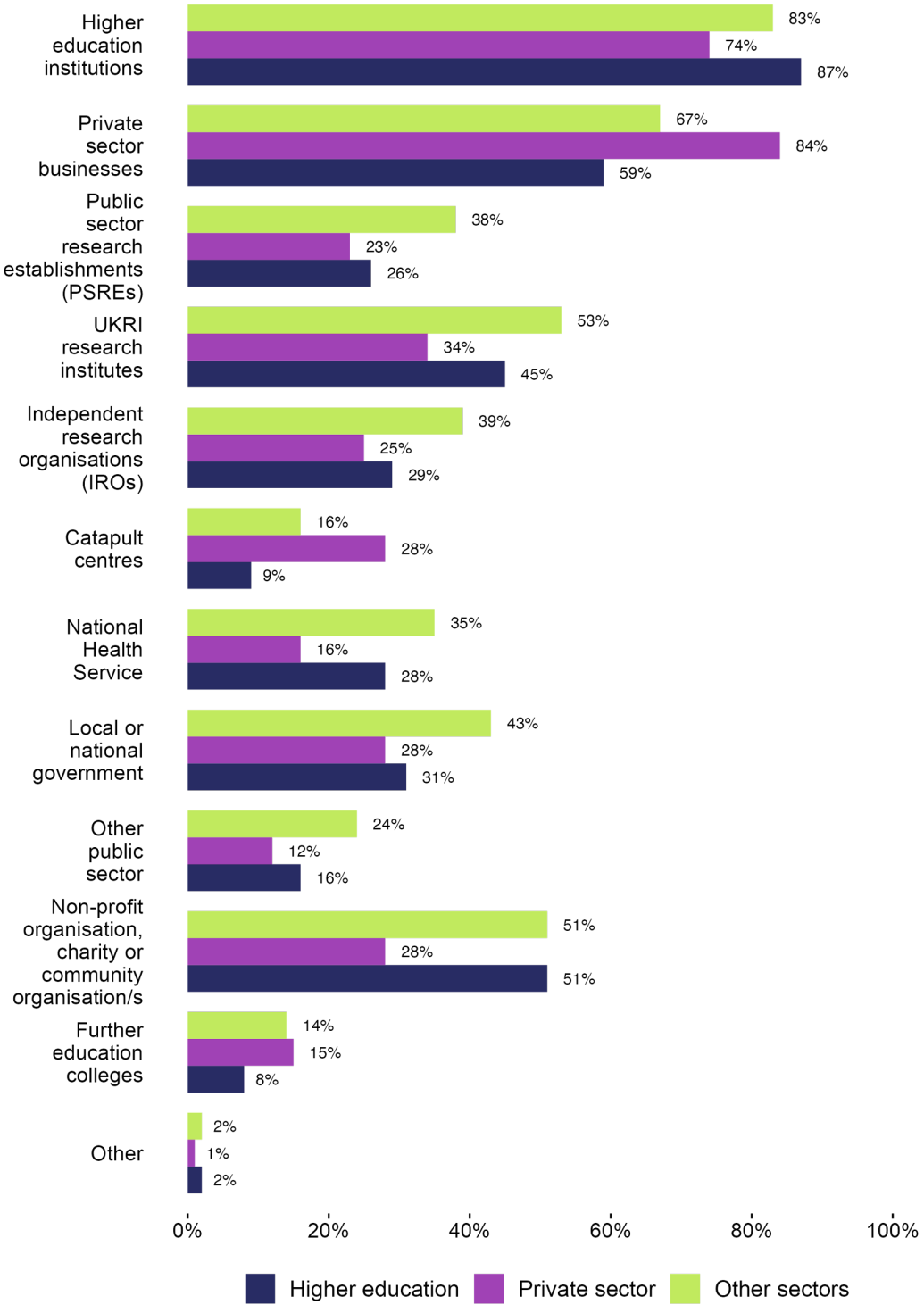
This varied by the current sector that individuals worked in, for example:

- Collaborations with private sector businesses were more common from the private sector (84% vs. 67% in other sectors and 59% in higher education)
- Collaborations with non-profit organizations were more common from higher education and other sectors (51% in both higher education and other sectors vs. 28% in the private sector)
- Collaborations with local or national government was more common in other sectors (43% vs. 28% in the private sector and 31% in higher education)

See Figure 5.2 for the full breakdown by sector and Appendix A4 for further subgroup breakdowns.

[22] This question changed between the 2022 and 2024 waves, where in 2022 the question was asked as a single choice, where participants could only select one answer. In 2024, the question was asked as a multiple choice, where participants could select multiple answers. The difference between waves is statistically significant, but this is likely due to the question design.

Figure 5.2 Sectors collaborated with in current role, split by current main sector (higher education, private sector, and other sectors)

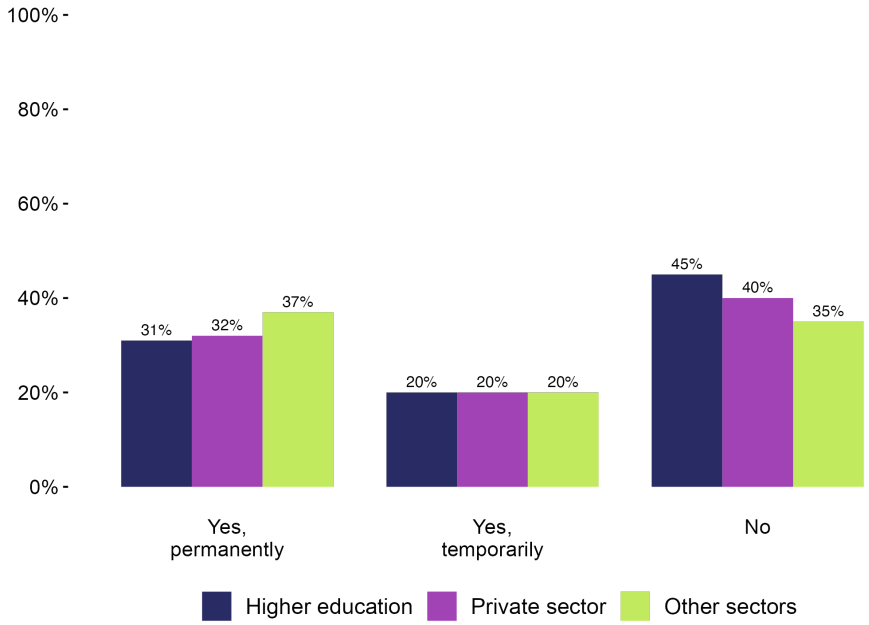


All respondents were asked questions on the sectors they had collaborated with in their current role and their current main sector (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814). Respondents were asked which sectors they had collaborated with and could select multiple responses. See Appendix A4 for a further breakdown of this question by different current main sectors.

Respondents were also asked whether, over the next five years, they would consider transitioning to work in another sector within R&I either permanently, temporarily or not at all. Overall, 47% of respondents would consider transitioning either permanently (33%) or temporarily (20%)[23], though a large minority would not consider transitioning at all (40%). Responses were similar across sectors, though more of those currently working in higher education said they would not consider transitioning (45% higher education vs 40% private sector and 35% other sectors) and more of those in other sectors would consider permanently transitioning to another sector (37% other sector vs 31% higher education and 32% private sector). Respondents' intentions to change sector cannot be compared longitudinally as the question on this was not included in the 2022 survey.

These results suggest that while those in higher education are more likely to stay within their sector, those in other sectors show greater interest in permanent transitions.

Figure 5.3 Mobility to new sector



All respondents were asked questions on whether they would transition to a new sector and their current main sector (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814). Respondents were asked whether they would consider transitioning to a new sector and could select both 'Yes, permanently' and 'Yes, temporarily'. Respondents could also select 'Don't know' or 'Prefer not to say', therefore %s do not add up to 100%. See Appendix A4 for a further breakdown of this question by different current main sectors.

If respondents said they would consider transitioning to another sector either permanently or temporarily (n = 7,097), they were asked which sectors they would consider transitioning to. The popularity of responses was relatively consistent across sectors (see Figure 5.4), though the proportion of each sector choosing each response

[23] Participants could select both 'yes, permanently' and 'yes, temporarily'.

varied. The most popular selections for those currently working in higher education were:

- the private sector (70%)
- independent research organisations (51%)
- UKRI research institutes (48%)
- public sector research establishments (41%)
- and non-profit organisations (41%)

Those working in the private sector most often chose:

- higher education institutions (51%)
- independent research organisations (43%)
- UKRI research institutes (41%)
- public sector research establishments (32%)
- non-profit organisations (31%)

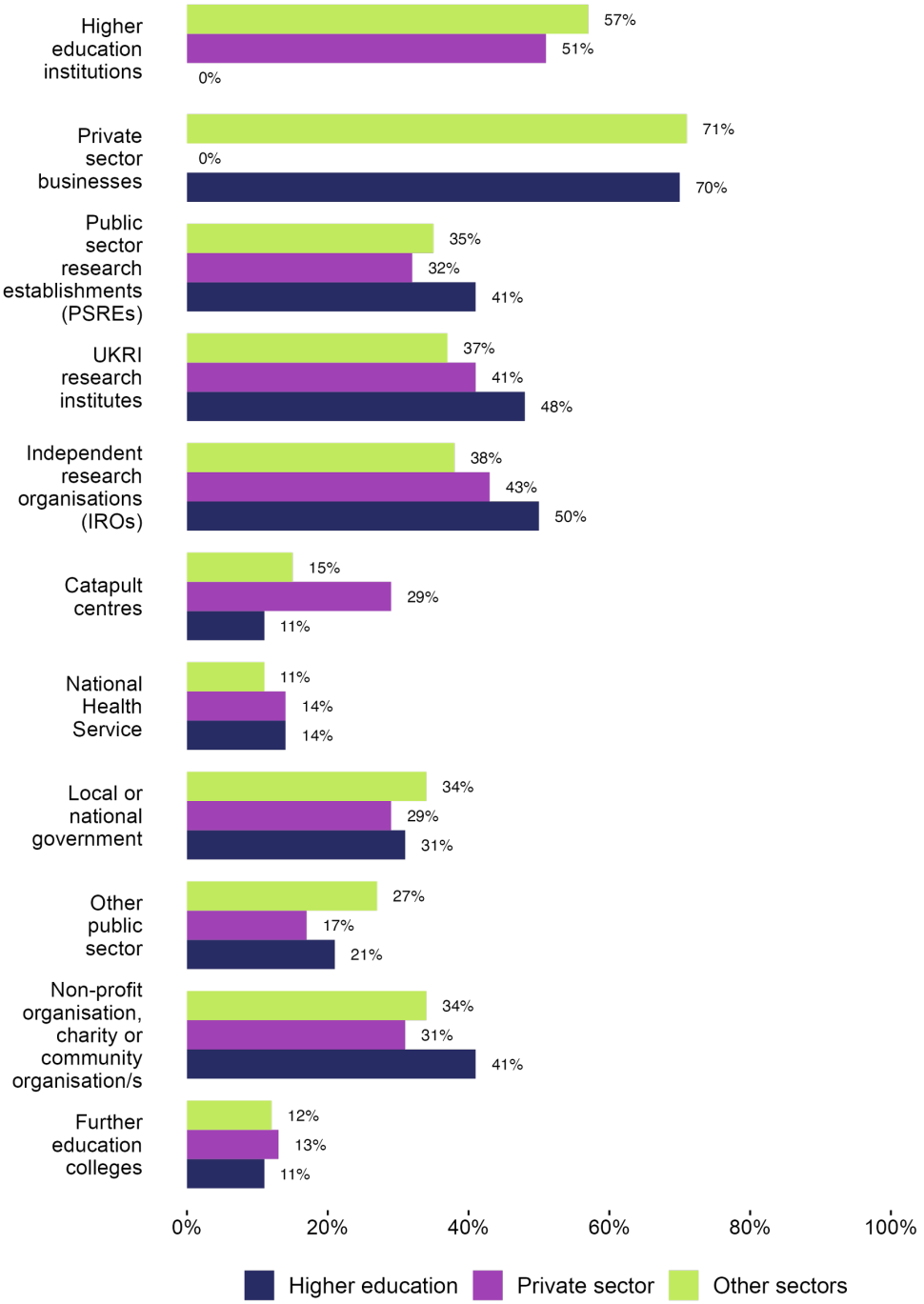
Those working in other sectors most often selected:

- the private sector (71%)
- higher education institutions (57%)
- independent research organisations (38%)
- UKRI research institutes (37%)
- public sector research establishments (35%)
- local or national government (34%)
- non-profit organisations (34%)

Patterns were relatively similar across career length, though those with a longer career more often selected the private sector (61% career over 10 years vs 46% 0-5 years and 52% 6-10 years) and less often selected higher education (18% over 10 years vs 34% 0-5 years and 27% 6-10 years), though this could reflect that those who reported longer careers are also more often currently working in higher education rather than a true reflection of preferences due to career length. This was also similar for highest qualification, where those with a doctorate more often selected the private sector (65% doctorate, vs 44% other postgraduate degree and 40% undergraduate degree or below) and less often selected higher education (14% doctorate, vs 38% other postgraduate degree and 33% undergraduate degree or below). See Appendix A4 for further subgroup breakdowns.

While preferences for sector transitions are relatively consistent across the R&I workforce, variations in the specific sectors reflect different priorities and perceptions of opportunities – with higher education respondents showing interest in the private sector and vice versa.

Figure 5.4 Sectors respondents would consider temporarily or permanently moving to, split by current main sector (higher education, private sector, and other sectors)



All respondents were asked questions on their current main sector but respondents were only asked what sector they would consider transitioning to if they said they would consider transitioning permanently or temporarily (Higher education n = 4,390; Private sector n = 1,238; Other sectors n = 1,454). Respondents were asked which sectors they would consider transitioning to and could select multiple responses, excluding their current sector. See Appendix A4 for a further breakdown of this question by different sectors.

Respondents who said they would consider transitioning to another sector either permanently (n = 7,097) or temporarily were also asked about their main reasons for considering the transition to a new main sector. Overall, the most common reasons were:

- better pay and benefits (selected by 51%)
- career progression and development opportunities (45%)
- better work life balance (41%)
- opportunities to work on a particular topic of interest (39%)

Those working in the higher education sector showed a similar pattern, with the most popular answers being:

- better pay and benefits (54%)
- career progression and development opportunities (42%)
- better work life balance (45%)
- opportunities to work on a particular topic of interest (36%)

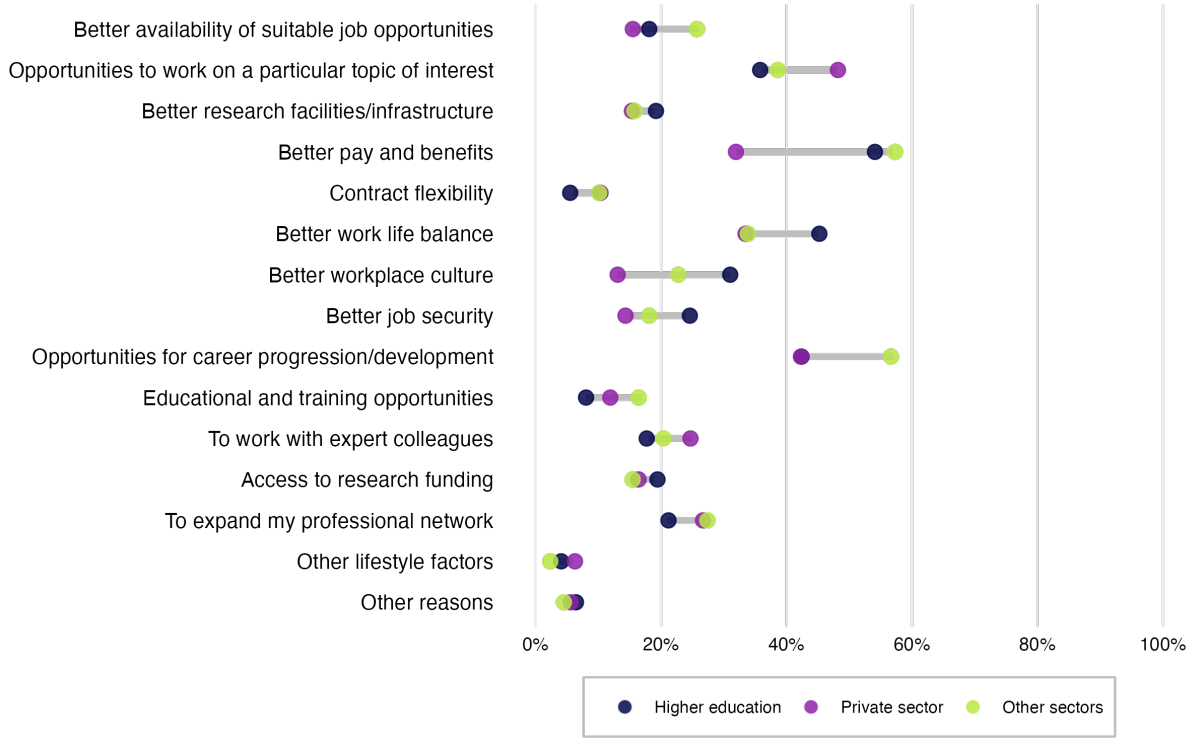
However, the most popular answers for those working in the private sector were:

- opportunities to work on a particular topic of interest (48%)
- career progression and development opportunities (42%)
- better work life balance (34%)
- better pay and benefits (32%)

Those working in other sectors showed similar patterns to the higher education sector for the most part, however more of those in other sectors chose career progression and development opportunities (57%) and better pay and benefits (57%), and fewer chose better work life balance (34%). See Figure 5.5 and Appendix A4 for full breakdown along with subgroup breakdowns for other variables of interest.

These findings reflect the complex landscape of sector mobility within the R&I workforce, where career transitions are motivated by factors such as pay, career progression and personal interests.

Figure 5.5 Reasons for moving to a new sector



All respondents were asked questions on their current main sector but respondents were only asked why they would consider transitioning to a new sector if they said they would consider transitioning permanently or temporarily(Higher education n = 4,390; Private sector n = 1,238; Other sectors n = 1,454). Respondents were asked why they would consider transitioning sectors and could select multiple responses. See Appendix A5 for a further breakdown of this question by different sectors.

Respondents who said they would not consider transitioning to a new main sector (n = 6,371) were then asked why they would not consider the transition. Overwhelmingly, the commonly selected answer was they were happy in the sector they were in (72% overall; 71% higher education, 72% private sector, 74% other sectors). Across sectors the variation in responses was small (see Figure 5.6), though notably less opportunities to work on a particular topic of interest was selected more by those working in higher education (23%) compared to those in the private sector (9%) and other sectors (15%), as was working hours in other sectors not being as flexible (14% higher education vs 3% private sector and 9% in other sectors). A full breakdown across different variables is presented in Appendix A4.

Overall, just over half the sample had an appetite for transitioning across sectors, though a large minority wanted to remain in the sector they were currently in. Most respondents who would not transition indicated satisfaction within their current sector. However, those in higher education were more likely to cite the lack of opportunities to work on topics of interest outside their sector and flexibility in working hours as reasons for staying in their current sectors compared to the private sector and other sectors.

Figure 5.6 Reasons for not moving to a new sector

All respondents were asked questions on their current main sector but only a subset of these respondents were asked why they would not consider transitioning to a new sector (Higher education n = 4,297; Private sector n = 1,066; Other sectors n = 996). Respondents were asked why they would not consider transitioning sectors and could select multiple responses. See Appendix A5 for a further breakdown of this question by different sectors.

6. Results: International mobility

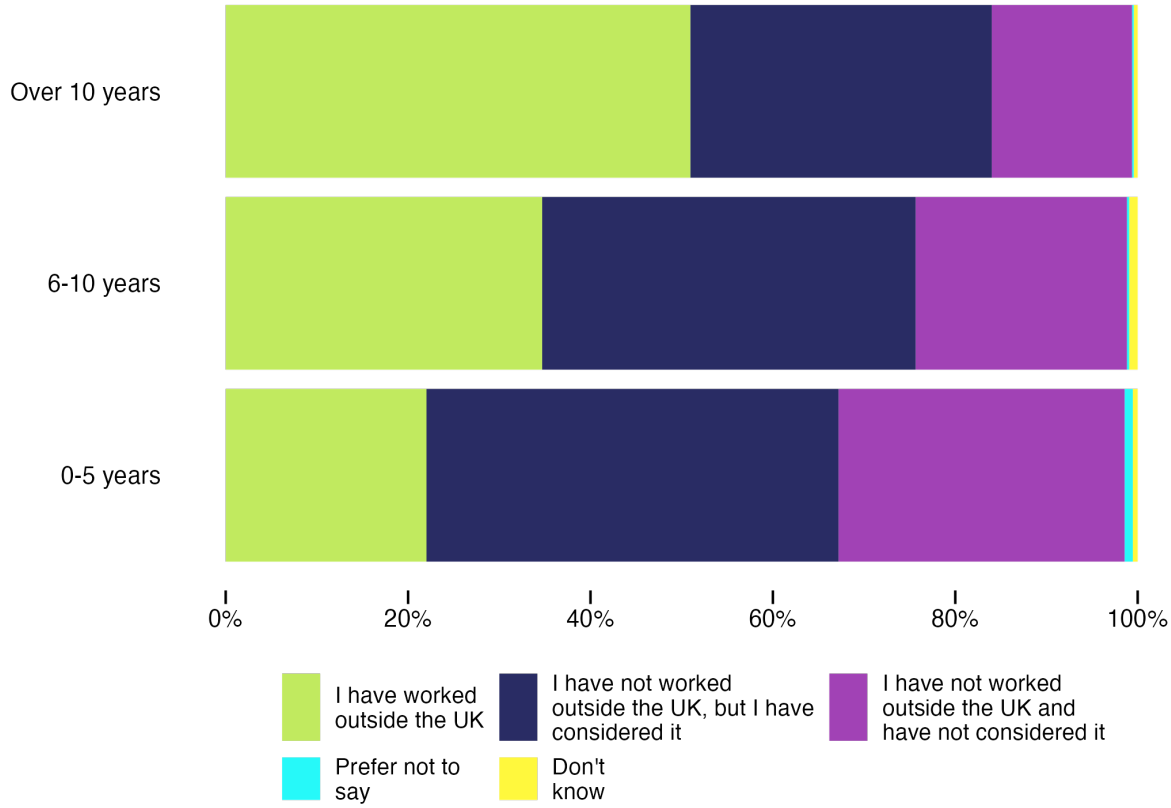
Given the international mobility of the R&I workforce, this section of the survey explored previous experience and future motivations of working in a non-UK country. Overall, findings suggest that a large proportion of respondents, particularly higher education and non-British respondents, have prior experience working outside of the UK.

First, respondents were asked if they had ever worked outside the UK or considered doing so. Overall, 47% of the sample had previously worked outside the UK.[24] This was higher for those in the higher education sector (53%) than those in the private sector (38%) or other sectors (32%). More of those who were not British had previously worked

[24] The longitudinal data showed that 49% of those who completed both waves and agreed to data linking reported having worked outside the UK in 2022, compared to 44% in 2024. The question used the exact wording across both waves. We expect this discrepancy to be explained by misreporting and misremembering.

outside the UK (80%), compared to those who were British or had a dual-citizenship (39%). Responses also increased with career length, where 51% of those who had a career over 10 years said they had worked outside of the UK, compared to 22% 0-5 years and 35% 6-10 years (see Figure 6.1). This could reflect that those with longer careers tended to work in higher education, or it could be that they have had more opportunities to work outside of the UK over their longer career length. Full breakdowns across variables can be found in Appendix A6.

Figure 6.1 Previous experience and desire to work in a non-UK country by career length



All respondents were asked questions on whether they have or would consider working outside of the UK as well as their career length (0-5 years n = 1,122; 6-10 years n = 1,709; Over 10 years n = 12,220). Respondents were asked whether they had or would consider working outside of the UK and could only select one response. The question specifically defined working outside the UK as 'working and living in a country other than the UK'.

People who said they had worked outside the UK were then asked which countries they had worked in (n = 7,105). In total, 170 countries were selected across the sample (see Appendix A7[25]). Respondents could select more than one answer. The ten most common non-UK countries people said they had worked in were:

[25] The Appendix contains the number of responses from 106 countries. Any country with less than 5 responses has been excluded from the Appendix tables to keep respondents unidentifiable

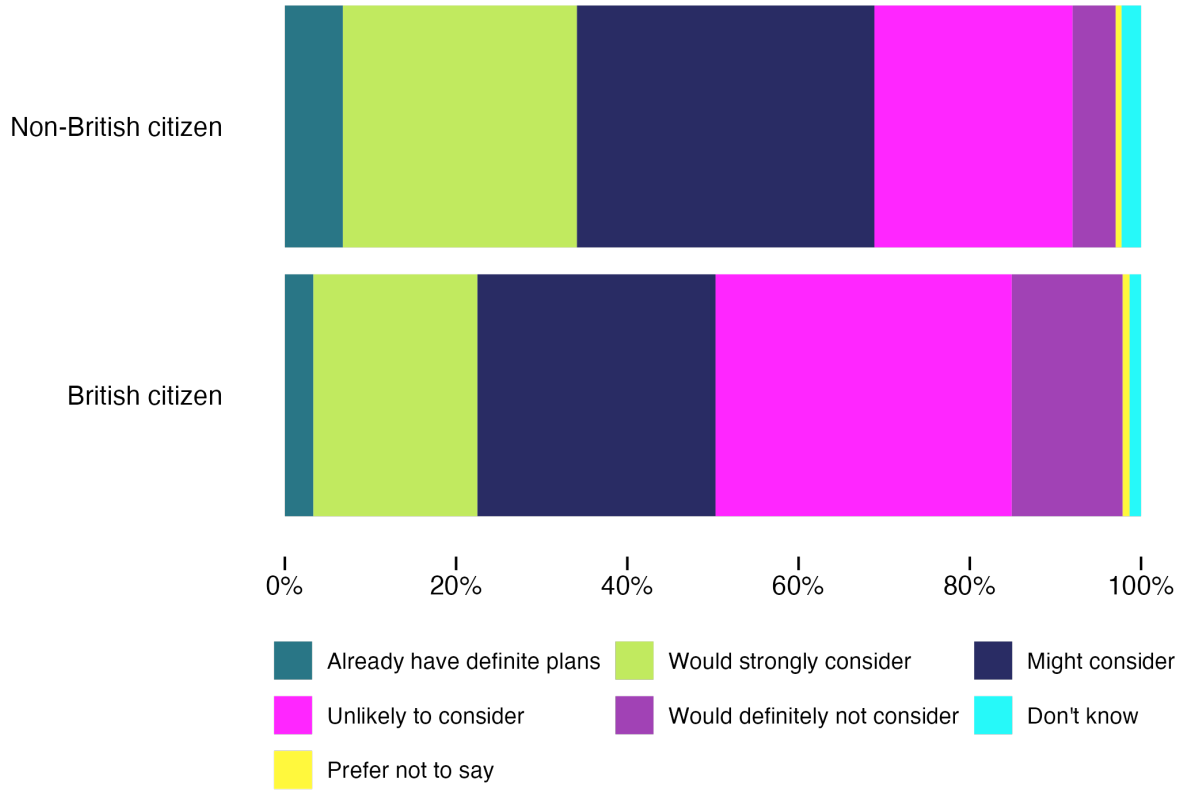
- United States (36%)
- Germany (17%)
- France (11%)
- Australia (8%)
- Canada (7%)
- Netherlands (6%)
- Italy (6%)
- Switzerland (6%)
- Spain (4%)
- Japan (3%)

The United States, Germany and France emerged as the top countries where respondents had worked internationally, suggesting that these countries were key destinations for R&I professionals. While preferences for specific countries varied, the US led by a wide margin, highlighting its importance in the global R&I landscape.

All respondents were also asked the extent to which they would consider working in R&I outside the UK within the next five years. 25% of respondents had definite plans or would strongly consider working outside the UK. As shown in Figure 6.2, this was higher for non-British citizens, where 34% had definite plans or would strongly consider it compared to 22% of British citizens. Interestingly, career length did not show significant variation in this context (see Figure 6.3), indicating that motivations for future mobility may not be tied to experience alone. See Appendix A5 for further breakdowns.

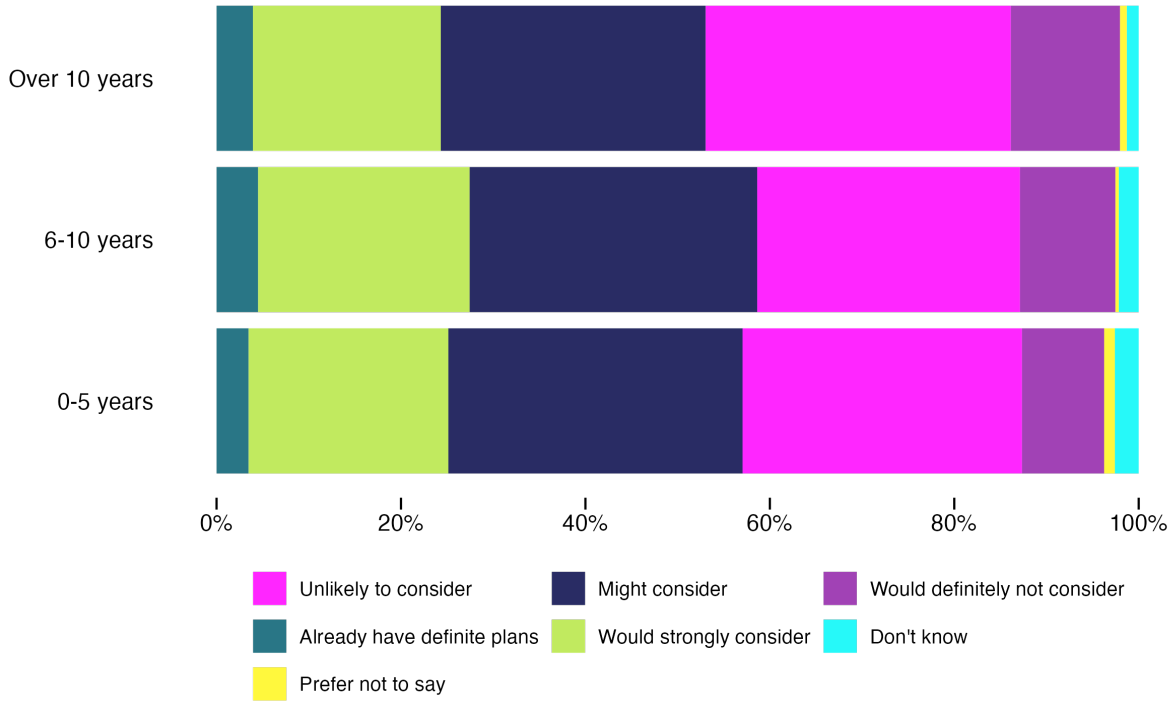
Longitudinal analysis showed the number of people who said they would strongly consider or already have definite plans to work outside the UK in the next five years statistically significantly decreased from 2022 to 2024 (26% to 22%; n = 1,263; $p < .01$). This decrease was largely driven by people working in higher education (29% to 24%; n = 851) and other sectors (16% to 12%; n = 185), and not people working in the private sector who stayed constant at 24% (n = 226).

Figure 6.2 Motivation to work in a non-UK country in the next 5 years by UK citizenship



All respondents were asked questions on their intentions to work outside of the UK and citizenship (British citizen n = 12,282; Non-British citizen n = 2,803). British citizenship includes both single and dual citizenship. Respondents were asked whether they would consider working outside of the UK in the next five years and could only select one response.

Figure 6.3 Motivation to work in a non-UK country in the next 5 years by career length



All respondents were asked questions on their intentions to work outside of the UK as well as their career length (0-5 years n = 1,122; 6-10 years n = 1,709; Over 10 years n = 12,220). Respondents were asked whether they would consider working outside of the UK in the next five years and could only select one response.

People who said they would strongly consider or already had definite plans to work outside of the UK in the next 5 years were then asked which countries they would consider working in (n = 3,747). In total, 123 countries were selected across the sample (see Appendix A8[26]). Respondents could select more than one answer. The ten most common non-UK countries people said they would work in were:

- United States (34%)
- Germany (23%)
- Australia (16%)
- Canada (15%)
- France (13%)
- Switzerland (12%)
- Netherlands (11%)
- Spain (8%)
- Sweden (6%)
- Italy (6%)

[26] The Appendix contains 60 countries, as countries with less than 5 selections were excluded from the table to keep respondents unidentifiable.

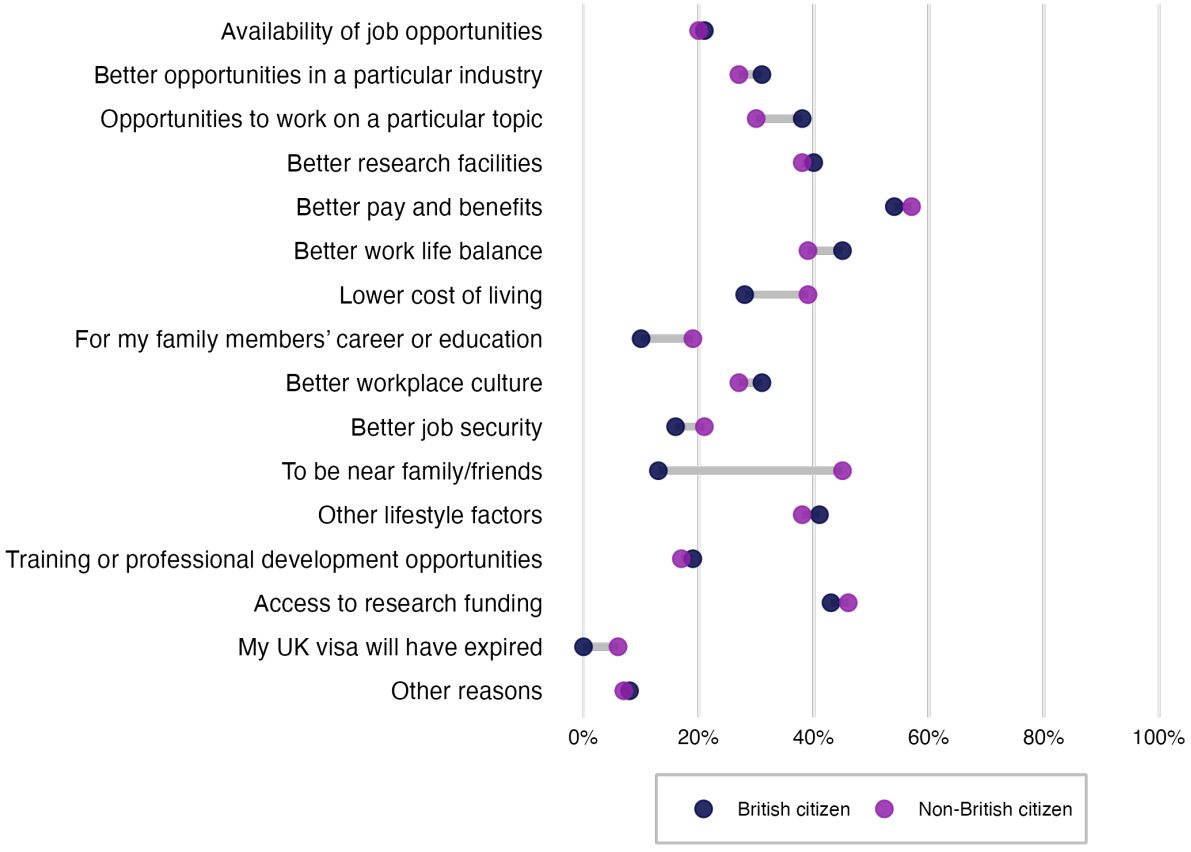
The United States, Germany, and Australia were the most common choices among respondents considering international work.

People who said they had definite plans or would strongly consider or might consider working outside the UK in the next 5 years (n = 8,166) were then asked their main reasons for doing so. The most common reasons selected by the overall sample were:

- better pay and benefits (55%)
- better work life balance (44%)
- access to research funding (44%)
- other lifestyle factors (41%)
- better research facilities (40%)
- opportunities to work on a particular topic of interest (36%)

Responses were largely similar across citizenship, but more non-British citizens selected to be near family and friends (45% non-British vs 13% British), lower cost of living (39% vs 28%), and for a family members' career or education (19% vs 10%). Those with a shorter career length more frequently selected other lifestyle factors (50% 0-5 years vs 43% 6-10 years and 39% over 10 years) and less frequently selected access to research funding (24% 0-5 years vs 37% 6-10 years and 47% over 10 years). See Appendix A6 for a full breakdown.

Figure 6.4 Reasons to consider working outside of the UK in the next 5 years



All respondents were asked a question on citizenship but only a subset of these respondents were asked why they would consider working outside of the UK (British citizen n = 6,178; Non-British citizen n = 1,930). British citizenship includes both single and dual citizenship. Respondents were asked why they would consider working outside of the UK in the next five years and could select multiple responses.

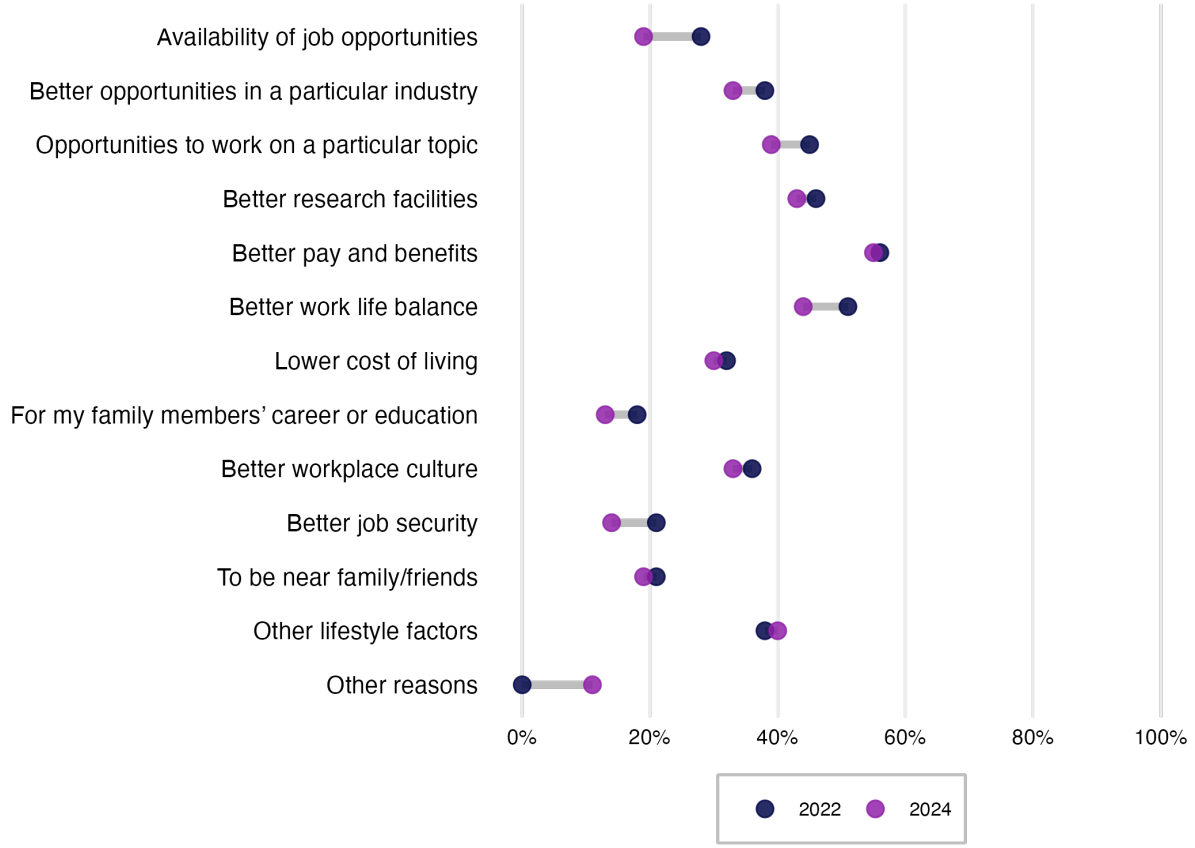
Longitudinal analyses on the reasons to consider working outside of the UK in the next 5 years indicated people were generally less likely to select the provided response options in the 2024 wave compared to the 2022 wave (Figure 6.5, n = 543). These differences were statistically significant for:

- availability of job opportunities (28% to 19%; $p < .01$)
- opportunities to work on a particular topic (45% to 39%; $p < .05$)
- better work life balance (51% to 44%; $p < .01$)
- for family members' career or education (18% to 13%; $p < .05$)
- better job security (21% to 14%; $p < .01$)

This may be partly because respondents were statistically significantly more likely to select 'other reasons' in 2024 compared to 2022 (0% to 11%; $p < .01$). However, it may also be due to three new items being added to the 2024 wave survey that were not included in the 2022 wave (training or professional development opportunities, access to research funding, and my UK visa will have expired), which were selected by respondents instead. Sample sizes were too small to robustly explore reasons longitudinally split by sector.

In summary, the longitudinal data suggests a decline in the factors motivating individuals to work abroad. However, this change could be partly due to the introduction of new survey options, which respondents may have selected instead.

Figure 6.5. Reasons to consider working outside of the UK in the next 5 years by survey wave



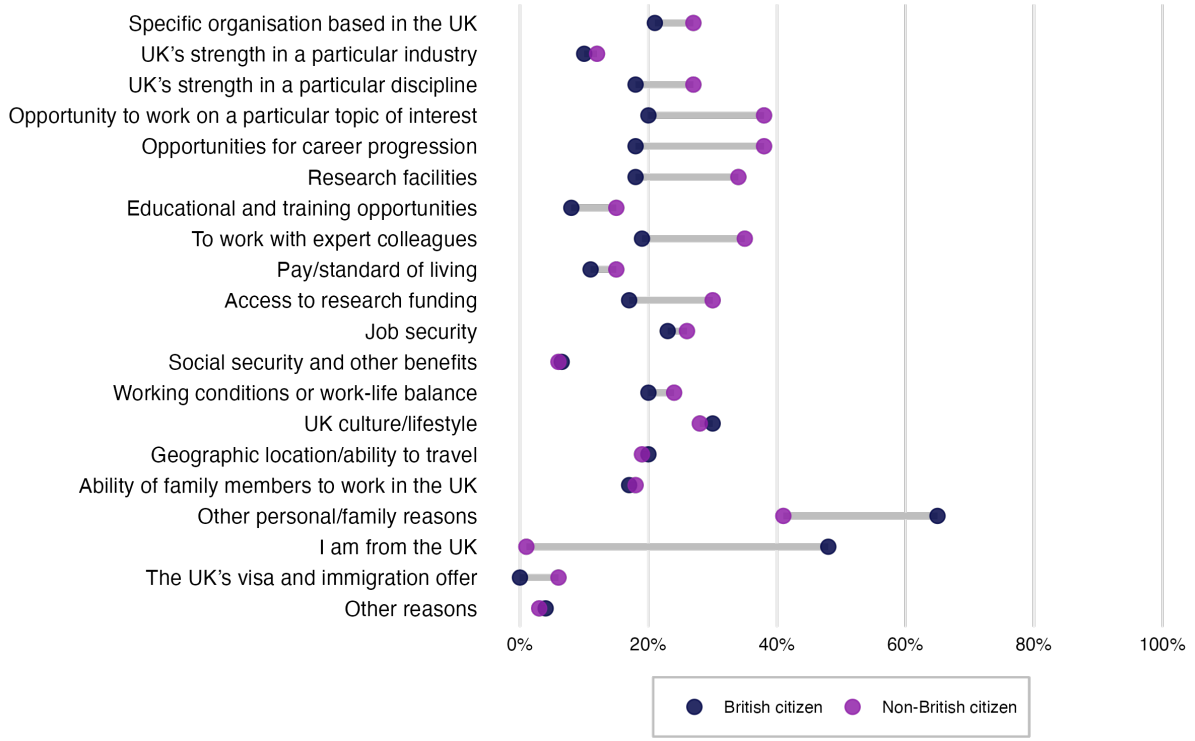
A comparison of the reasons for why people would consider working outside of the UK between 2022 and 2024 (n = 543). Respondents were asked why they would consider working outside of the UK in the next five years and could select multiple responses.

Respondents were then asked what had influenced their decision to stay in the UK so far. The most common responses chosen by the whole sample for the 2024 wave were:

- personal or family reasons (60%)
- being from the UK and not having a good enough reason to move (39%)
- UK culture/lifestyle (30%)
- job security (24%)

This varied across citizenship, most notably for the proportion selecting they are from the UK (48% British vs 1% non-British) and for personal/family reasons (65% British vs 41% non-British) (see Figure 6.6). More of those earlier in their career selected educational and training opportunities (17% 0-5 years, 14% 6-10 years, 8% over 10 years). See Appendix A6 for a full breakdown.

Figure 6.6 Reasons for staying in the UK



All respondents were asked a question on their citizenship (British citizen n = 12,282; Non-British citizen n = 2,803). British citizenship includes both single and dual citizenship. Respondents were then asked their reasons for staying inside the UK and could select multiple responses.

Longitudinal analyses on reasons for staying in the UK (n = 1,258) is shown in Figure 6.7. The results indicated people were statistically significantly less likely in the 2024 wave, compared to the 2022 wave, to report their reason for staying in the UK as:

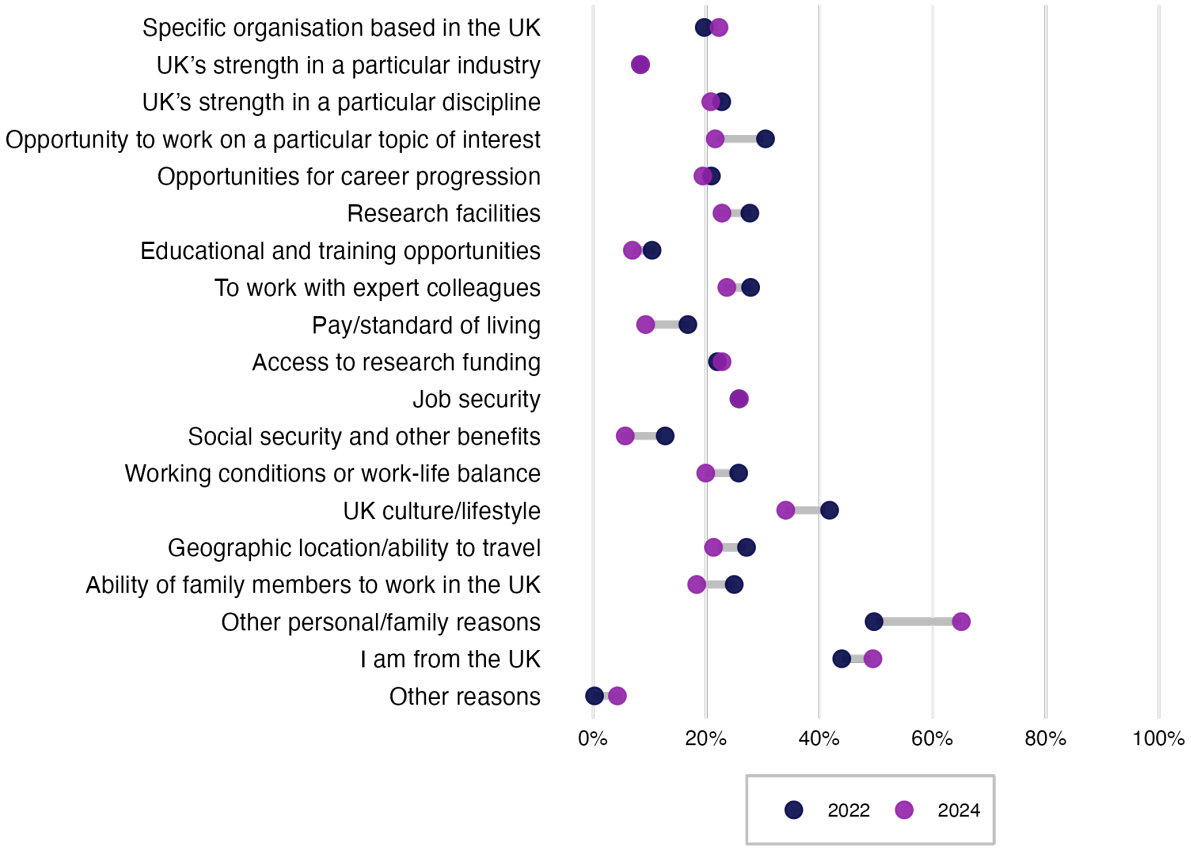
- the opportunity to work on a particular topic of interest (30% to 22%; $p < .01$)
- research facilities (29% to 22%; $p < .01$)
- educational and training opportunities (11% to 7%; $p < .01$)
- to work with expert colleagues (28% to 23%; $p < .01$)
- pay/standard of living (17% to 10%; $p < .01$)
- social security and other benefits (12% to 5%; $p < .01$)
- working conditions or work life balance (25% to 20%; $p < .01$)
- UK culture/lifestyle (41% to 34%; $p < .01$)
- geographic location/ability to travel (27% to 22%; $p < .01$)
- ability of family members to work in the UK (25% to 19%; $p < .01$)

This may be partly because respondents were statistically significantly more likely in 2024, compared to 2022, to select other personal/family reasons (50% to 65%; $p < .01$), I am from the UK (44% to 49%; $p < .01$), and other reasons (0% to 5%; $p < .01$). However, it may also be due to a new item being added to the 2024 wave survey that was not included in the 2022 wave (the UK's visa and immigration offer), which could have

been selected by respondents instead. This pattern of longitudinal results was broadly similar across sectors (see Appendix A13).

This shift from professional to personal motivations for staying in the UK may indicate a broader shift in values, where individuals place greater emphasis on personal considerations over career-driven factors.

Figure 6.7 Reasons for staying in the UK by survey wave



A comparison of the reasons for staying in the UK between 2022 and 2024 (n = 1,258). Respondents were asked why they wanted to stay working in the UK and could select multiple responses. See the Appendix for the results of the longitudinal analysis split by sector.

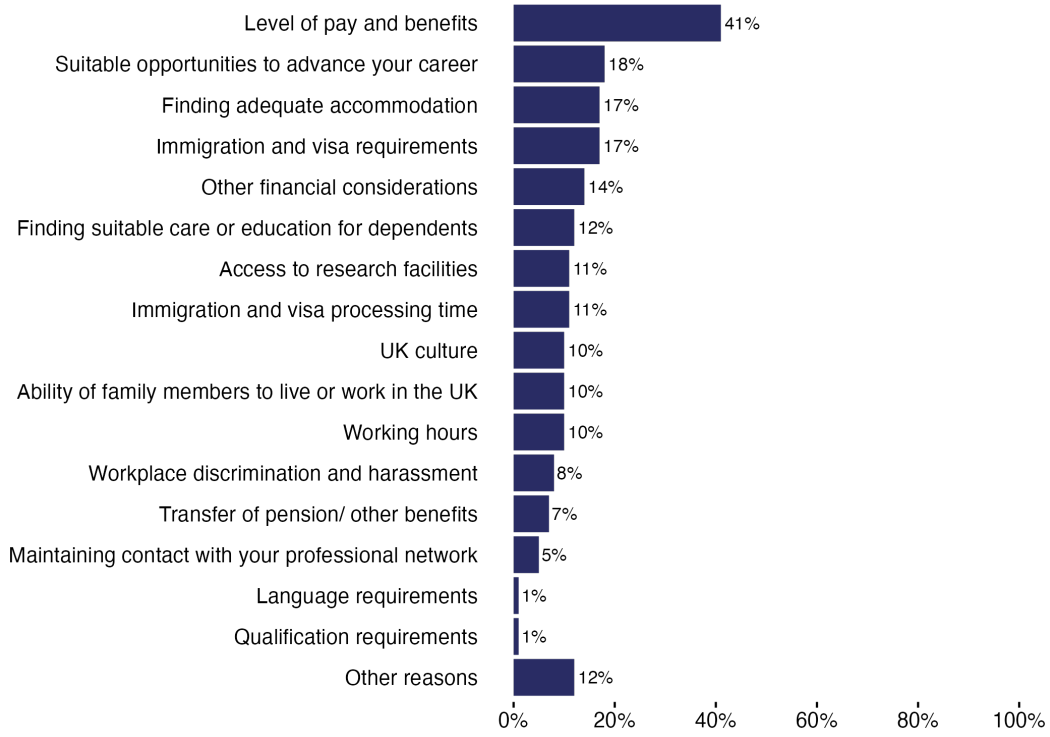
Non-British citizens (n = 5,050, including those with dual citizenship) were then asked whether anything had made it more difficult for them to work in the UK. As shown in Figure 6.8, the most frequently selected responses were:

- level of pay and benefits was selected most frequently (41% of respondents selected this)
- suitable opportunities to advance their career (18%)
- finding adequate accommodation (17%)
- immigration and visa requirements (17%)

'Levels of pay and benefits' was selected less frequently when the individual worked in the private sector (32%) compared to higher education (42%) and other sectors

(45%). 'Immigration and visa requirements' was selected more frequently by individuals earlier in their career (24% 0-5 years, 22% 6-10 years, 16% more than 10 years), as was finding adequate accommodation (30% 0-5 years, 28% 6-10 years, 15% more than 10 years). A full breakdown of the results can be found in Appendix A6.

Figure 6.8 Barriers to working in the UK



Respondents were only asked this question if they did not have single British citizenship (n = 5,050). Respondents were asked what has made it more difficult for them to work in the UK and could select up to five responses.

Longitudinal analyses on barriers (Figure 6.9, n = 322) indicated people were statistically significantly less likely in 2024, compared to 2022, to identify barriers including:

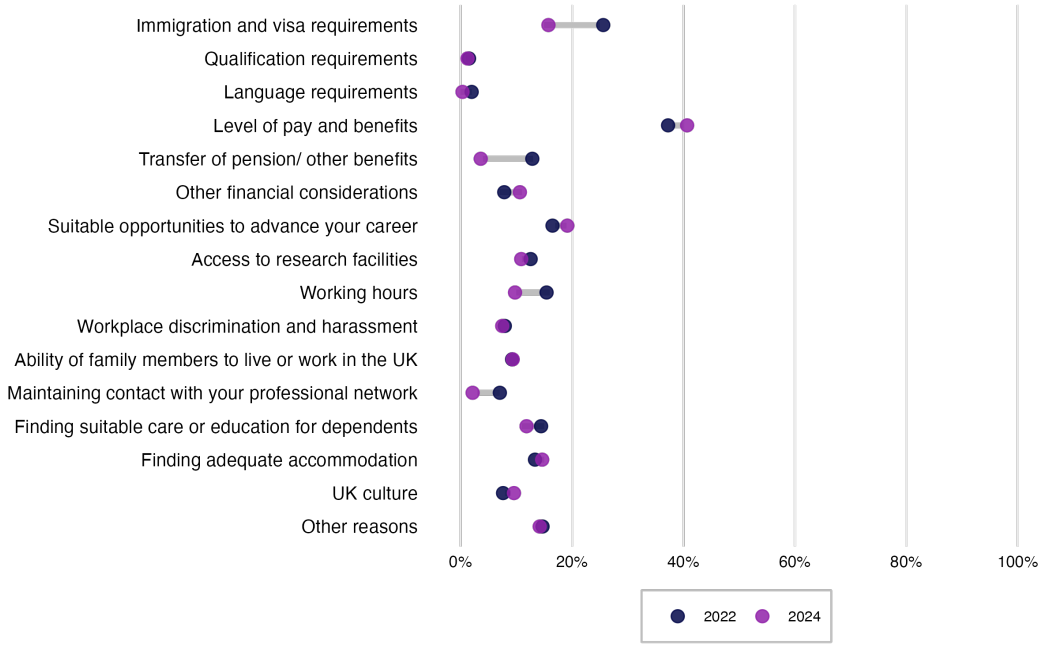
- immigration and visa requirements (25% to 15%; $p < .01$)
- language requirements (2% to 0%; $p < .01$)
- transfer of pension/other benefits (13% to 4%; $p < .01$)
- working hours (16% to 10%; $p < .01$)

There were no other statistically significant differences between survey waves on barriers; however, the 2024 wave included a new item that was not included in the 2022 wave (immigration and visa processing time), which may have been selected by respondents instead. Sample sizes were too small to robustly explore reasons longitudinally split by sector.

In summary, the reduction in reported barriers suggest there could have been some improvements in addressing challenges faced by non-British citizens over the last two

years. However, other factors such as respondents having been in the UK for an extra two years since the first survey and the inclusion of immigration processing time as a new barrier in this survey, may have had an effect on the reported barriers.

Figure 6.9 Barriers to working in the UK by survey wave



A comparison of the barriers to working in the UK between 2022 and 2024 for those who did not have British citizenship (n = 332). Respondents were asked what made it more difficult for them to work in the UK and could select up to five responses.

7. Results: Grants

This section of the survey focused on the types of grants applied for and received, as well as suggestions on what the government could support them better in their research and innovation career. Overall, the findings from this survey wave provide consistent trends maintaining sectoral funding preferences and evolving recommendations. Grant applications[27] are still integral to this R&I workforce sample, with sector-specific trends in funding preferences. Respondents working in higher education prioritise UKRI and charity funding, reflecting their academic focus, while respondents in the private sector lean towards UKRI and government-backed schemes, indicating different funding needs and strategies for navigating the funding ecosystem.

Of the full sample (n = 15,168), 92% said that they, or a team they were working in, applied for any grant funding for research and innovation in their career. This high number is likely to reflect our sampling strategy, where we used mailing lists composed from UKRI grant recipients and Innovate UK grant funding applicants (see section 2.2.1). A greater percentage of individuals working in higher education reported that they had applied for any grant funding (97%) compared to people who worked in the private sector (89%) and other sectors (80%). Respondents who said they had applied for grant funding were asked whether they had applied for specific grants (Figure 7.1).

The most commonly applied-for grants across the respondents' careers were:

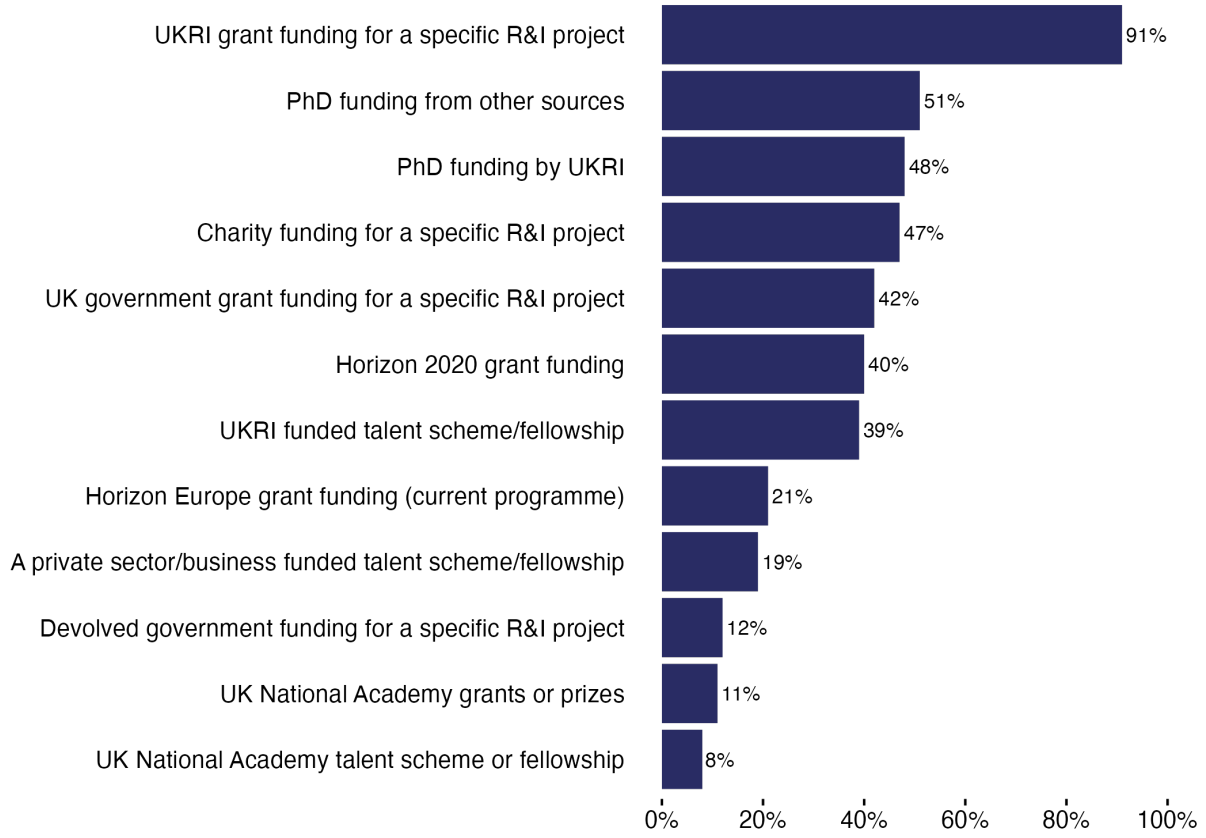
- UKRI grant funding (91%)[28]
- PhD funding from sources outside UKRI (51%)
- UKRI PhD funding (48%)
- charity funding (47%)

[27] Grant applications in this survey refer to a range of funding sources for research and innovation, including UKRI project and talent funding, UK and devolved government grants, EU programmes (Horizon 2020 and Horizon Europe), PhD funding, charity grants, private sector support, and UK National Academy schemes.

[28] UKRI was defined as: UKRI grant funding for a specific R&I project, including funding from a Research Council or Innovate UK

This order was consistent among those in higher education, where UKRI grant funding remained the most common (94%), followed by non-UKRI funding (62%), PhD funding (60%), and charity funding (57%). In contrast, among those in the private sector who had applied for grant funding, UKRI grants were still the most frequently applied for (91%), other sources differed, with UK Government grant funding (41%), Horizon 2020 funding (28%), and UKRI talent schemes / fellowship (21%) being more common. Similarly, UKRI grants were the most frequently applied for by respondents working in other sectors (81%), followed by UK Government grant funding (49%), charity funding (40%), Horizon 2020 funding (39%), and PhD funding from other sources (38%) as well as from UKRI, research councils or Innovate UK (35%). A further breakdown of grants applied for by sectors is reported in the Appendix A9.

Figure 7.1 Grants respondents have applied for in their career



Respondents were only asked this question if they had applied for a grant in their career (n = 14,003). This figure reports the percentage of people who reported they had applied for each grant (even if not received). A breakdown of grants applied for and received is reported in Appendix A9.

Respondents were then asked to list the names of any other UK grant funding for research and innovation they, or a team they had worked in, had applied for, or received in their career. Commonly reported grant funding included:

- UKRI funding, particularly focused on ESRC, MRC, EPSRC, and BBSRC
- EU Funding, particularly focused on Horizon Europe
- Charity funding, particularly focused on the Leverhulme trust, as well as health and social care, e.g. Nuffield Foundation, Joseph Rowntree Foundation, and Cancer UK

Respondents occasionally but less frequently reported funding from the private sector, the NHS, and internal university funding. This may be due to the sample composition, where less individuals were in the private sector or other sectors (like the NHS). Internal university funding may also be less common than external funding for those working in higher education.

Respondents who said they had applied for any grant funding for research and innovation in their career (n = 14,003) were also asked how they felt the government could support them better in their research and innovation career. This was an open question, where respondents could write up to 200 words. Responses broadly fell into six main themes as described in Table 7.1.

Table 7.1 Recurring suggestions for how respondents felt the government could support them better in their research and innovation career

Theme	Summary
Grants and funding	This theme focuses on comments calling for more funding support in grant applications, to make them simpler, and to make the selection process more transparent. Many people specifically mention increasing funding to UKRI.
Career training	Responses in this theme concern support and funding in training, with many people identifying early-career training as a key point of support.
R&D and R&I investment	This theme focuses on investment in and support for R&D/R&I.
Visas and immigration	Comments in this theme are about providing financial support for visa applications and adjusting immigration policy for the R&I workforce. Some respondents highlight the importance of straightforward immigration between the UK and EU.
Clinical academia and NHS funding and support	This theme contains responses calling for more funding for clinical academics, specifically in the NHS.
Feedback and peer review	This theme focuses on improving the peer review process and getting more feedback from successful applications. Some respondents suggest double blinding the review process to remove bias.

Overall, these themes suggest that the respondents feel they would be better supported if the government:

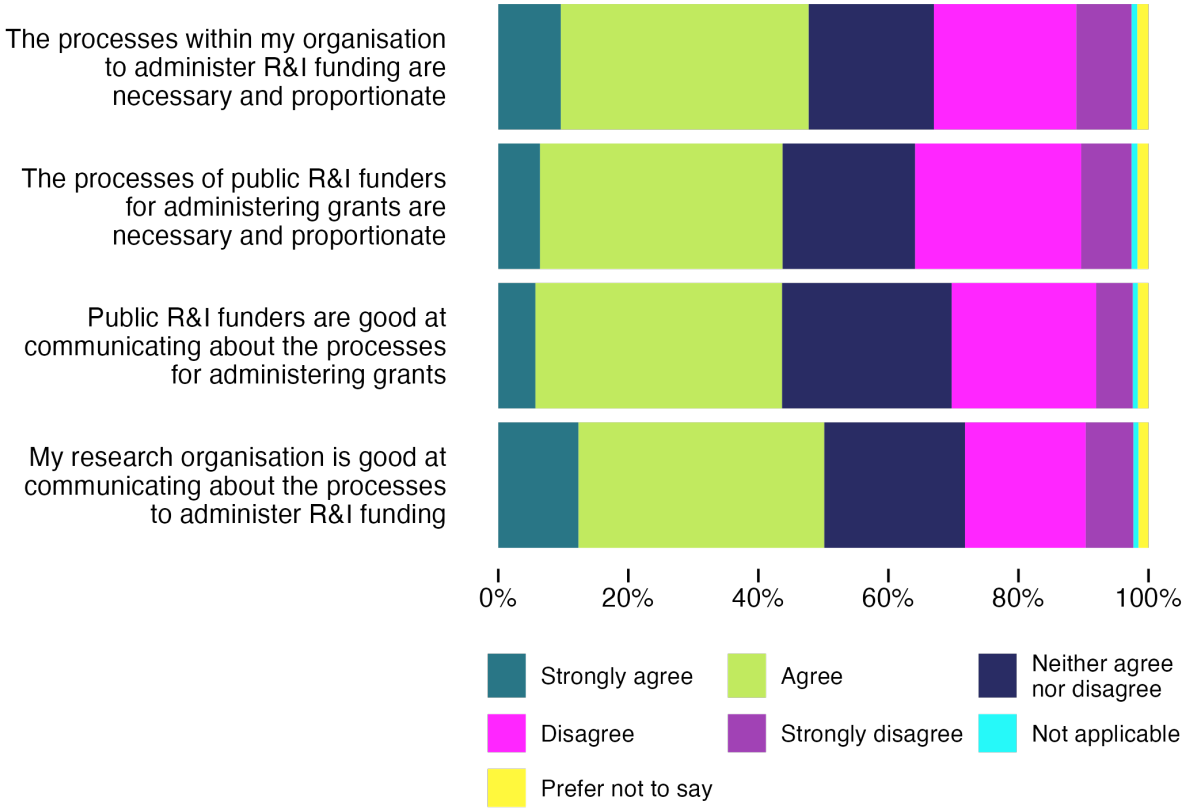
- enhanced grant accessibility by simplifying application processes, increasing UKRI funding, and improving transparency in selection criteria
- expanded career training support, particularly for early-career researchers, through targeted funding and mentorship programmes
- increased investment in R&D and R&I
- streamlined visa and immigration policies, including reducing costs and facilitating UK-EU mobility to attract and retain top talent
- increased investment in clinical academics within the NHS to support healthcare innovation
- supported the reform of the peer review process to increase transparency, provide detailed feedback, and consistently implement double-blind reviews to promote fairness and reduce bias

8. Results: Grant Funding Processes

This section covers questions around perceptions on how grant funding is administered, time spent across different research activities, and reasons for not applying for certain funding opportunities. Overall, results indicate that about half of the respondents agreed that processes for administering R&I funding are necessary and proportionate. Agreement was highest for statements about internal organisational processes and communication, but lower for public funders' processes and communication. This increased with career length and seniority, highlighting that more experienced researchers and those in leadership roles may feel more equipped to navigate bureaucratic processes.

Respondents who were currently doing research as part of a qualification, worked in higher education, public sector research establishments, UKRI research institutes, independent research organisations or catapult centres, and who had applied for or received any grant funding (n = 10,324) were asked about their perceptions of the processes through which research grants are administered. First, they were asked how strongly they agreed or disagreed with four statements (see Figure 8.1). Overall, the proportion who agreed or strongly agreed with the statements was highest for the statement that their research organisation is good at communicating about the processes to administer R&I funding (50%), followed by the processes within their organisation to administer R&I funding are necessary and proportionate (48%), the processes of public R&I funders for administering grants are necessary and proportionate (44%), and public R&I funders are good at communicating about the processes for administering grants (44%).

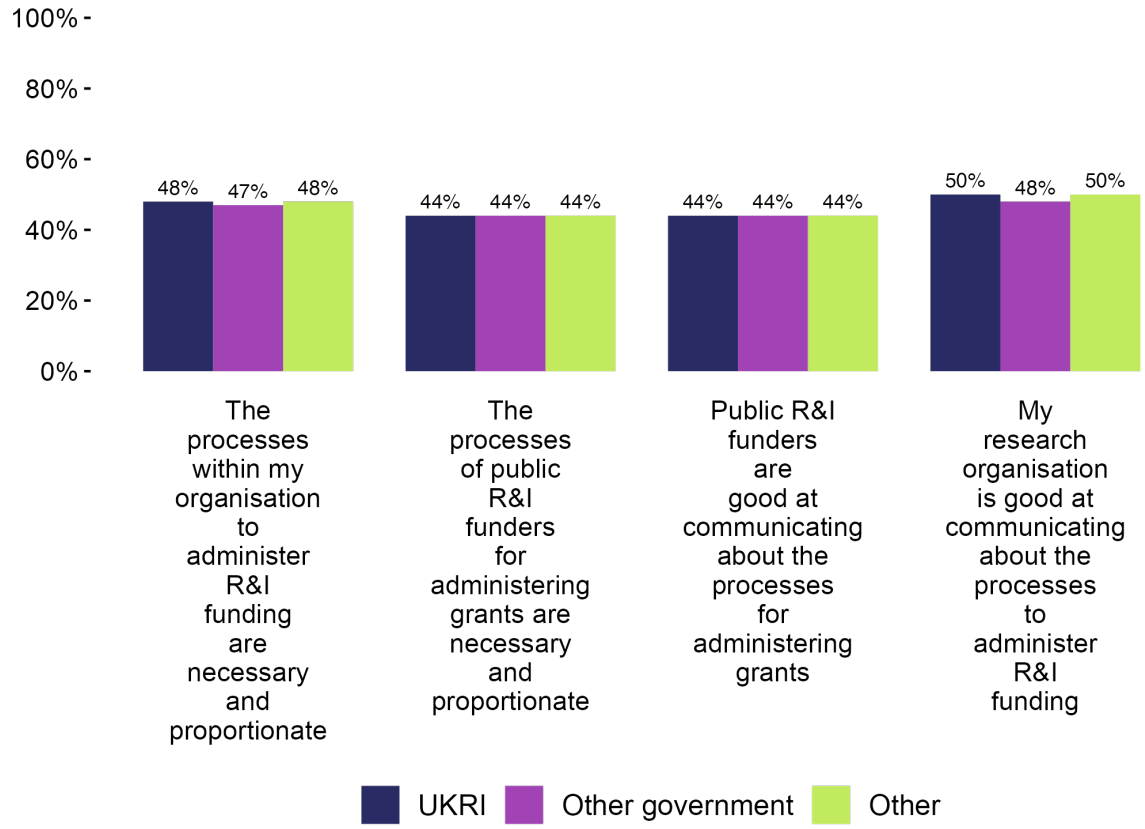
Figure 8.1 Perceptions of how grant funding is administered in the workplace



Only a subset of respondents were asked about their perceptions of bureaucracy. These were respondents who were currently doing research as part of a qualification, worked in higher education, public sector research establishments, UKRI research institutes, independent research organisations or catapult centres, and who had applied for or received any grant funding (n = 10,324). Respondents were shown each item and could only select one response per each item. See Appendix A10 for a further breakdown of this question by different variables.

The proportion who agreed with the statements was relatively consistent across the funding that they had received (Figure 8.2). However, agreement was higher for those with longer careers (e.g., 38% of those with a career length of 0-5 years agreed or strongly agreed that the processes of public R&I funders for administering grants are necessary and proportionate, compared to 44% for the 6-10 years and over 10 years categories). Agreement was also higher for those with more seniority for all four items (see Appendix 10 for full breakdown).

Figure 8.2 Perceptions of how grant funding is administered in the workplace, split by what funding people had received

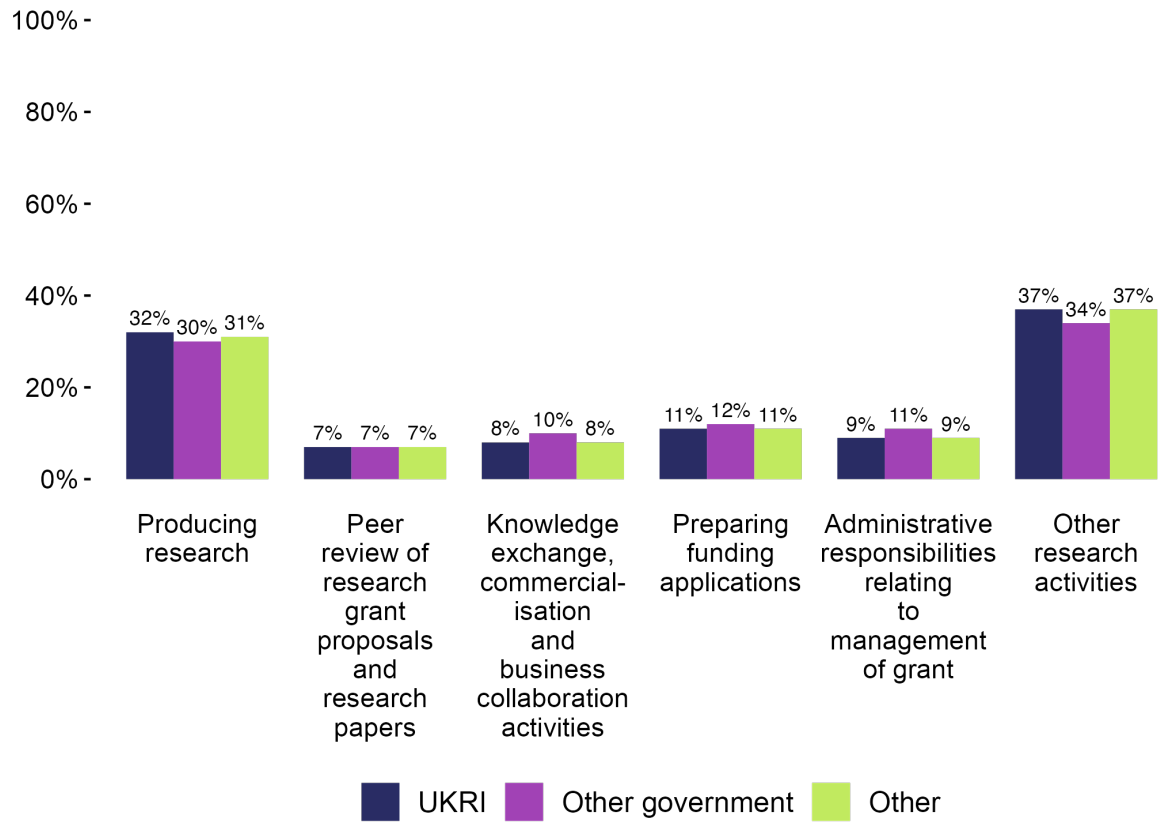


A subset of respondents (those who were currently doing research as part of a qualification, worked in higher education, public sector research establishments, UKRI research institutes, independent research organisations or catapult centres, and who had applied for or received any grant funding) were asked about their perceptions of bureaucracy and these are reported separately based on the type of grants respondents had applied for (note people could select multiple grant types; UKRI n = 10,053; Other government n = 4,590; Other n = 9,109). Respondents were shown each bureaucracy item. This graph shows the % who agreed or strongly agreed with each item. See Appendix A10 for a further breakdown of this question by different variables.

The same respondents were also asked about the percentage of time spent on different activities across an average working week. Overall, the activity that respondents reported spending the most time on was 'other activities', this option gave examples of teaching, leadership and management responsibilities, academic networking and dissemination activities, and other administrative responsibilities (unrelated to research grant/fellowships). On average, respondents estimated spending 37% of their time on these activities, based on their distribution of time across different tasks. This was followed by producing research (designing, conducting, analysing and writing up research, 32%), preparing funding applications (11%), administrative responsibilities relating to management of grant (9%), knowledge exchange, commercialisation and business collaboration activities (8%), and peer review of research grant proposals and research papers (7%).

The pattern of results was similar regardless of grant funding type they had applied for (see Figure 8.3). However, there were differences when comparing across career length and seniority, where those with longer careers or more senior roles spent less time on producing research and more time on other tasks. These patterns may reflect increased responsibilities at higher levels, highlighting potential implications for retaining senior researchers in direct research roles. See Appendix A10 for full breakdown by different variables.

Figure 8.3 Average percentage of time reported being spent on each research activity split by type of grants applied for



A subset of respondents (those who were currently doing research as part of a qualification, worked in higher education, public sector research establishments, UKRI research institutes, independent research organisations or catapult centres, and who had applied for or received any grant funding) were asked to estimate the percentage of their time they are spending on each of the activities in an average working week and these are reported separately based on the type of grants respondents had applied for (note people could select multiple grant types; UKRI n = 10,053; Other government n = 4,590; Other = 9,109. Each average excluded people who did not estimate any time for an activity. This means the n for each individual activity differs from the n's outlined above). See Appendix A10 for a further breakdown of this question by different variables.

Respondents who had not previously applied for UKRI, Research Council or Innovate UK grant funding (n = 1,412); Horizon 2020 grant funding (n = 6,607); or Horizon Europe

grant funding (n = 8,497) were then asked why they hadn't applied.[29] The most common answers for reasons for not applying for UKRI, Research Council or Innovate UK grant funding were that:

- they were not required to submit grant applications in their role (34%)
- they were not aware of the opportunity (18%)
- 'other reasons' (18%)

In contrast, the most common reasons for Horizon 2020 grant funding were:

- the application process being too complicated (27%)
- 'other reasons'[30] (20%)
- the application process being too long (20%)
- not being aware of the opportunities (20%)

Similarly, the most common reasons for Horizon Europe funding were:

- 'other reasons' (25%)
- the application process being too complicated (24%)
- the application process being too long (19%)
- not being aware of the opportunities (18%)

Interestingly, the pattern of responses varied by career length and seniority, where those with longer careers less frequently selected that they were not required to submit grant applications in their role, less frequently selected that they were not aware of the opportunities, and more often selected that the application was too complicated. Those in more senior positions also less frequently selected that they were not required to submit grant applications in their role and more frequently selected the application was too complicated, however they also more frequently selected they were not aware of the opportunities. See Appendix A10 for a full breakdown.

[29] Participants were asked why they hadn't applied for each type of funding individually. Participants were asked all three questions if they hadn't applied for any of the funding types.

[30] Other was defined as 'other- for example teaching, leadership and management responsibilities, academic networking and dissemination activities, other administrative responsibilities (unrelated to research grant/fellowships)'

Table 8.1 Reasons for not applying for certain funding, split by funding type

	UKRI, Research Council or Innovate UK grant funding	Horizon 2020 grant funding	Horizon Europe grant funding
The application process was too complicated	15%	27%	24%
The application process was too long	11%	20%	19%
I was not aware of these grant funding opportunities	18%	20%	18%
The timelines were too tight	11%	13%	15%
I am not required to submit grant applications in my role	34%	14%	13%
I did not meet eligibility requirements	15%	11%	9%
I couldn't locate support to help complete an application	Not asked	9%	8%
I had trouble joining a consortium	Not asked	13%	14%
Other	18%	20%	25%

Respondents who did not apply for each funding type were asked why (UKRI, Research Council or Innovate UK grant funding n = 1,412; Horizon 2020 grant funding n = 6,607; Horizon Europe grant funding n = 8,497). See Appendix for a further breakdown of these questions by different variables.

9. Results: Workplace culture

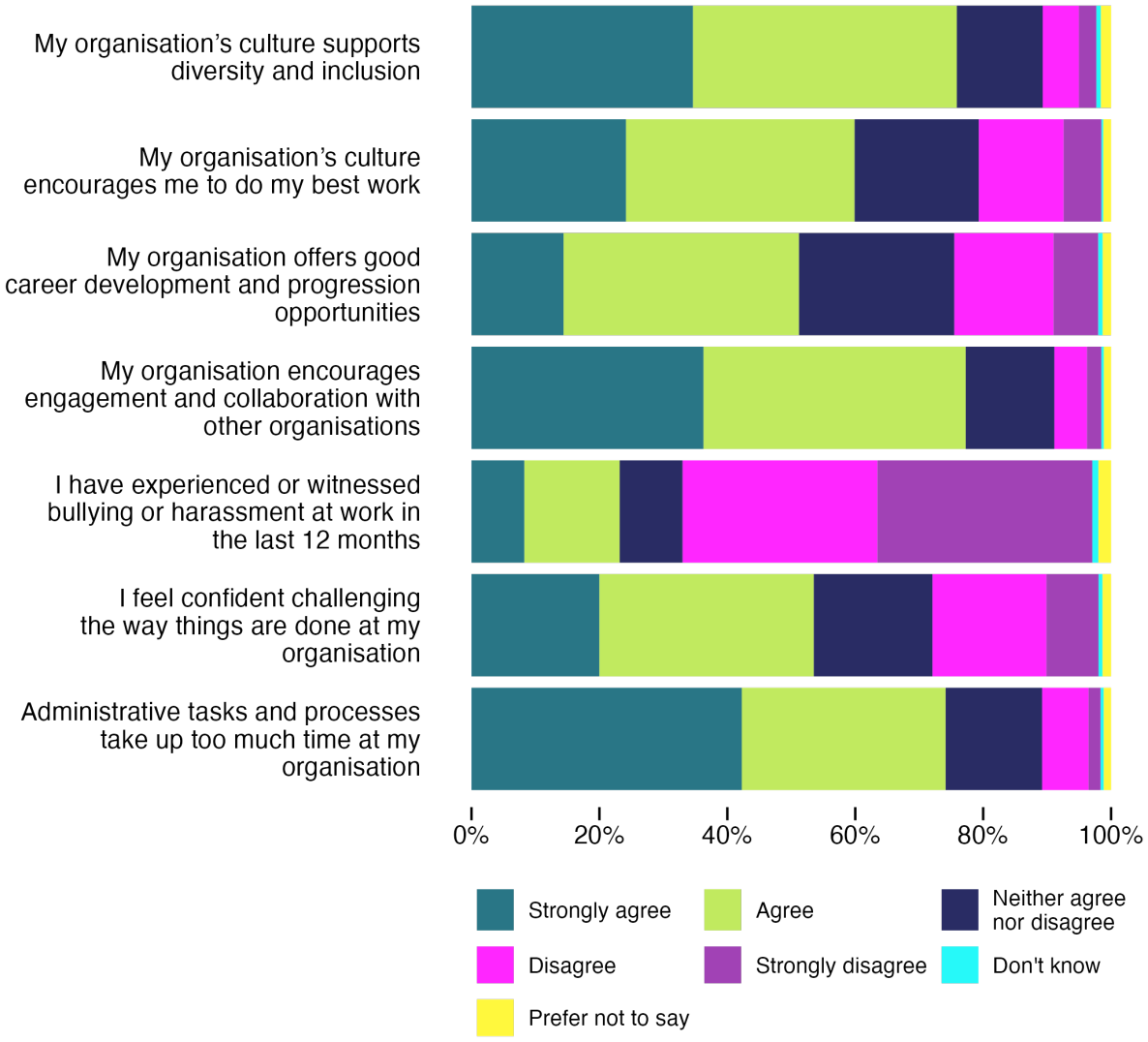
9.1 Current workplace culture

This section focused on workplace culture, asking respondents their agreement with statements about culture in their workplace. Overall, workplace culture across the research and innovation (R&I) sectors demonstrated strong support for collaboration and diversity. However, there are points for improvement, particularly in areas such as career progression, administrative burdens, and workplace bullying. These challenges vary across sectors, demographics, and career stages, revealing specific disparities: higher administrative burdens in higher education, lower confidence levels among ethnic minorities, and increased incidents of bullying reported by women and individuals with workplace-limiting disabilities.

All respondents except those who were self-employed or unemployed (n = 14,959) were asked questions about their workplace culture. Figure 9.1.1 shows the percentage of the overall sample who agreed with seven items related to workplace culture. Overall, the proportion who agreed or strongly agreed with the statements was:

- Encourages engagement and collaboration with other organizations (77%)
- Culture supports diversity and inclusion (76%)
- Administrative tasks and processes take up too much time (74%)
- Culture encourages them to do their best work (60%)
- Confidence to challenge the way things are done (54%)
- Good career development and progression opportunities (51%)
- Experienced or witnessed bullying at work in the last 12 months (23%)

Figure 9.1.1 Workplace culture



This question was asked to all respondents excluding those who identified as unemployed or self-employed (n = 14,959). For each item, respondents could only select one response. See Appendix A11 for a further breakdown of this question by different current main sectors.

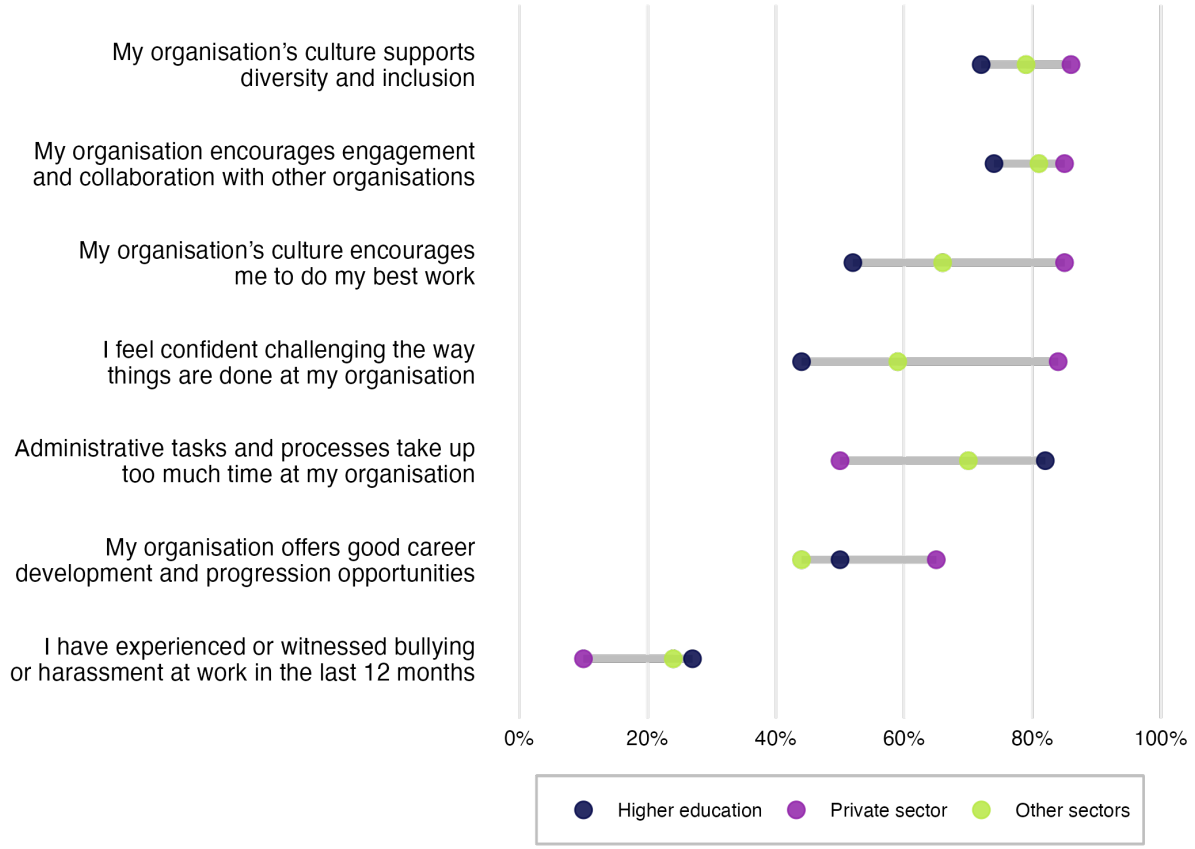
The proportion of individuals who agreed with the statements differed across the sector type they worked in (see Figure 9.1.2). The largest differences were for:

- confidence in challenging the way things are done at their organisation (44% higher education, 59% other sector, 84% private sector)
- that their organisation's culture encourages them to do their best work (52% higher education, 66% other sector, 85% private sector)
- that administrative tasks and processes take up too much time (82% higher education, 70% other sector, 50% private sector)

The pattern was largely similar across ethnicity (see Figure 9.1.3), though Asian, mixed and other ethnic groups generally reported less agreement with the statements compared to White and Black respondents.

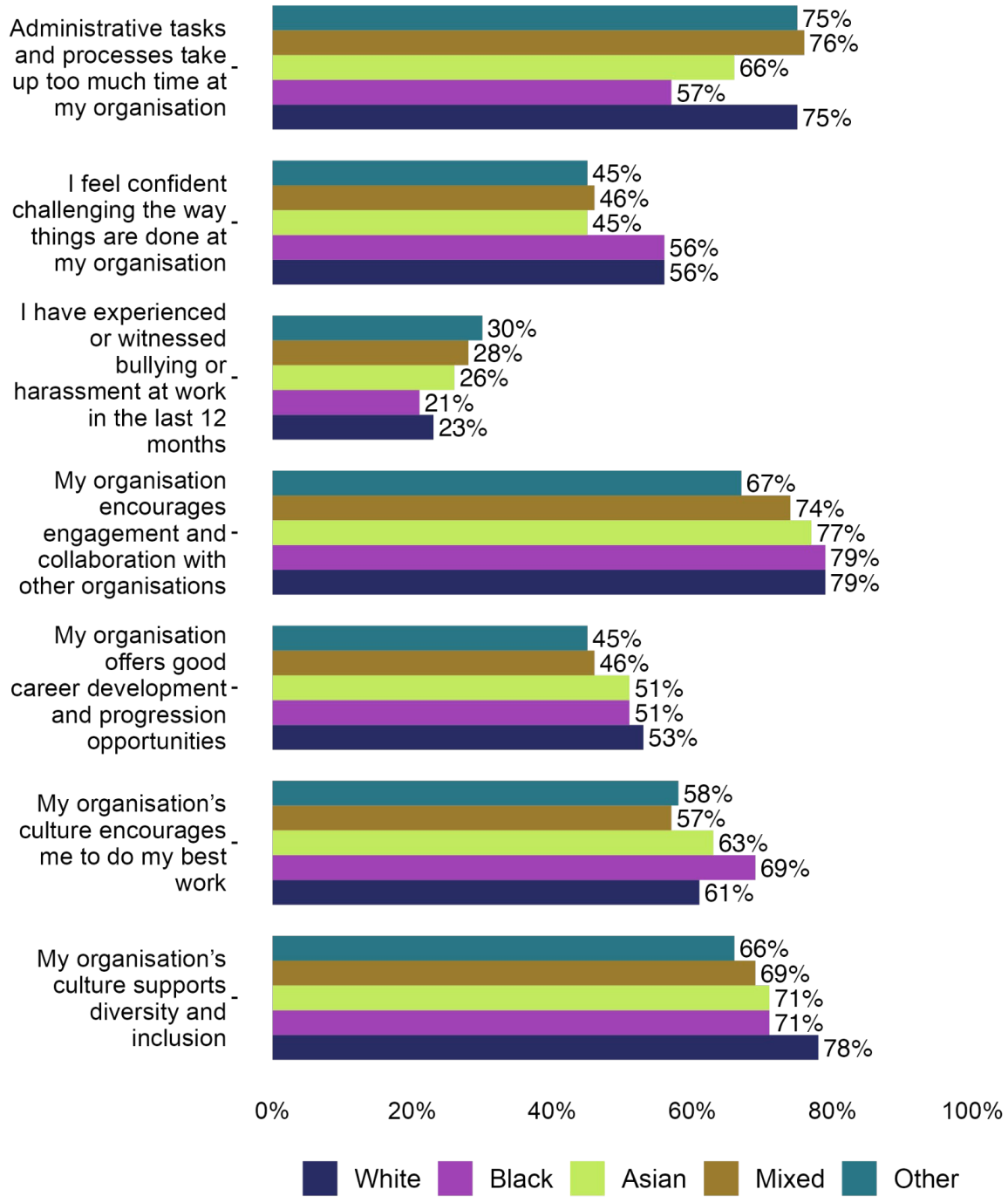
The results suggest that workplace culture perceptions varied substantially by sector. Confidence in challenging norms and feeling encouraged to do one's best work were highest in the private sector, while frustration with administrative tasks was highest in higher education.

Figure 9.1.2 Workplace culture by main sector worked in



All respondents were asked questions on their current main sector but only a subset of these respondents excluding those who identified as unemployed or self-employed were asked questions on workplace culture (Higher education n = 9,586 ; Private sector n = 2,592; Other sectors n = 2,746). Respondents were asked the extent to which they agree with each statement and this plot shows the percentage of respondents who said they 'Strongly agree' or 'Agree' with each statement. See Appendix A11 for a further breakdown of this question by different sectors.

Figure 9.1.3 Workplace culture by ethnicity

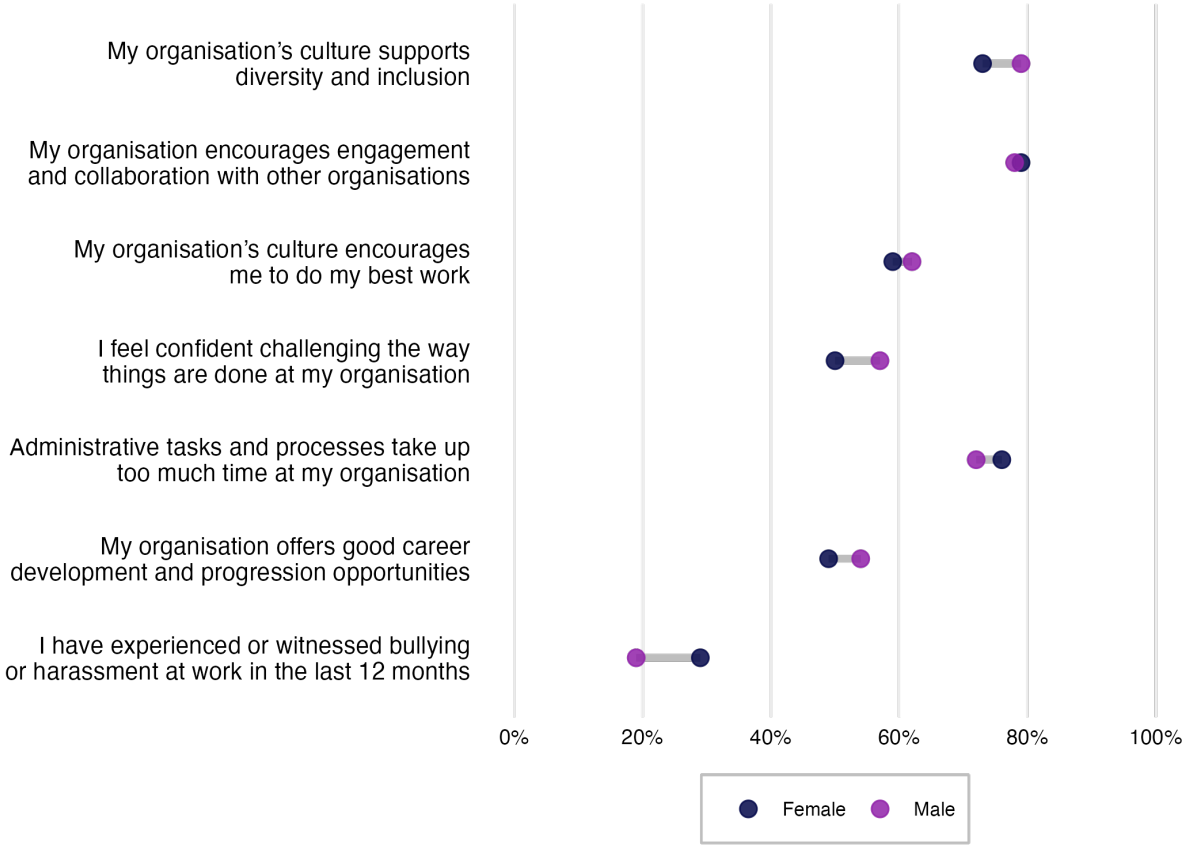


All respondents were asked questions on their ethnicity but only a subset of these respondents excluding those who identified as unemployed or self-employed were asked questions on workplace culture (White n = 11,969 ; Ethnic minorities (excluding White minorities) n = 2,007). Respondents were asked the extent to which they agree with each statement and this plot shows the percentage of respondents who said they 'Strongly agree' or 'Agree' with each statement. See Appendix A11 for a further breakdown of this question by different variables.

There were some differences across gender (see Figure 9.1.4), where men more often selected they were confident challenging the way things were done (57% men vs 50% women) and women more often selected that they had experienced bullying in the workplace (29% women vs 19% men). There were also some differences across career length, with the largest being that administrative tasks and processes take up too much time (54% 0-5 years 67% 6-10 years, 77% 10 or more years), that their organisation encourages them to do their best work (76% 0-5 years 67% 6-10 years, 57% 10 or more years), and that they are confident challenging the way things were done (67% 0-5 years 57% 6-10 years, 52% 10 or more years).

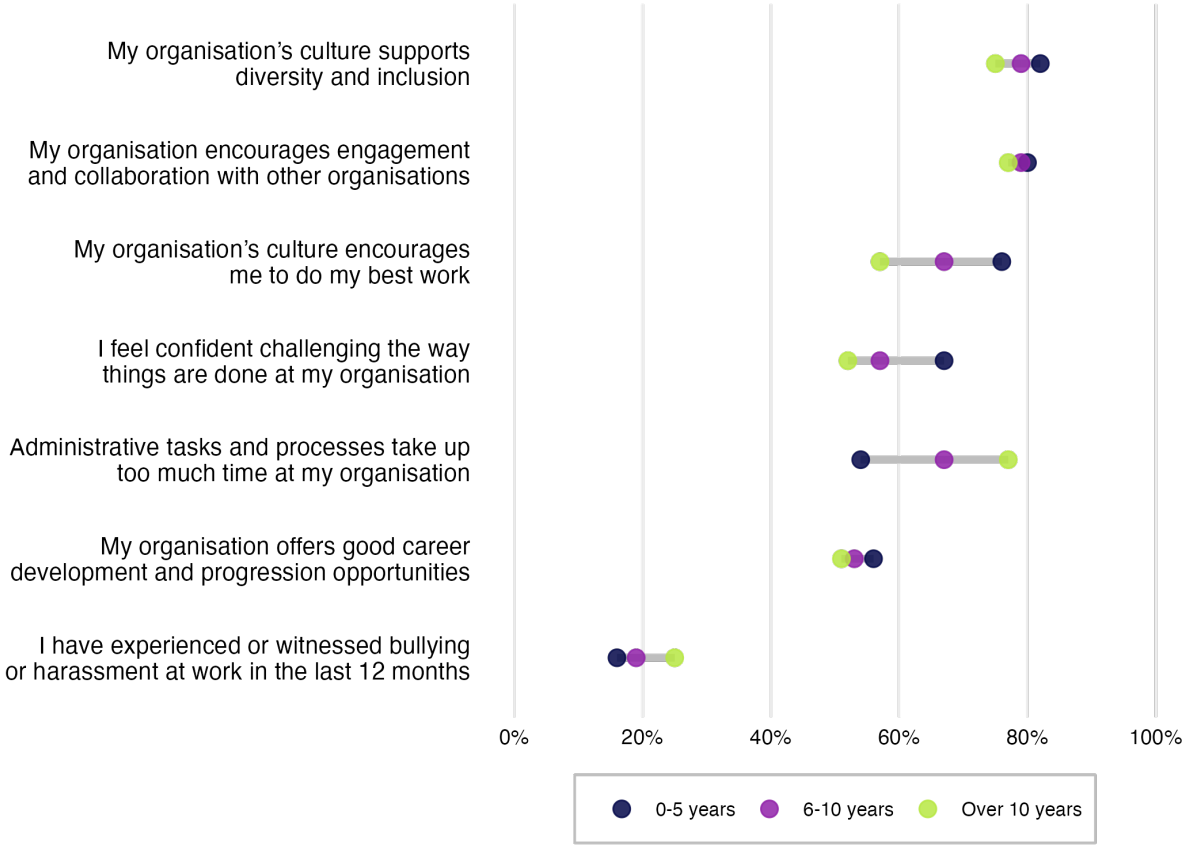
Similarly, as administrative burdens increase with career length, motivation and confidence to challenge norms decrease over time.

Figure 9.1.4 Workplace culture by gender



All respondents were asked a question on their gender but only a subset of these respondents excluding those who identified as unemployed or self-employed were asked questions on workplace culture (Female n = 5,663 ; Male n = 8,537). Respondents were asked the extent to which they agree with each statement and this plot shows the percentage of respondents who said they 'Strongly agree' or 'Agree' with each statement. See Appendix A11 for a further breakdown of this question by different variables.

Figure 9.1.5 Workplace culture by career length



All respondents were asked questions on their career length but only a subset of these participants excluding those who identified as unemployed or self-employed were asked questions on workplace culture (0-5 years n = 1,098; 6-10 years n =1,679; Over 10 years n = 12,072). Respondents were asked the extent to which they agree with each statement and this plot shows the percentage of respondents who said they 'Strongly agree' or 'Agree' with each statement. See Appendix for a further breakdown of this question by different sectors.

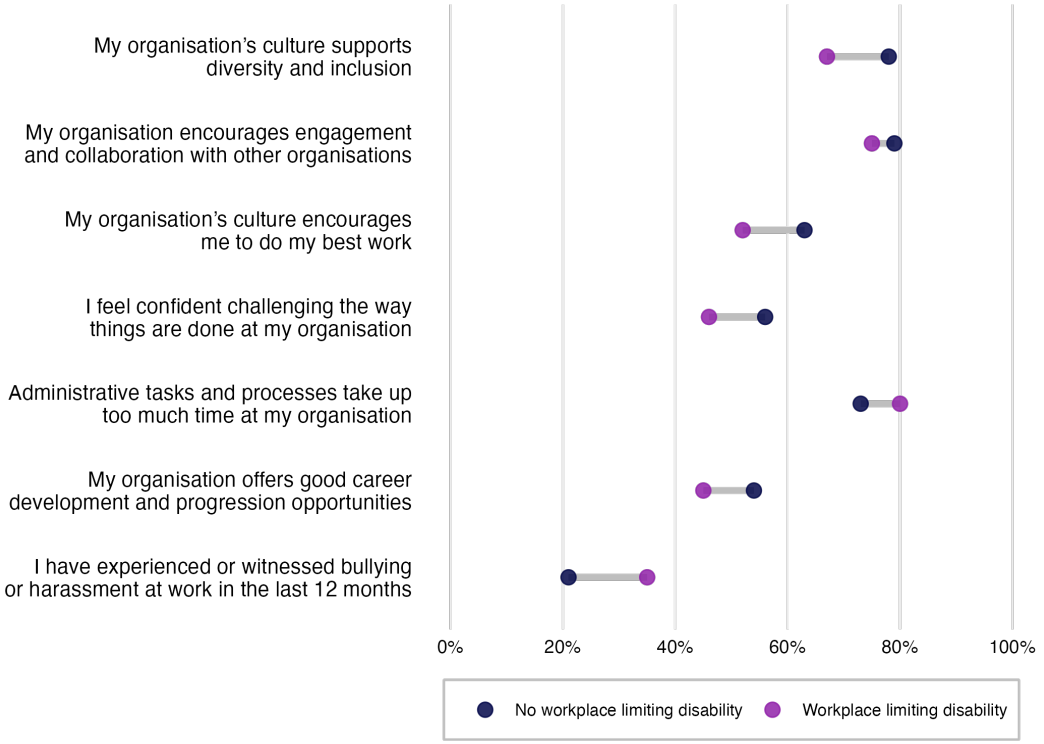
There were some differences in agreement with workplace culture across whether respondents had a workplace limiting disability, where agreement with positive statements was lower and negative statements was higher when respondents had a workplace limiting disability. The largest differences were:

- having experienced or witnessed bullying at work in the last 12 months (21% in those without a workplace limiting disability vs 35% in those with a workplace limiting disability)
- their organisation's culture supporting diversity and inclusion (78% in those without a workplace limiting disability vs 67% in those with a workplace limiting disability)
- that their organisation encourages them to do their best work (63% in those without a workplace limiting disability vs 52% in those with a workplace limiting disability)

See Appendix A11 for a full breakdown across all variables of interest.

The findings suggest that respondents with workplace-limiting disabilities were less likely to agree with positive cultural statements and are more likely to have witnessed or experienced bullying.

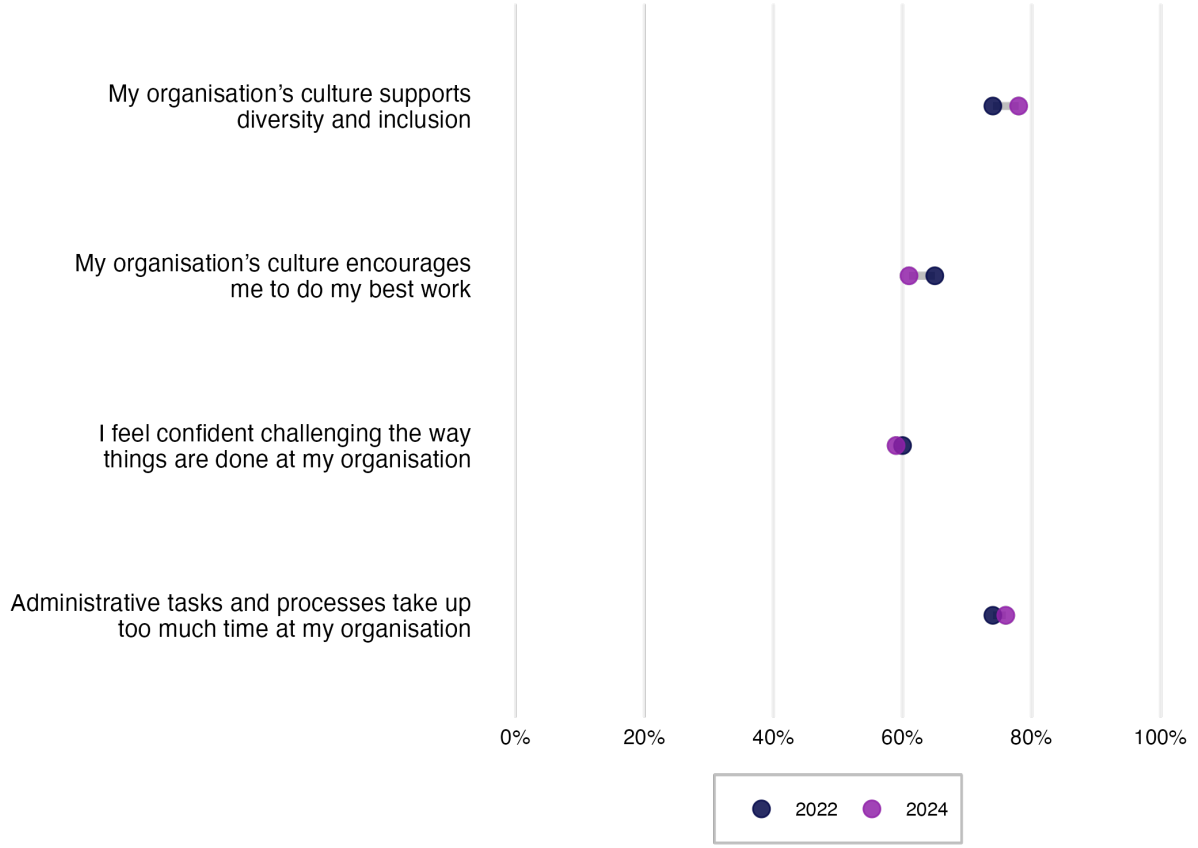
Figure 9.1.6 Workplace culture by those with workplace limiting disability



All respondents were asked whether they had a workplace limiting disability but only a subset of these respondents excluding those who identified as unemployed or self-employed were asked questions on workplace culture (No workplace limiting disability n = 11,957 ; Workplace limiting disability n = 1,170). Respondents were asked the extent to which they agree with each statement and this plot shows the percentage of respondents who said they 'Strongly agree' or 'Agree' with each statement. See Appendix A11 for a further breakdown of this question by different variables.

Four of the workplace culture questions were asked in both the 2022 and 2024 waves (Figure 9.1.7). Two questions were statistically significantly different across the waves after controlling for multiple comparisons: that their organisation's culture supports diversity and inclusion (74% in 2022 vs 78% in 2024, $p < 0.05$), and that their organisation's culture encourages them to do their best (65% in 2022 vs 61% in 2024, $p < 0.05$).

Figure 9.1.7 Workplace culture by survey wave



A comparison of perceptions of workplace culture between 2022 and 2024 (n = 1,234). Respondents were asked the extent to which they agree with each statement and this plot shows the percentage of respondents who said they 'Strongly agree' or 'Agree' with each statement. See the Appendix A13 for the results of the longitudinal analysis split by sector.

9.2 Improving workplace culture

To understand respondents' perceptions of how to improve their workplace's culture, the survey included an open-ended question allowing responses of up to 200 words on what would improve the culture of the respondent's organisation. Overall, highlighting six key areas for improvement: increasing available research time or reducing administrative burdens, increasing funding and investment, restructuring leadership hierarchies, enhancing staff support, addressing bullying in the workplace and increasing diversity in senior leadership.

Comments about increasing available research time focused on spending too much time on administrative tasks and too much bureaucracy. Comments on funding and investment suggested that they needed increased funding into research to reduce financial strain and free up time to work. Comments around senior management suggested changes to senior leadership and hierarchical structures. Comments on staff support called for more support to boost morale and foster a collaborative culture. Comments on bullying and workplace behaviour suggested that

inappropriate behaviour needed more consequences and that behaviour of individuals in more senior positions often goes unpunished. Finally, comments that covered diversity suggest that there was a need to increase diversity, especially in senior leadership.

Table 9.2.1 Recurring suggestions for how to improve workplace culture

Theme	Summary
Increasing available research time	This theme focuses on increasing the time available for research. People mention that too much time is spent on administration tasks, and that there is too much bureaucracy.
Funding and investment	In this theme people talk about increasing funding and investment into research with the aim of reducing financial strain and freeing up time to work.
Senior management	This theme includes comments about senior leadership and the hierarchical structure of the workplace.
Staff support	This theme focuses on comments calling to increase the support available to staff, boosting morale and fostering a collaborative working culture.
Bullying and workplace behaviour	This theme contains comments calling for more consequences for bullying and harassment in the workplace, with some people noting that bullying by senior staff members often goes unpunished.
Diversity	Responses in this theme focus on increasing diversity in the workplace, highlighting the need for more diverse senior leadership.

10. Results: Skills

10.1 Skills needed for current role

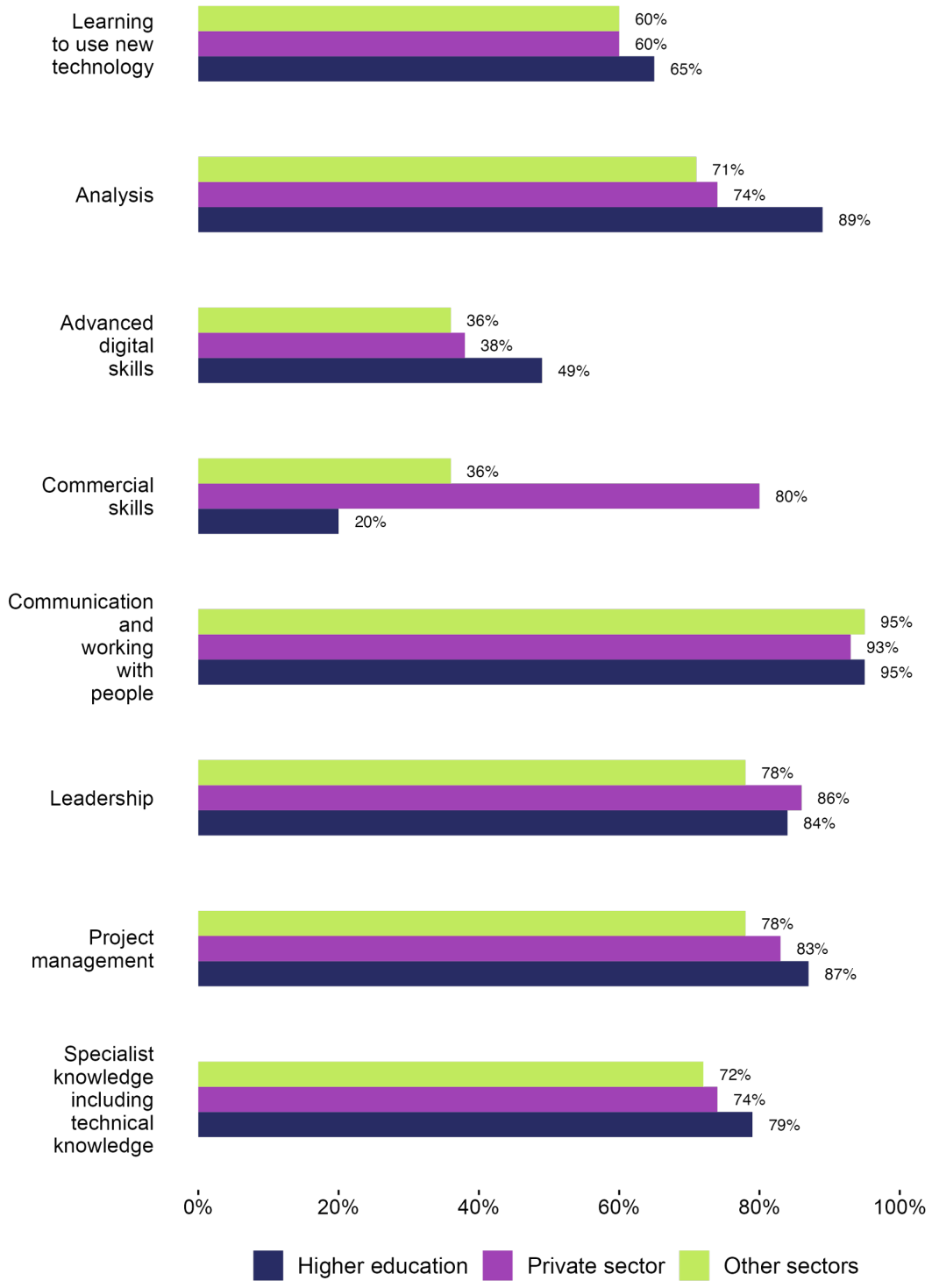
Next, respondents were asked about the categories of competencies or abilities that exist within the R&I workforce that they need for their current role. Overall, communication and working with people emerged as the most important rated skill across sectors, followed by project management, analysis, leadership skills and specialist knowledge. However, the importance of specific skills varied depending on the sector, career stage, and educational attainment.

Respondents who were employed or in paid work were asked how important (i.e. 4 or 5 on a 1-5 scale with 1 being not at all important and 5 being essential) different skills are for their current job. Overall, most skills were important to their role. The skills that were reported as important by the most respondents were:

- communication and working with people (94%)
- project management (85%)
- analysis (83%)
- leadership (83%)
- specialist knowledge (77%)
- learning to use new technology (63%)

Two skills were less likely to be cited as important - advanced digital skills (such as programming) (45%) and commercial skills (34%). However, the skills rated as important varied by the current sector the individual worked in (see Figure 10.1.1). The largest difference was in commercial skills, which were more frequently rated important for those working in the private sector (80%) compared to other sectors (36%) and higher education (20%). Analysis and advanced digital skills also showed differences, with both being more likely to be rated as important by those working in higher education (89% in analysis and 49% in advanced digital skills) compared to the private sector (74% and 38% respectively) and other sectors (71% and 36% respectively).

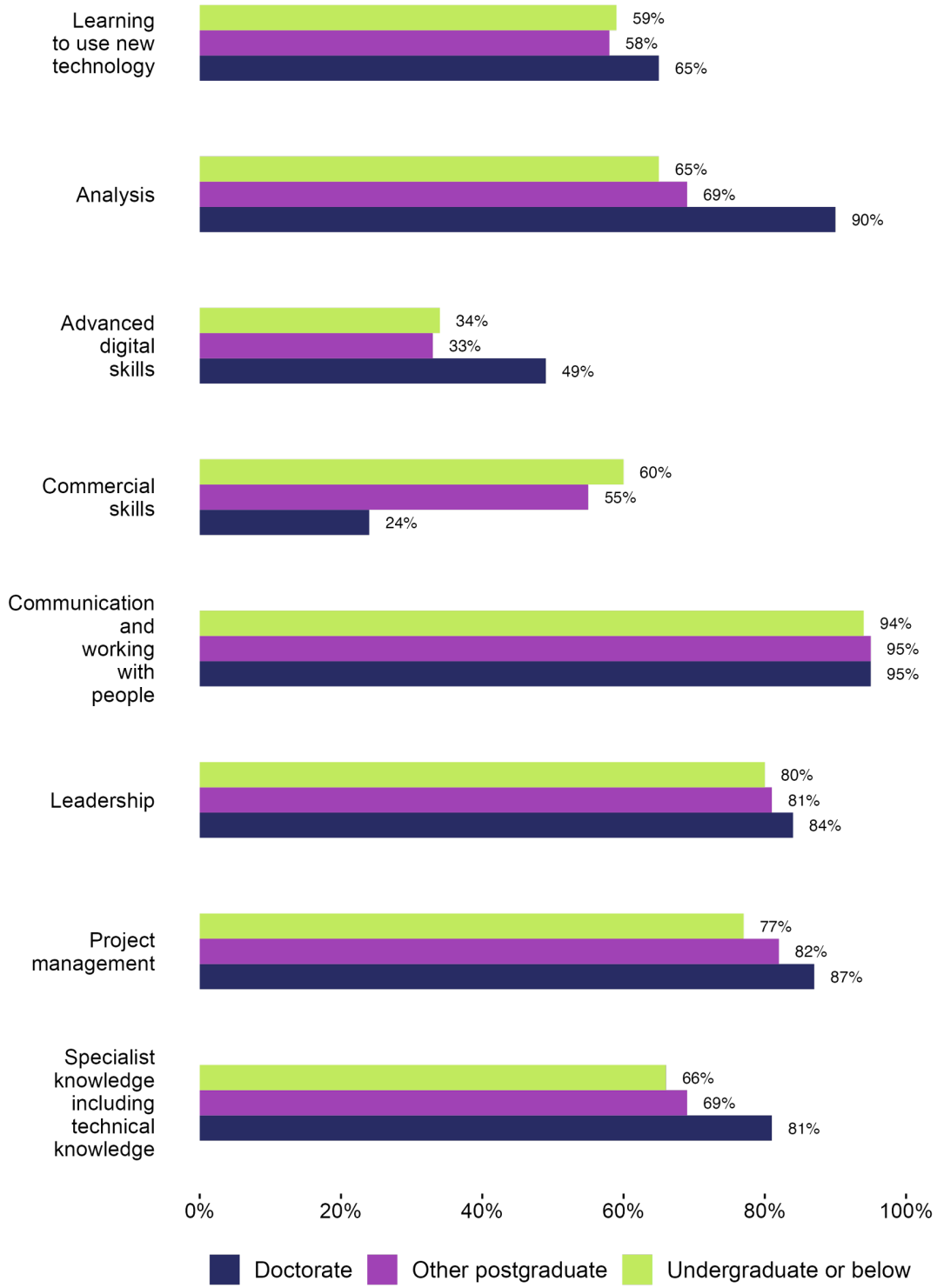
Figure 10.1.1 Skills considered important for current role by sector



All respondents were asked questions on their current main sector but only a subset excluding those who identified as unemployed were asked what skills were needed for their current role (Higher education n = 9,621; Private sector n = 2,655; Other sectors n = 2,798). Respondents were asked to rate the extent to which each skill is important to their role on a 1-5 scale with 1 meaning not at all important and 5 meaning essential. This plot shows the percentage of respondents who rated the skill as important (4 or 5). See Appendix A12 for a further breakdown of this question by different sectors.

There were also differences in the skills rated as important by highest educational attainment (see Figure 10.1.2). Most notably, those with a doctorate degree more often considered analysis, advanced digital skills, learning to use new technology, and specialist knowledge including technical knowledge as more important to their role than those with other postgraduate degrees or an undergraduate degree or below. As with the other elements of this survey, this may be due to sample composition, where those with doctoral degrees were more likely to work in higher education.

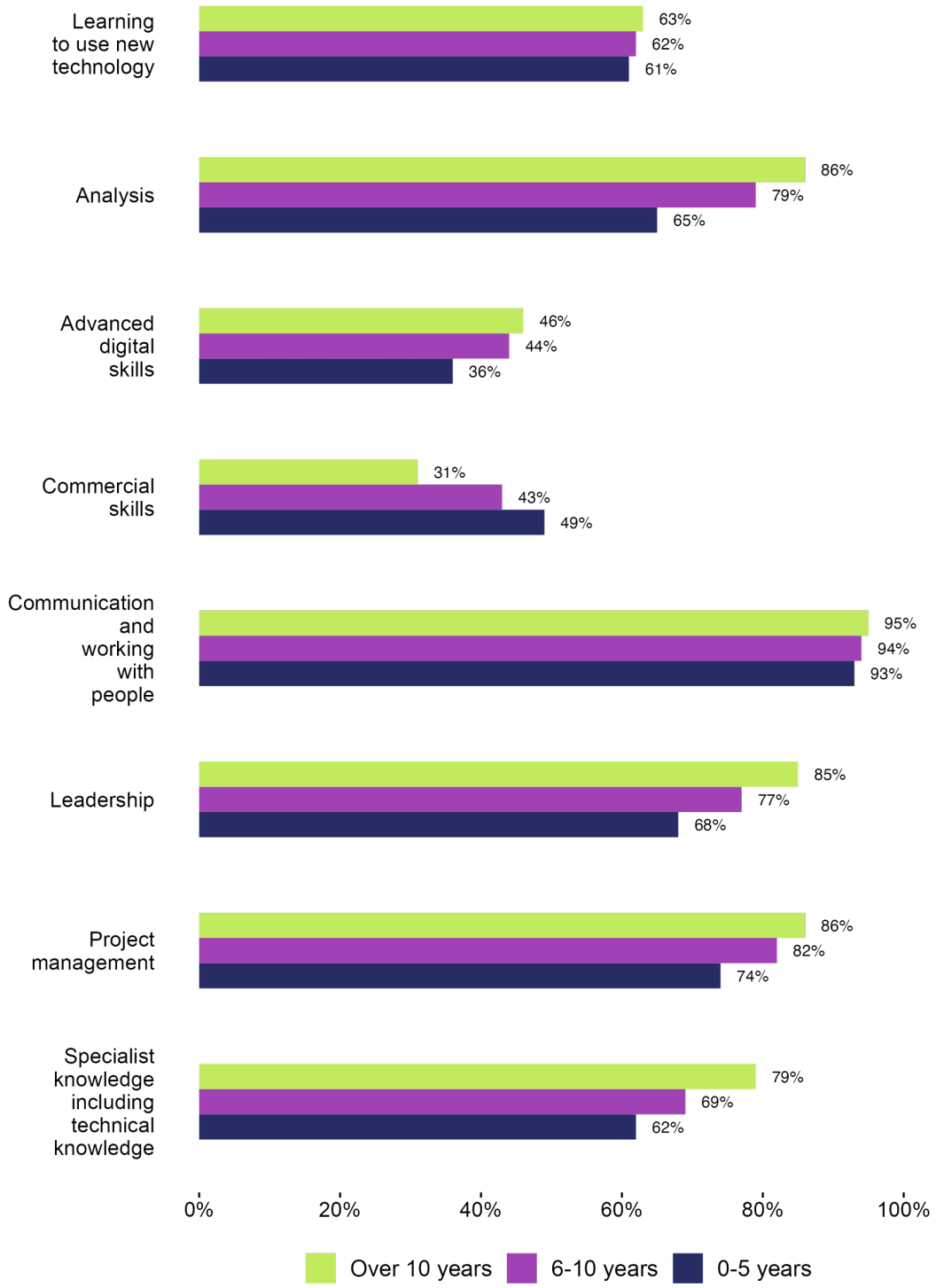
Figure 10.1.2 Skills considered important for current role by highest educational attainment



All respondents were asked questions on their highest educational attainment but only a subset excluding those who identified as unemployed were asked what skills were needed for their current role (doctorate n = 10,806; other postgraduate n = 1,964; undergraduate or below n = 2,199). Respondents were asked to rate the extent to which each skill is important to their role and this plot shows the percentage of respondents who said the skill is 'Essential' or 'Moderately important' for each statement. See Appendix A12 for a further breakdown of this question by different questions.

There were also differences in the skills rated as important by career length (Figure 10.1.3). Those with a longer career length (over 10 years) more often considered leadership, specialist knowledge, project management and analysis as important compared to those with a shorter career length (0-5 years and 6-10 years). Those with a shorter career more often considered commercial skills as important. See Appendix A12 for full breakdown across variables. However, it's worth noting that those with a longer career length more frequently worked in higher education, whereas those with a shorter career more frequently worked in the private sector, making it difficult to determine whether career length or sector is driving the observed differences.

Figure 10.1.3 Skills considered important for current role by career length



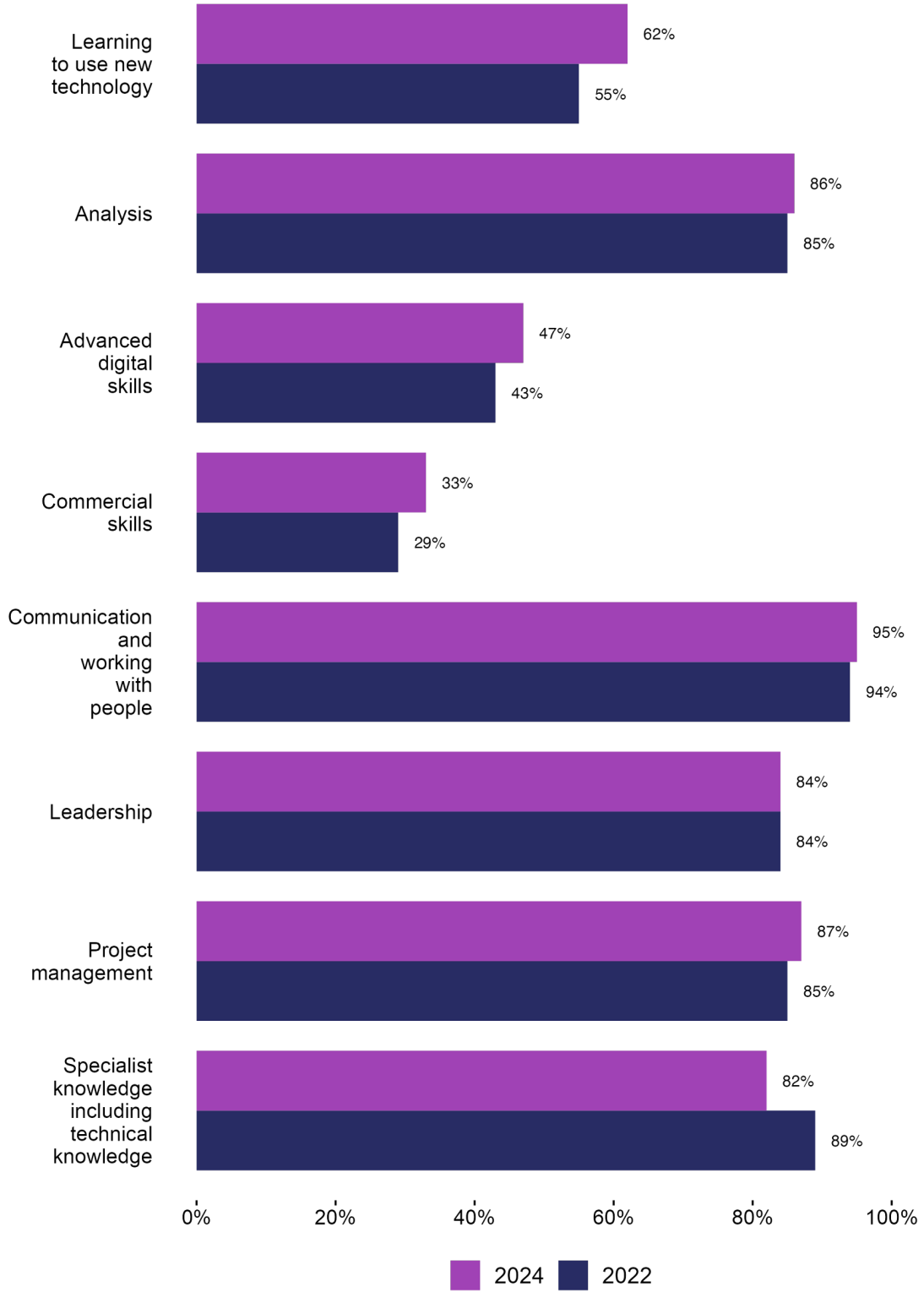
All respondents were asked questions on their career length but only a subset excluding those who identified as unemployed were asked what skills were needed for their current role (0-5 years n = 1,116; 6-10 years n = 1,700; Over 10 years n = 12,182). Respondents were asked to rate the extent to which each skill is important to their role on a 1-5 scale with 1 meaning not at all important and 5 meaning essential. This plot shows the percentage of respondents who rated the skill as important (4 or 5). See Appendix A12 for a further breakdown of this question by different questions.

When comparing individuals who took part in both 2022 and 2024 waves and agreed to linking their data (Figure 10.1.4), we found statistically significant differences for:

- learning to use a new technology (55% in 2022 vs 62% in 2024, $p < 0.001$)
- advanced digital skills such as programming (43% in 2022 vs 47% in 2024, $p < 0.001$)
- commercial skills (29% in 2022 vs 33% in 2024, $p < 0.01$)
- specialist knowledge including technical knowledge (89% in 2022 vs 82% in 2024, $p < 0.001$)

These results may suggest that commercial skills and skills focused on innovation may be becoming more important to the R&I workforce, whereas specialist knowledge may be becoming less important. It will be interesting to track these trends over time, especially with the new advancements in AI. Full results are presented in Appendix A13.

Figure 10.1.4 Skills considered important for current role by survey wave



A comparison of the skills needed for the current role between 2022 and 2024 (n = 1,263). Respondents were asked to rate the extent to which each skill is important to their role and this plot shows the percentage of respondents who said the skill is 'Essential' or 'Moderately important' for each statement. See the Appendix A13 for the results of the longitudinal analysis split by sector.

10.2 Recent training and development

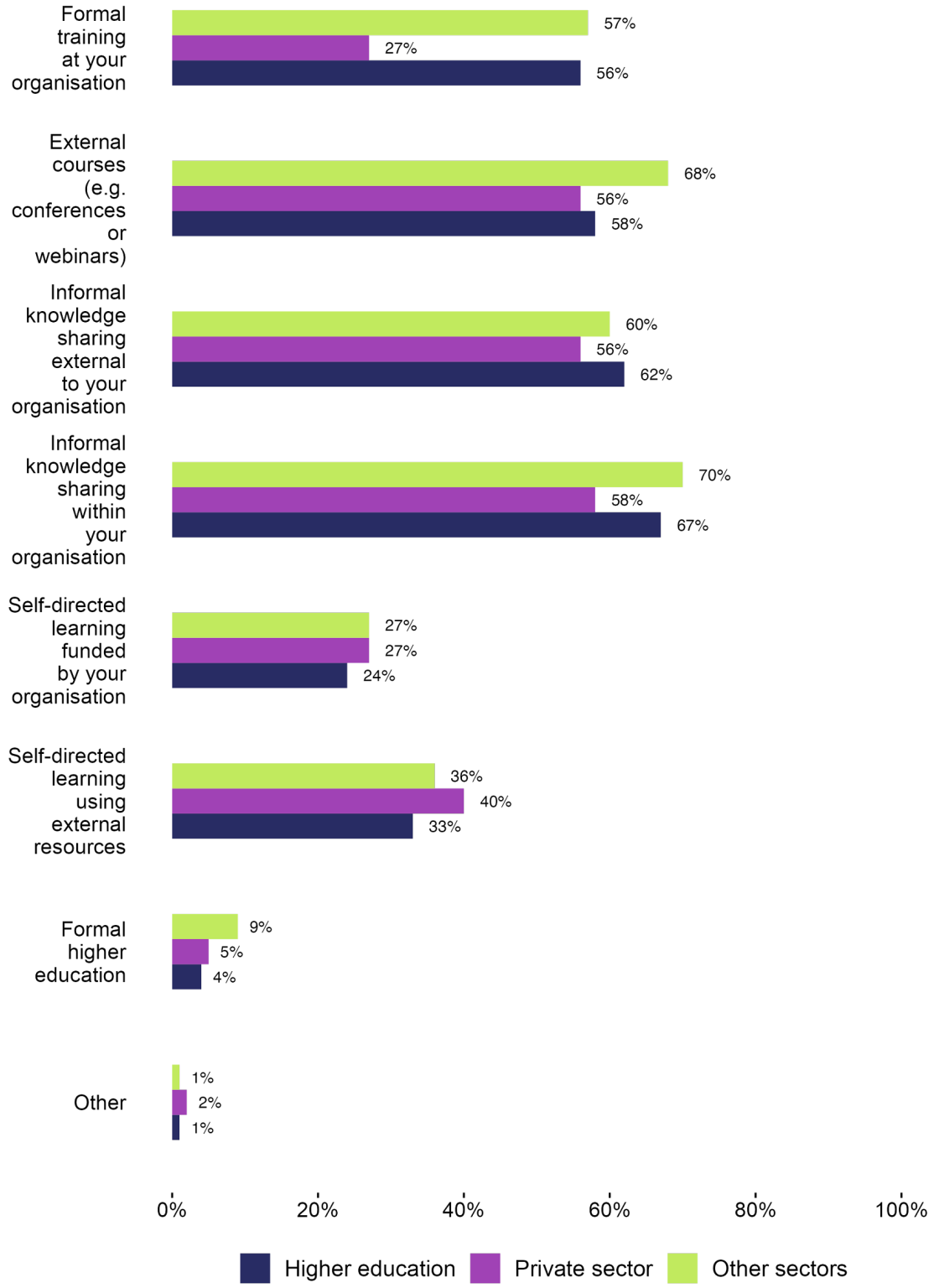
This section explored the training respondents participated in over the last 12 months. In summary, training participation remains high across sectors, with a preference for informal knowledge sharing and external courses. The results also suggest that formal training was more common in higher education and other sectors compared to the private sector. Those with postgraduate qualifications (including doctorates) were more likely to engage in external courses and self-directed learning and interestingly, while these increased with career length, informal knowledge sharing was more popular among those in the earlier stages of their careers.

All respondents were asked which training or learning and development they had taken part in during the past 12 months. Of the total sample (n =15,168), 93% said they had taken part in at least one type of training or learning and development. This was similar when looking just at respondents working in higher education (93%), the private sector (90%) and other sectors (94%). In total:

- 66% had taken part in informal knowledge sharing within their organisation
- 60% had done an external course
- 60% had taken part in informal knowledge sharing external to their organisation
- 51% had done formal training at their organisation

Fewer respondents selected that they had done self-directed learning using external resources (35%), self-directed learning funded by your organisation (25%), or formal higher education (5%). There were differences in the overall patterns split by sector (see Figure 10.2.1). The largest difference was in formal training at their organisation, where 57% of those in other sectors and 56% of those in higher education had done formal training, compared to just 27% in the private sector.

Figure 10.2.1 Recent training by sector

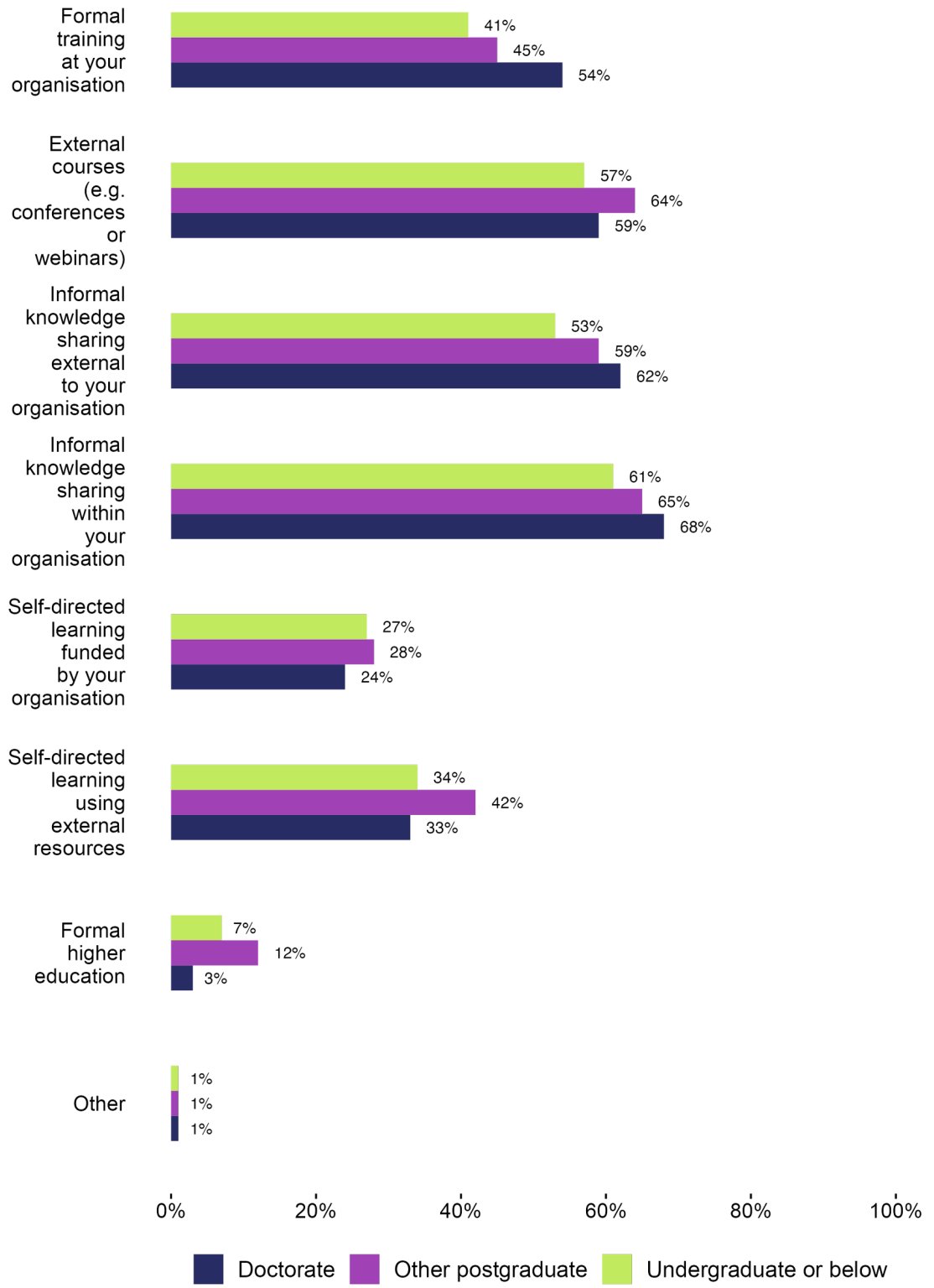


All respondents were asked questions on sector and training (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814). Respondents were asked which training or learning and development they had taken part in during the past 12 months and could select multiple responses. See Appendix A12 for a further breakdown of this question by different sectors.

When looking at types of recent training split by highest education attainment (Figure 10.2.2), we found that those with higher levels of education tended to report higher levels of each type of training. Those with other postgraduate qualifications (excluding doctorates) reported higher attendance to:

- external courses (64% other postgraduate qualifications, compared to 59% with a doctorate degree (59%) and 57% with an undergraduate or below)
- formal education (12% other postgraduate vs 7% undergraduate and below and 3% doctorate)
- self-directed learning using external resources (42% other postgraduate vs 34% undergraduate and below and 33% doctorate)
- self-directed learning funded by their organisation (28% other postgraduate vs 27% undergraduate and below and 24% doctorate)

Figure 10.2.2 Recent training by highest educational attainment



All respondents were asked questions on highest educational qualification and training (doctorate n = 10,845; Other postgraduate n = 1,969; Undergraduate or below n = 2,205). Respondents were asked which training or learning and development they had taken part in during the past 12 months and could select multiple responses. See Appendix A12 for a further breakdown of this question by different questions.

When looking at recent training split by career length (Figure 10.2.3), we found differences between the type of training that was popular at early and later career stages, where the following seemed to get more popular as career length increased:

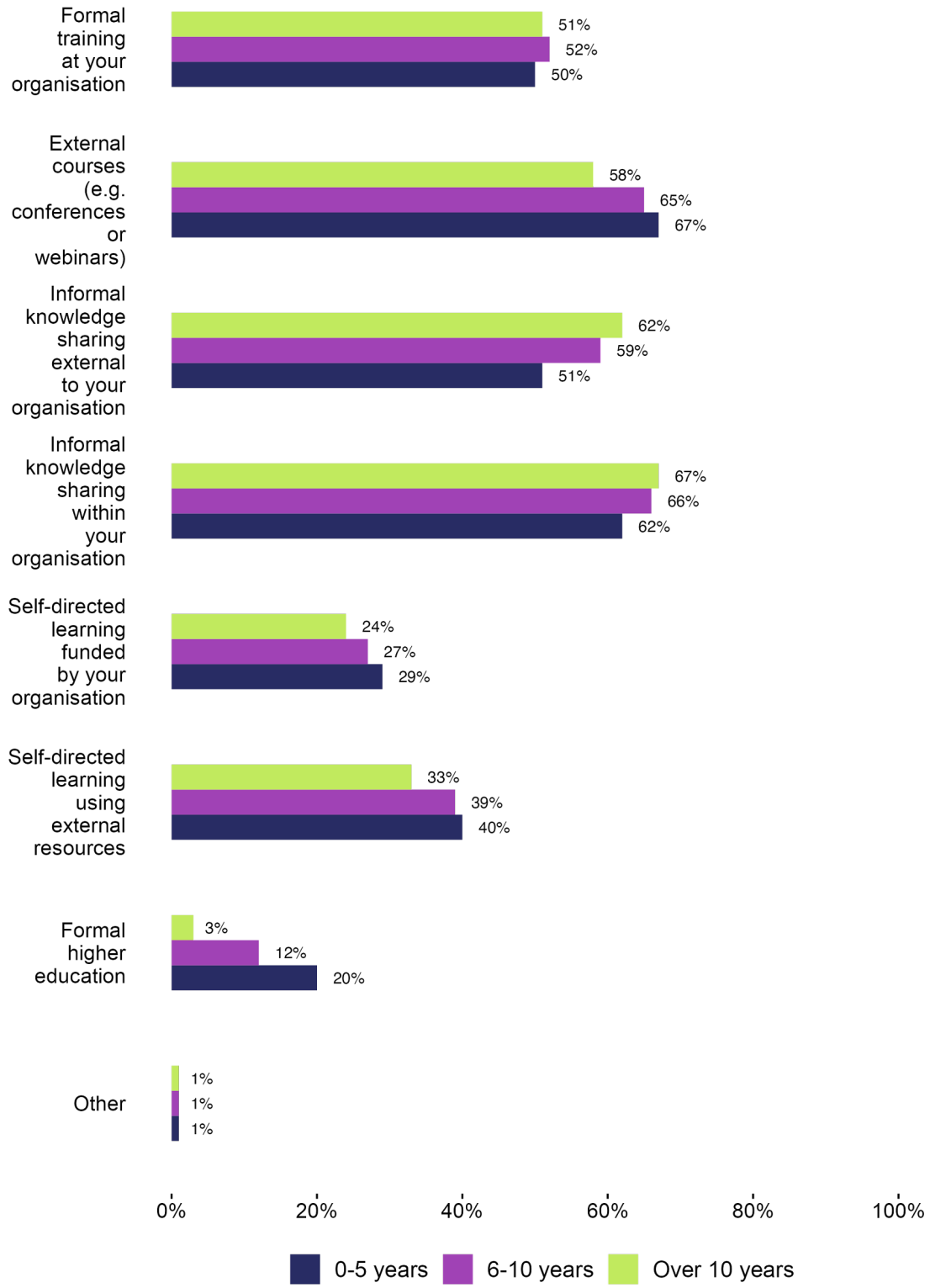
- external courses (58% 0-5 years, 65% 6-10 years, 67% over 10 years)
- self-directed learning using external resources (33% 0-5 years, 39% 6-10 years, 40% over 10 years)
- self-directed learning funded by their organisation (24% 0-5 years, 27% 6-10 years, 29% over 10 years)

In contrast, the following were more popular with those earlier in their career:

- informal knowledge sharing external to their organisation (62% 0-5 years, 59% 6-10 years, 51% over 10 years)
- informal knowledge sharing within their organisation (67% 0-5 years, 66% 6-10 years, 62% over 10 years)

Full breakdown of recent training across different variables of interest is provided in Appendix A12.

Figure 10.2.3 Recent training by career length



All respondents were asked questions on career length and training (0-5 years n = 1,122; 6-10 years n = 1,709; Over 10 years n = 12,220). Respondents were asked which training or learning and development they had taken part in during the past 12 months and could select multiple responses. See Appendix A12 for a further breakdown of this question by different questions.

10.3 Support for training

Finally, respondents were asked questions related to what could be done to make it easier to access training for the R&I workforce. Overall, the need for reduced workload and financial support to access training was highlighted as the most significant barrier to training across all sectors. While these were common priorities, there were sectoral differences in what respondents perceived as most important for them. For instance, higher educational professionals were particularly focused on reducing workload pressures, while those in other sectors emphasised the need for financial support and mentorship. Additionally, individuals with longer careers and higher educational attainment were more likely to prioritise reducing time pressure over other training support options.

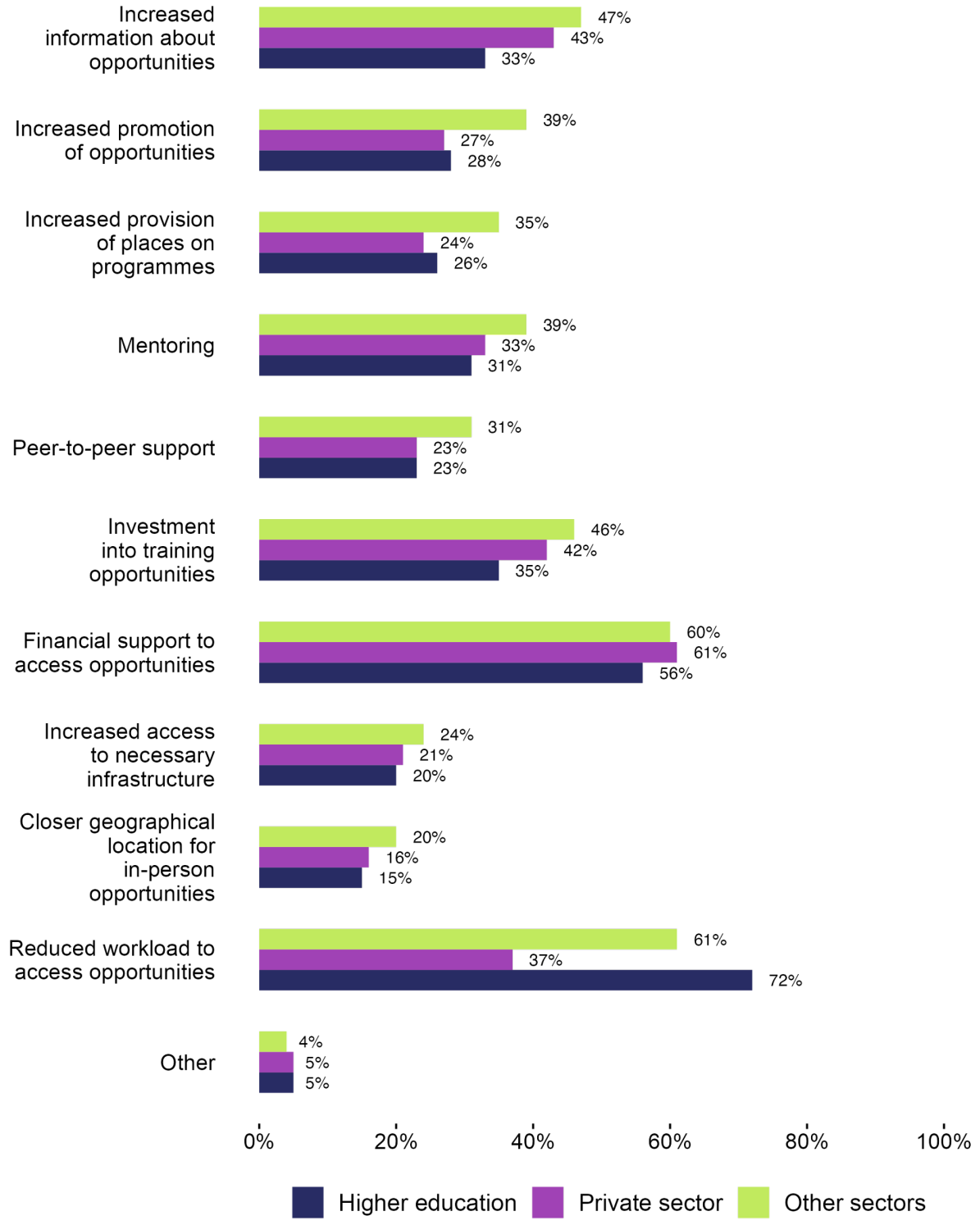
Respondents were asked to think about their R&I career and what could be done to make it easier to access opportunities to train, retrain, or upskill. Overall, the most selected answers were:

- reduced workload or reduced time pressure to access opportunities (64%)
- financial support to access opportunities (57%)
- investment into opportunities (38%)
- increased awareness or information about opportunities (37%)
- mentoring (33%), increased guidance or promotion of opportunities (33%)
- increased provision of opportunities or places on programmes (27%)
- peer-to-peer support (25%)
- increased access to necessary infrastructure (21%)
- and closer geographical location for in-person opportunities (16%)

The results varied by sector (See Figure 10.3.1). Most notably, those in the higher education sector more often said that a reduced workload would make it easier to access opportunities (72%), compared to other sectors (61%), and the private sector (37%), whereas they less often selected:

- increased information about opportunities (33% higher education, 43% private sector, 47% other sectors)
- mentoring (31% higher education, 33% private sector, 39% other sectors)
- investment into training opportunities (35% higher education, 42% private sector, 46% other sectors)
- financial support to access opportunities (56% higher education, 61% private sector, 60% other sectors)
- geographical location for in-person training (15% higher education, 16% private sector, 20% other sectors)

Figure 10.3.1 What could be done to make it easier to access opportunities to train, retrain, or upskill by sector

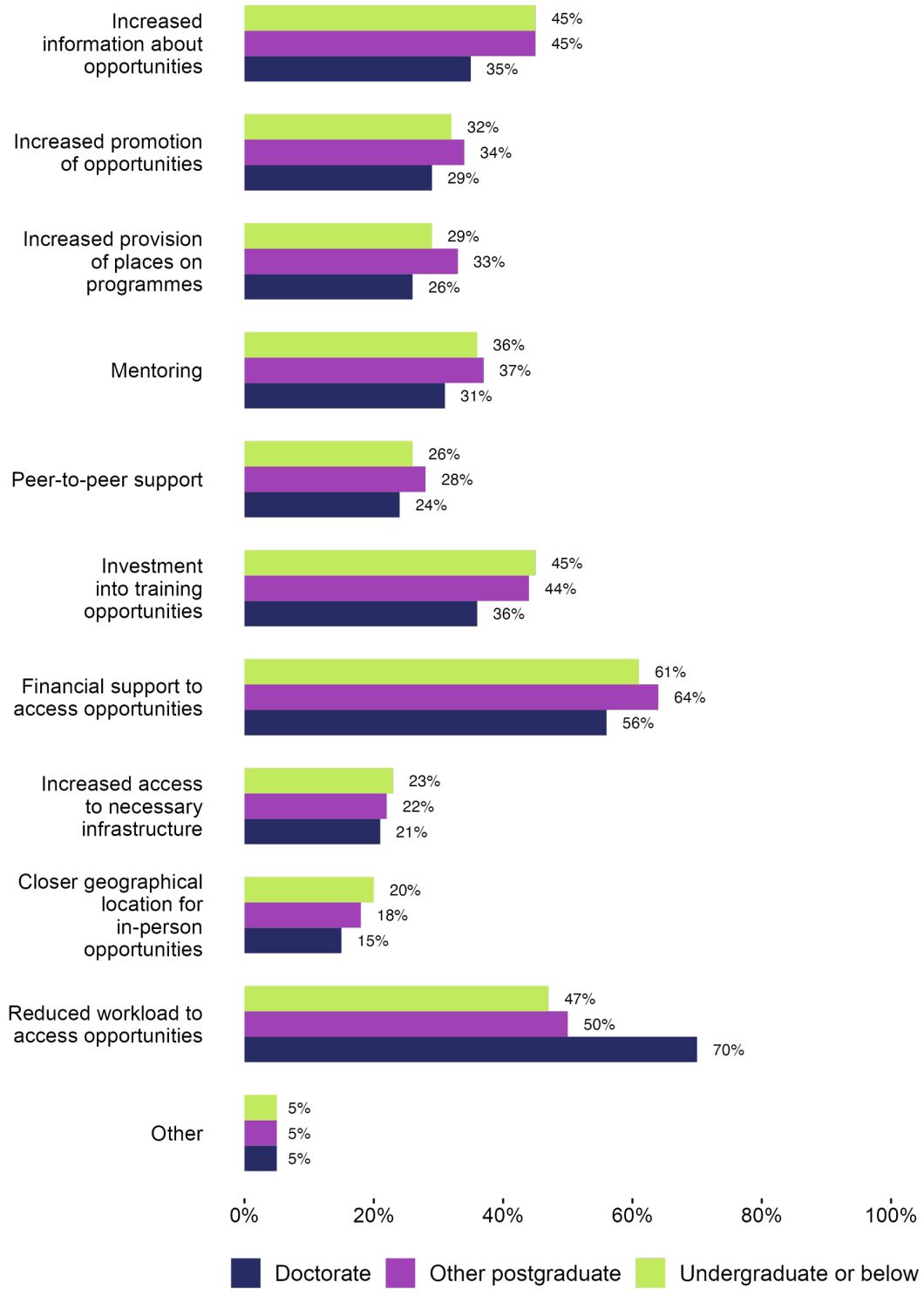


All respondents were asked questions on sector and government support (Higher education n = 9,653; Private sector n = 2,660; Other sectors n = 2,814). Respondents were asked what the government could do to make it easier to access opportunities to train, retrain, or upskill and could select multiple responses. See Appendix A12 for a further breakdown of this question by different sectors.

There were also differences in what could be done to make it easier to access training when looking at the split by highest educational attainment (Figure 10.3.2). Those with a doctorate more often selected a reduced workload or time pressure (70% doctorate vs 50% other postgraduate degree and 47% undergraduate or below), whereas they less often selected all of the other options. This mirrors the findings for higher education, which is expected given that respondents with a doctorate more often worked in higher education.

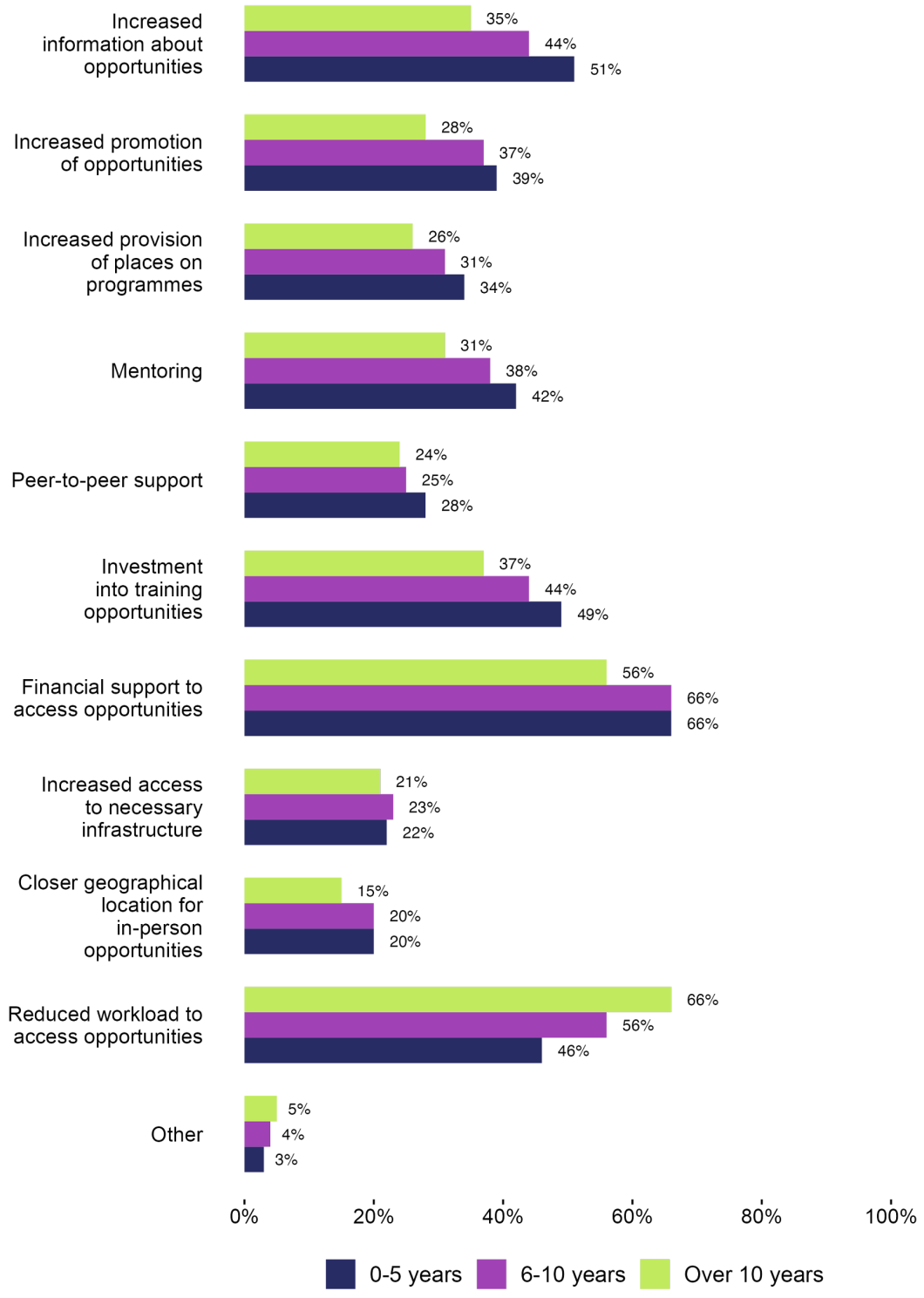
This pattern was also similar when looking at the split by career length (Figure 10.3.3), where those with a longer career more often selected a reduced workload or time pressures (66% over 10 years, 56% 6-10 years, 54% 0-5 years), and less often selected all of the other options. A full breakdown of what could be done to make it easier to access opportunities to train is presented in Appendix A12.

Figure 10.3.2 What government could do to make it easier to access opportunities to train, retrain, or upskill by highest educational attainment



All respondents were asked questions on highest educational attainment and government support (doctorate n = 10,845; Other postgraduate n = 1,969; Undergraduate or below n = 2,205). Respondents were asked what the government could do to make it easier to access opportunities to train, retrain, or upskill and could select multiple responses. See Appendix A12 for a further breakdown of this question by different questions.

Figure 10.3.3 What government could do to make it easier to access opportunities to train, retrain, or upskill by career length



All respondents were asked questions on career length and government support (0-5 years n = 1,122; 6-10 years n = 1,709; Over 10 years n = 12,220). Respondents were asked what the government could do to make it easier to access opportunities to train, retrain, or upskill and could select multiple responses. See Appendix A12 for a further breakdown of this question by different questions.

11. Conclusions

The R&I Workforce Survey 2024 is the second wave of this work, continuing to build a robust dataset about the UK's R&I workforce. The survey achieved a total sample of 15,168, the largest sample of its kind. The sample included individuals from a range of backgrounds, including different sectors and occupations within R&I. It gives policymakers and stakeholders an insight into the UK R&I workforce, covering both innovation and research and development workers. It provides crucial information about activities, skills, careers, enablers, barriers, and impacts of the R&I workforce in the UK, and increases the usefulness of existing datasets including the R&I Workforce Survey 2022. The survey was developed in partnership with R&D funders to ensure its usefulness to a variety of organisations involved in the UK's R&I system.

The survey aimed to capture the full spectrum of the UK R&I workforce to ensure that those included reflect the general stakeholder and policymaker interests beyond the narrower concepts of 'R&D'. However, given the recruitment channels used, the sample is not representative of the whole UK R&I workforce. Certain groups, particularly those who have previously applied for UKRI or Innovate UK funding, were more likely to be included. This resulted in our sample being skewed towards those who work in higher education compared to the UK R&D population, where 64% of our sample worked in higher education, 18% in the private sector, and 19% in other sectors.

Though the 2024 wave alone provides a cross-sectional view of trends in the R&I workforce, combined with the 2022 wave, it provides a longitudinal view of R&I workforce development and changes on key outcomes. These findings can be combined with other available evidence to provide a more comprehensive insight into the choices behind people's career paths, the issues they face, and the opportunities they value.

In conclusion, the 2024 R&I workforce survey adds to the evidence base for understanding the UK's R&I workforce and will allow future waves to build on these insights to ensure policies and initiatives remain responsive to the evolving needs of the sector. Combining this data with the previous wave will provide rich insights into the opportunities, motivators and barriers to research and innovation in the UK.

Appendix

A. Results tables

All appendix tables can be found in the accompanying spreadsheets.

B. Technical Report

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