Research Culture Survey Report 2022

Background

This report highlights findings from the University's first institutional Research Culture Survey (April 2022). It includes an overview of the approach and methods used (including their strengths and weaknesses), along with quantitative and qualitative analysis of the data at institutional level. The accompanying discussion document provides our interpretation of the data. Well over 800 responses were received to an open call to fill in the survey. Whilst this provides key insights into our research culture, it is important to note that the responses received will not have captured everyone's views, especially given that people's experiences vary across the organisation.

The aim of the survey was to understand how research culture is viewed at Newcastle University. The findings capture perceptions and experiences of research culture at the University across a diverse cross-section of our community who are involved in enabling and delivering research and research-led education. Respondents were from different disciplines, career stages, backgrounds and roles, including Postgraduate Research students, Academic and Professional Services colleagues. The insights provided by respondents have illuminated some of the challenges we face as a community and importantly, where we can improve.

It is clear from many other surveys and reports from across the sector that there is a range of outstanding and pressing issues facing UK research culture (*Wellcome Trust: What researchers think about the culture they work in (2020), ARMA Research Culture Survey (2020), Postgraduate Research Student Survey (PRES 2020)*, *The Royal Society: The research and technical workforce in the UK (2021), Research culture: A Technician Lens (2022)*). The survey aimed to find out if and how these issues play out in our own institutional context, to tackle them as effectively as possible. Since we asked people to comment and suggest ideas for change, it's not surprising that we received a lot of negative comments and heard about various areas where people would like to see improvements. These chime loudly with results from across the sector, as well as other feedback we have received through iterative consultation. We have heard these messages and want to improve. We also want to build on the positive reflections we received, and work with our community to develop their ideas for change.

The findings in this report, along with the many invaluable 'practical steps' provided by the respondents, have been used in the creation of our Research Culture Action Plan; the initial framework toward improving Newcastle University's research culture for students and colleagues. The insights and challenges recorded in this survey will continue to inform actions, and we will continue the dialogue and remain open to the essential feedback from our research community.

Summary of Initial Findings

Introduction

The survey statements were structured around four key attributes identified by members of the University's research community as crucial to drive a positive research culture and which are aligned to and build on our University Values and Guiding Principles: collaboration and collegiality, freedom to grow and explore, fairness and inclusion, and openness and integrity. More information about these key attributes, along with the University's vision and commitment to build Research Culture, can be found in 'Research Culture at Newcastle University: The Road Ahead' published in October 2021. An additional survey question asked about the impacts of the Covid-19 pandemic on research culture, and the responses to this question are analysed separately. Respondents were also asked for three words that they thought captured the existing research culture, and three words to describe what they would want that research culture to be.

Methodology

The survey was live between 30th March 2022 and 29th April 2022, and was hosted by the third-party online survey platform Qualtrics. A link to participate in the survey was circulated widely across the organisation, including via university-wide mailing lists for colleagues and postgraduate students, posting on internal websites, and sharing through events. The survey consisted of close-ended statements with fixed answer options (on a 5-point Likert scale, with the option not to answer if the statement didn't feel applicable), and open-text questions which allowed participants to comment further and expand on their answers, or suggest practical steps that the University could take to have a positive impact on research culture. It took approximately 10-20 minutes to complete.

Respondents

In total, 841 respondents completed the survey (only complete responses from the research community were included in the analysis). These included: 132 postgraduate research (PGR) students; 453 academic colleagues (140 on Research-only (R-only) contracts and are typically Research Associates and Fellows, 285 on Teaching and Research (T&R) Academic contracts, and 28 on Teaching and Scholarship or (T&S) Academic contracts); and 157 Professional Services colleagues (63 were in an Administrative role, 17 held Operational roles, and 77 were Technical specialists and Technicians). In addition, 10 respondents self-described as they felt their role wasn't captured, 29 preferred not to identify their role, and 60 did not respond.

Respondents came from a range of units across the institution. There was a fairly even split of respondents across the three Faculties (243 from FMS, 216 from HaSS, and 205 from SAgE), with a further 29 from Central Services (33 preferred not to say, and 115 didn't mention which area of the University they were from).

A summary breakdown of respondents by demographic data (including protected characteristics) can be found in Appendix 1.

Analysis and Presentation

The responses from the close-ended Likert scale statements were counted and quantified and were analysed by job family using frequency and percentage analyses on Excel spreadsheets. The open-ended (open text) responses were thematically analysed by job family with consideration of how responses could vary by protected and other marginalised characteristics such as gender, race, sexuality, age, disability, class and caring responsibilities (as brought up by the participants). The

open text responses were analysed through a process of manual indexing (coding, labelling and sorting) to form an overarching framework of themes and sub-themes.

The report is organised according to each block of statements included for the four attributes of a positive research culture. We provide summary quantitative data and highlight noteworthy differences across statements and between roles. Qualitative findings have been used to supplement these data and identify key areas for discussion. Representative quotes, received from members of our research community, have been used throughout the text to provide additional context to the quantitative findings. Where given, the quotes state the role, gender, ethnicity and contract type of the respondent, missing information indicates the respondent chose not to provide this information. Open text responses on the impact of Covid-19 on research culture were analysed and presented separately. Word clouds were made from the three words provided by respondents to describe current and future research culture.

Graphs capture the Likert scale responses (on the five-point scale from strongly agree to strongly disagree); responses that were not applicable or were left blank were omitted from the analysis. Across all graphs, percentages less than 5% are not reported (due to limitations on space), and responses from groups where there were fewer than 10 respondents have been omitted.

Differences in responses and experiences between different constituent groups in our research community were evident, and we explored those between people with different roles (Postgraduate students, Academic and Professional Services colleagues) as part of our overall analysis to ensure that these different voices are heard at this early stage.

Strengths and limitations

This was the first University-wide survey focussed on research culture open to all colleagues and postgraduate students. Whilst other internal surveys conducted over the last few years have had a degree of overlap and have included some similar questions (e.g. NU Voice – Pulse Survey 2019, Race Equality Survey 2022, Postgraduate Research Experience Survey 2021, Careers in Research Online Survey 2019), they don't provide a single or collective snapshot of all aspects of a positive research culture for the whole community. Therefore, this survey had value in capturing a diverse range of perspectives on research culture that can be compared across different groups, and can also be used as a benchmark to measure future improvements.

The survey was completed by 841 postgraduate students and colleagues, out of a total of ~2800 postgraduate research students and ~6500 colleagues. We acknowledge that out of these total numbers not everyone would self-identify as a member of the 'research community'. This survey does not capture everyone's views, and not everyone who completed the survey opted to complete the open text boxes (range of respondents choosing to complete open text responses: 123-493). Also, the open call for the survey meant that the sample was self-selecting – people could decide themselves whether or not to complete it. Therefore, the sample is not an unbiased random sample of the University community, which is important to bear in mind when interpreting the data. Although the sample size is relatively small and not fully representative, issues raised strongly resonated with the initial consultation on the Research Culture Roadmap in 2021 (N>450 colleagues and postgraduate students), and the degree of positive responses to some of the questions in this survey map on to that received to similar questions asked in the NU Voice Pulse Survey 2019 (N=2384 colleagues).

The survey specifically aimed to identify current challenges and gather suggestions for where we could improve, as well as uncover best practice that could be shared more widely. Therefore, the

way in which questions were framed within this survey may have led people to focus more on the negative than the positive aspects of research culture in their free text responses. Including written responses in free text boxes has been hugely valuable in adding richness and contextualising some of the emerging themes and issues that would otherwise have remained hidden in the headline quantitative data. They will continue to frame and underpin future actions and conversations with the community.

The aim of this report at this point in time was to provide open and timely feedback to respondents and the wider community about the headline findings and how they are informing the institutional action plan that has been launched. Whilst there was an EDI lens applied to the thematic analysis of the open text responses in this report, there is a need for a full report according to people's protected characteristics. This will be the next step in the analysis of survey data, with the aim of providing a full report by early 2023.

Key Findings

1. Collaboration and Collegiality

A majority of respondents (76%) reported that members of the research community share their expertise when they are asked, suggesting a strong degree of collaboration and collegiality being experienced by many (Figure 1).

"…academics from other disciplines have welcomed me and been most generous with their time and sharing their expertise." [PGR, Woman, White-all UK based or international identities, Part-time]

"With regards to academic colleagues, then there is substantial support and collegiality." [T&R, Man, Any ethnic group not considered (including Arab/ middle-Eastern ethnicities/ Latino/ any other), Full-time]

"I have had no negative interactions or limitations to my ability to collaborate effectively." [Specialist/ Technical, Man, White-all UK based or international identities, Full time]

Over half of respondents (54%) thought that the University promotes a collaborative culture, although open text responses revealed that some participants were uncertain what was meant by the terms "university" and "research community", noting that these words in the survey statements on collaboration and collegiality are too broad and ambiguous. Other participants noted that while they were satisfied with the collaborative culture at a local level, such as with their research groups, colleagues and line managers, they had not experienced the same at an institutional level.

"There is good collaboration at group level (i.e. within the group), but little elsewhere." [T&R, Man, White-all UK based or international identities, Full-time]

"I have been encouraged in my creativity by my line manager not the university…." [R-only, Woman, South and South East Asian/ South and South East Asian British, Full-time]

This can help explain the difference in overall positive scores between these two statements and suggests that more can be done, especially at an institutional level, to promote wider collaboration and collegiality.

Figure 1. Responses to the block of close-ended statements in the section on *Collaboration and Collegiality*
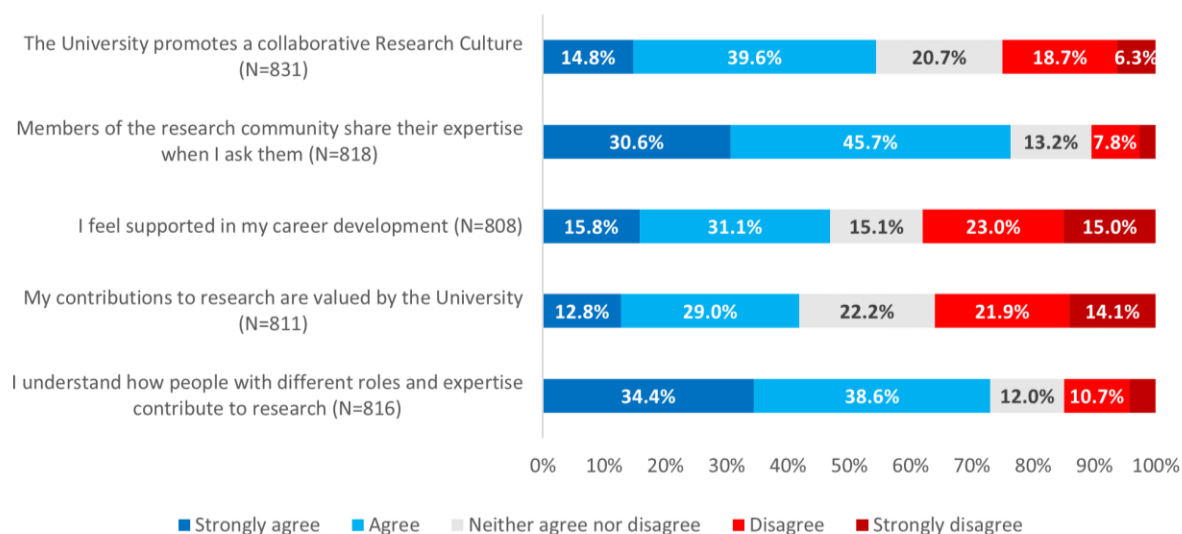
Perceptions varied across job roles. Academic colleagues on Teaching and Research (T&R) and Teaching and Scholarship (T&S) contracts disagreed the most that the University promotes a collaborative research culture (Figure 2). Qualitative findings provide some context, with both groups citing a heavy workload coupled with a significant administrative burden limiting the time available to engage in collaborations and collegial activities. Time is a recurring theme in the survey and further examined below.

Figure 2. Responses to the statement, 'The University promotes a collaborative research culture', by role
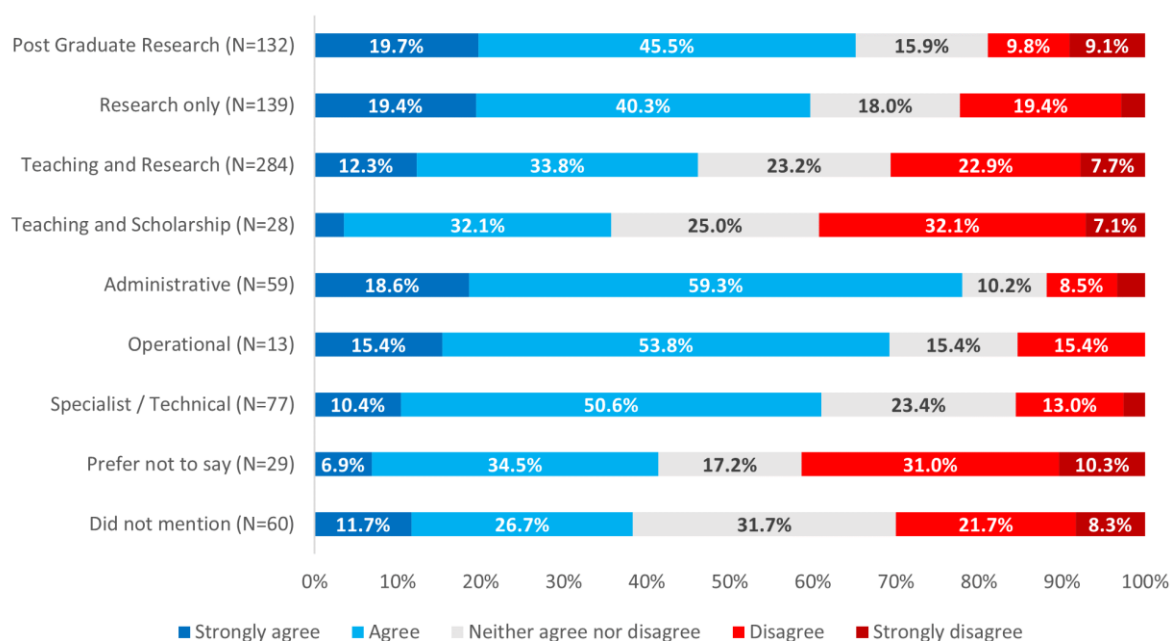
Feeling supported in career development and having one's contributions to research valued by the University are two areas that need improvement (38% and 36% total disagreement respectively; Figure 1). T&S academic colleagues are particularly concerned about how their contributions to research are valued (Figure 3).

"This area is a problem for T and S colleagues - we are not valued, but my department would not function without us." [T&S, Full-time]

Figure 3. Responses to the statement, 'My contributions to research are valued by the University', by role
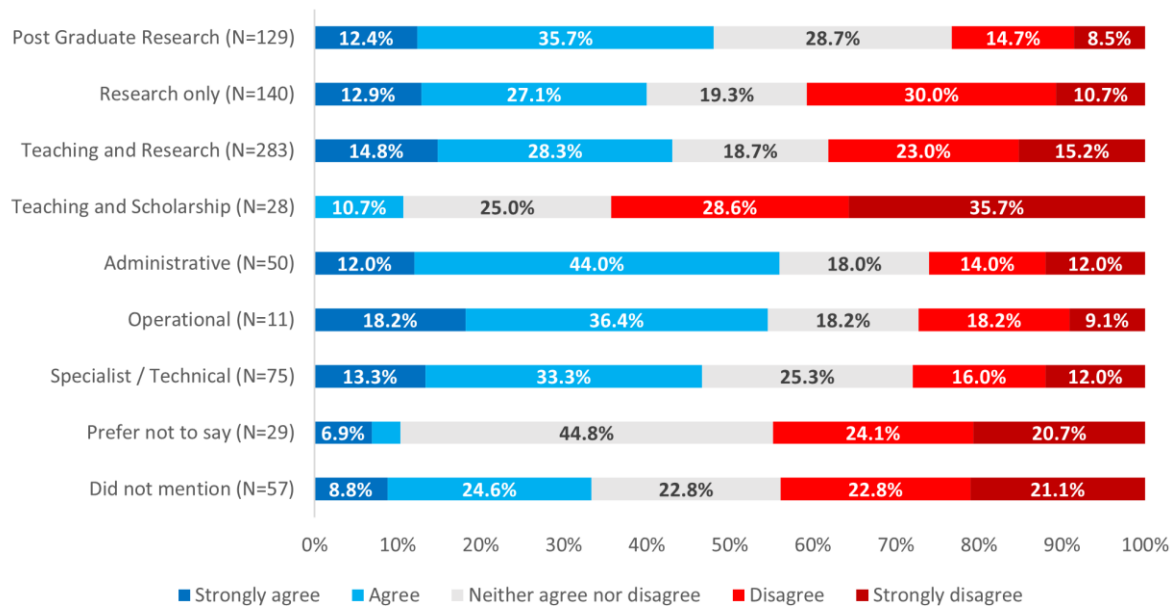
Qualitative analysis of the open text responses provides more context to the quantitative responses around collaboration and collegiality, particularly in relation to the challenges felt and experienced by some members of the research community. Many of these responses highlighted that the lack of time, insufficient value and recognition of work, and limited space and opportunities for sharing of expertise are negatively impacting on collaboration and collegiality.

Time for collaboration and collegiality

A key challenge mentioned by T&R and T&S academic colleagues were their heavy workloads which gave them little to no time and/or 'head space' to engage in collaborative and collegial activities. A recurring theme for T&R and T&S colleagues is how teaching-related and administrative duties, coupled with rigid bureaucratic processes, took time away from research and opportunities to interact and network with colleagues and prospective collaborators. With limited time in their fixed-term contracts, many early career researchers expressed frustration and disappointment over the lack or absence of protected time to develop collaborations to support future career progression.

"One of the absolutely central things that mitigates against collaboration is the excessive quantity of non-essential administrative work and the proliferation of meetings, etc. No one has the spare time for developing cross-disciplinary research, which is very often a slow and iterative process, not a neatly delimited 'work package'."[T&R, Man, White- all UK based or international identities, Full-time]

"Opportunities to collaborate/share ideas are often there in theory but the sheer weight of teaching and admin duties invariably mean that one ends up having to adopt a rather more insular approach in an attempt to make deadlines/keep afloat." [T&R, Man, White- all UK based or international identities, Full-time]

"Staff on research only contracts are committed 100% to research projects even when they are PIs. Time in their workload for collaboration and collegiality would enable them to develop and strengthen the kinds of relationships needed to sustain this kind of working, enable them to engage with, e.g. NUCORES, and other networks and research groupings." [R only, Woman, White- all UK based or international identities, Full-time]

In contrast, a more significant barrier for PS colleagues to collaboration and collegiality is the lack of recognition of their roles and contributions to research, discussed in more detail in the following section below.

Overall, PGRs were satisfied with their day-to-day experiences of research culture, and the support provided by their supervisors and other academics. However, there was dissatisfaction with the lack of active encouragement to collaborate with others and PGRs also spoke about the difficulty in finding assistance and support for their research which they found time-consuming due to bureaucratic processes and a lack of knowledge of who to approach.

"I don't see much professional support within the community. For example, I have to go find collaborators or professional comments myself." [PGR, Woman, East Asian (including China)/ East Asian British/ any other Asian, Full-time]

"I don't feel encourage to do collaborative work as a PhD student. We are more supported to work on our own." [PGR, Woman, White- all UK based or international identities, Full-time]

"Collaboration hasn't been a need in my research for many reasons, but I feel the Uni often promotes it and I wish I will find time utilise it more." [PGR, Man, White- all UK based or international identities, Full-time]

Inadequate recognition and valuing of roles and contributions

Some respondents from all groups expressed concern that their contributions were not sufficiently recognised or valued. This concern was clear amongst Professional Service colleagues in open text responses, where participants felt less valued than, and by, academics. There was a sense that Professional Services colleagues were seen as 'inferior', with 'less important' contributions, and whose ideas and roles in research were downplayed, dismissed or overlooked.

"A greater awareness, advertisement and recognition of the individuals in technical roles who contribute daily to the smooth running of many research practices yet are unheard of by many research groups both staff and student." [Specialist/ Technical, Man, white- all UK based or international identities, Full-time]

"...academic contributions are more highly prized than PS contributions." [Administrative, Woman, White- all UK based or international identities, Full-time]

"...the academics I work for / with see those additional professional support and technical roles as inferior, troublesome and to be challenged and disregarded at all points. The university may value these skills, but the bulk of the academic community I work with do not." [Specialist/ Technical, Full-time]

For T&R and R-only participants, contributions perceived to be not valued or recognised by the University included: hidden work; indirect contributions to outputs; efforts to reduce EDI barriers; mentoring; and research beyond team projects. In addition, some raised the pensions dispute as a contributing factor to feeling undervalued. Some also mentioned the 'narrowness' of what is valued in research, such as only research that attracts large grants, or contributions made by Principal Investigators in team projects, which leaves people feeling that they are not making valuable

contributions. T&S colleagues talked about being seen as teachers rather than researchers, whose works such as in pedagogy and practice-based learning carried little research value.

"There are grey zones when you contribute to a collective project and whoever runs it (often in administrative capacity, based on seniority) seems to claim the entire project's credit in the name of the organiser. This could lead to 'falsification' or 'misinformation' where those academic experts who actually did offer real expertise or did the work are NOT properly credited - the 'event' organiser seems to increase his/her own profile on this topic/research area and put the works under individual research portfolios." [R-only, Woman, Any ethnic group not considered (including Arab/ middle-Eastern ethnicities/ Latino/ any other), Full-time]

"I think the focus on inter/multi-disciplinary research is great but there needs to be greater recognition of the fact that this is not as easy in every discipline and disciplinary excellence (an essential for good interdisciplinary work) also needs to be celebrated. It's also not easy for ECRs to publish interdisciplinary work (at a stage when they might care more about being recognised in their own fields) but I don't hear this being discussed much." [T&R, Woman, Full-time]

"...move away from metrics such as REF and reward development work, collaboration and mentoring." [T&R, Woman, White- all UK based or international identities, Full-time]

"There is almost no recognition that people spend most of their time keeping the place running and such contributions are hidden or silent in work planning. The only real thing that appears important at the moment is grant income. If you have lots you are given plenty of support. If you have none the support is absent. It is not a particularly collegiate environment." [T&R, Man, White- all UK based or international identities, Full-time]

Some PGRs noted not feeling as valued as colleagues, and that their contributions to research were underappreciated. Consistent with the T&R, T&S and R-only groups, there is a belief that contributions which do not fit with the Research Excellence Framework (REF) priorities and the institution's push for inter-disciplinary work within certain core research themes, carried little value. Where respondents felt contributions were valued, research groups and line managers were specifically highlighted.

"There is still a fairly sharp divide between staff and PGRs in terms of perceived research value." [PGR, Woman, Full-time]

"...there has been little evidence that our contribution to the university's research culture is appreciated or valued in any way." [PGR, Woman, White- all UK based or international identities, Full-time]

"...it feels like some contributions are valued more than others (i.e., contributions that fit the REF). Non-REF compatible contributions might be just as worthwhile, but have a different (i.e., primarily societal) impact that is not always recognised" [PGR, Woman, White-all UK based or international identities, Full-time]

"I feel there is no recognition for the work undertaken as an RA except by my line manager." [R-only, Woman, White- all UK based or international identities, Full-time]

Sharing of expertise and information gathering

The quantitative data indicates 76% of respondents experienced sharing of expertise among members of the research community, with positive experiences shared in the open text comments.

"I have had amazing conversations with researchers across different faculties to discuss research. These conversations have been sincerely open-minded and generous in terms of advice, discussions, feedbacks and collaboration." [R-only, Woman, Any ethnic group not considered (including Arab/ middle-Eastern ethnicities/ Latino/ any other), Full-time]

"Researchers I interact with are open to my expertise and willingly provide their expertise to enhance their research and the research of those around them." [Specialist/ Technical, Man, White- all UK based or international identities, Full-time]

However, the qualitative data also highlights some barriers and challenges to sharing expertise. Time and an already heavy workload limited collaborative and collegial sharing. Barriers were particularly significant for those on short-term contracts within the R-only group. These colleagues faced intensive pressure to complete research (where they played supportive roles) to tight deadlines, leaving little room to share or seek expertise beyond their immediate research project. Discouragement from sharing expertise with close colleagues (in order to build one's own niche area), research cliques, siloed research groups and colleagues being protective of their ideas were reported as further complicating sharing expertise among the R-only community.

"Although I do overall get support from academic colleagues, there is still a culture of not sharing knowledge as it may disadvantage career progression. This remains an issue across academia. […] With an ever increasing workload, it becomes more difficult to find the time to help colleagues." [T&R, Woman, White-all UK based or international identities, Full-time]

"There are a lot of great and collaborative people in the university, but there are also lots of silos and in my experience a lot of people who are not only unwilling to share expertise, but actively obstructive to the idea of others using methods they also use." [R-only, Man, White-all UK based or international identities, Full-time]

"As a Professional Services staff member, I find that the response from academic colleagues varies when I ask them to share their expertise - they are frequently 'too busy' to engage." [Administrative, Woman, White-all UK based or international identities, Full-time]

Across all groups (particularly prevalent in comments from PGRs, R-only, T&R and Professional Services colleagues), it was felt that there was a lack of communication in the University about opportunities for collaboration. This included a lack of information about relevant networking events and ways to find out the interests and skills of people across the research community, especially across groups, sites, and disciplines. A lack of opportunities was highlighted across job families in the terms of not having or knowing about seminars, workshops, in-person and informal meetings, where two-way sharing of expertise could occur. These factors placed additional time burden on finding relevant expertise and routes for collaboration and were deterrents to collaboration and collegiality.

"To increase the visibility of collaborative networks within the University and especially for early and mid-career researchers." [R-only, Woman, White- all UK based or international identities, Full-time]

"…more of an awareness of what other people do and opportunity to link up with others. I don't always know where the expertise lies." [T&S, Woman, White- all UK based or international identities, Full-time]

"More open communications to build links between researchers. I'm having to do this myself, having started recently it's quite difficult to approach people to find out what they're doing and if we can work together." [T&R, Woman, White- all UK based or international identities, Full-time]

In addition, whilst not universal, a lack of recognition led to individuals especially from T&S, Operational and Specialist and Technical groups to comment that they were not given sufficient opportunities to share their expertise.

"As a technician, whenever I have an opportunity to do more than support research, e.g. contribute to a research project myself, examine a PhD thesis ….. I am told 'this is not within your remit as a technician. I feel my contributions are not recognised, both in terms of esteem and financially…" [Specialist/Technical, Woman, White- all UK based or international identities, Part-time]

"I'm PGT and I never seem to be taken seriously when I come forward with research ideas or opportunities. Our students are producing some excellent dissertations, we are supporting them to get their work published and we are doing some really innovative online teaching. However, I've been told that our research activities will not have sufficient impact and I'm actively discouraged" [T&S, Woman, White- all UK based or international identities, Part-time]

2. Freedom to Grow and Explore

Around two-thirds of respondents reported that creativity was welcomed in the research environment (66%), however, time to do so is clearly a barrier, with only around one-third (34%) agreeing that they had quality time to be creative and develop their ideas (Figure 4).

Figure 4. Responses to the block of close-ended statements in the section on *Freedom to Grow and Explore*
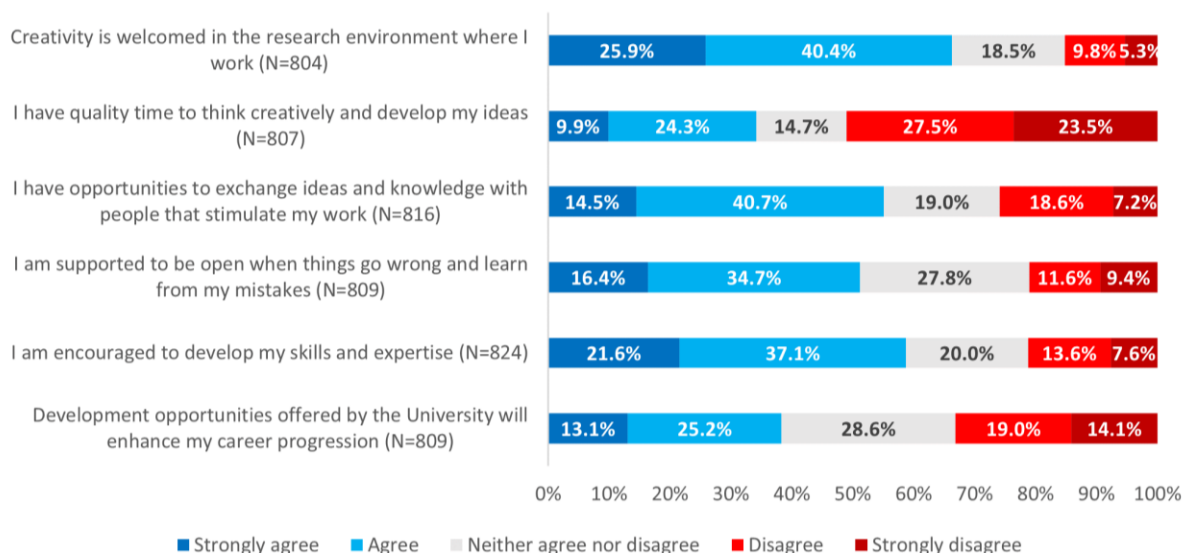
When explored by role, academic colleagues on T&R and particularly on T&S contracts disagreed more strongly than other groups that they had quality time to be creative (Figure 5). The only group which showed substantially greater positive than negative responses was PGRs, with 66% agreeing to some degree that they have quality time to think creatively and develop their ideas.

Figure 5. Responses to the statement, 'I have quality time to think creatively and develop my ideas', by role
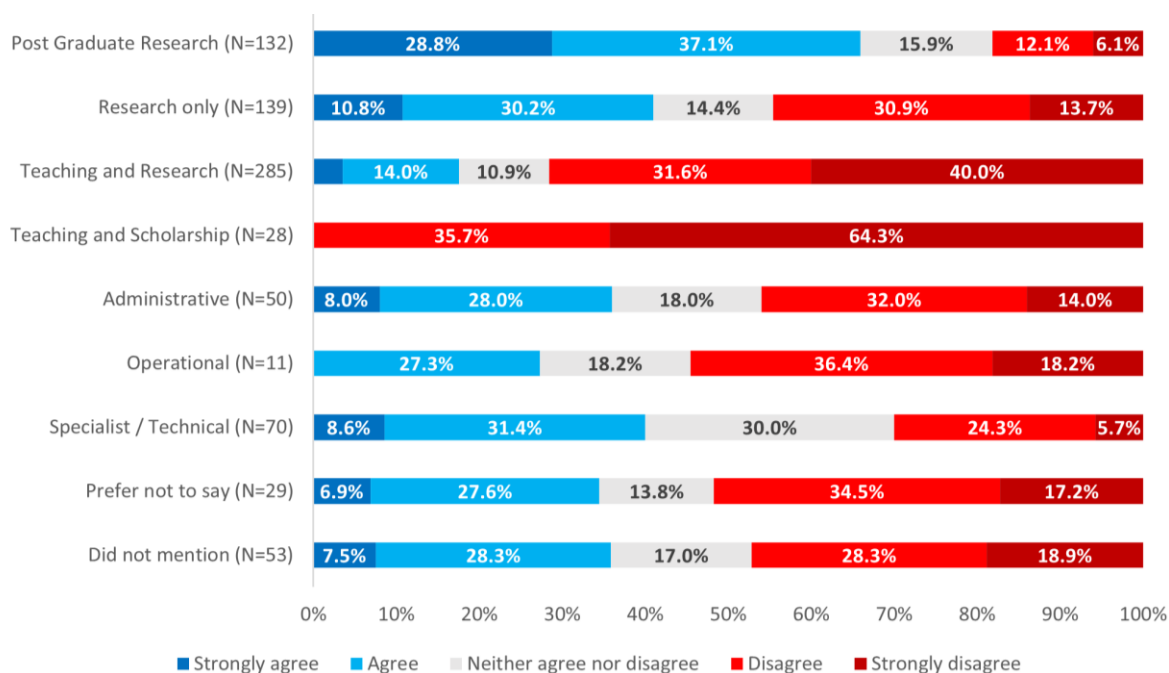
Whilst the majority of participants received encouragement to develop their skills and expertise (59%), only 38% agreed that the development opportunities offered by the University will enhance their career progression (Figure 4). It should also be noted that 29% of all respondents neither agreed nor disagreed that such opportunities will help them to progress their careers. This suggests a sense of uncertainty over how marketable skills and expertise could be developed, and a need to focus on training and career development opportunities associated with research.

Across roles, it is notable that T&S and T&R academics had fewer positive and more negative responses than other groups about the development opportunities on offer (Figure 6). This pattern, of fewer positive responses, was repeated across many survey statements from these two groups (particularly T&S colleagues, see Appendix 2 for a full breakdown), and suggests that additional attention should be paid to their workload, support, and career development needs. For colleagues in the Operational group, the percentages of combined positive and combined negative responses was almost equal, suggesting highly divided opinions on the benefits of development opportunities offered by the University.

Figure 6. Responses to the statement, 'Development opportunities offered by the University will enhance my career progression' by role
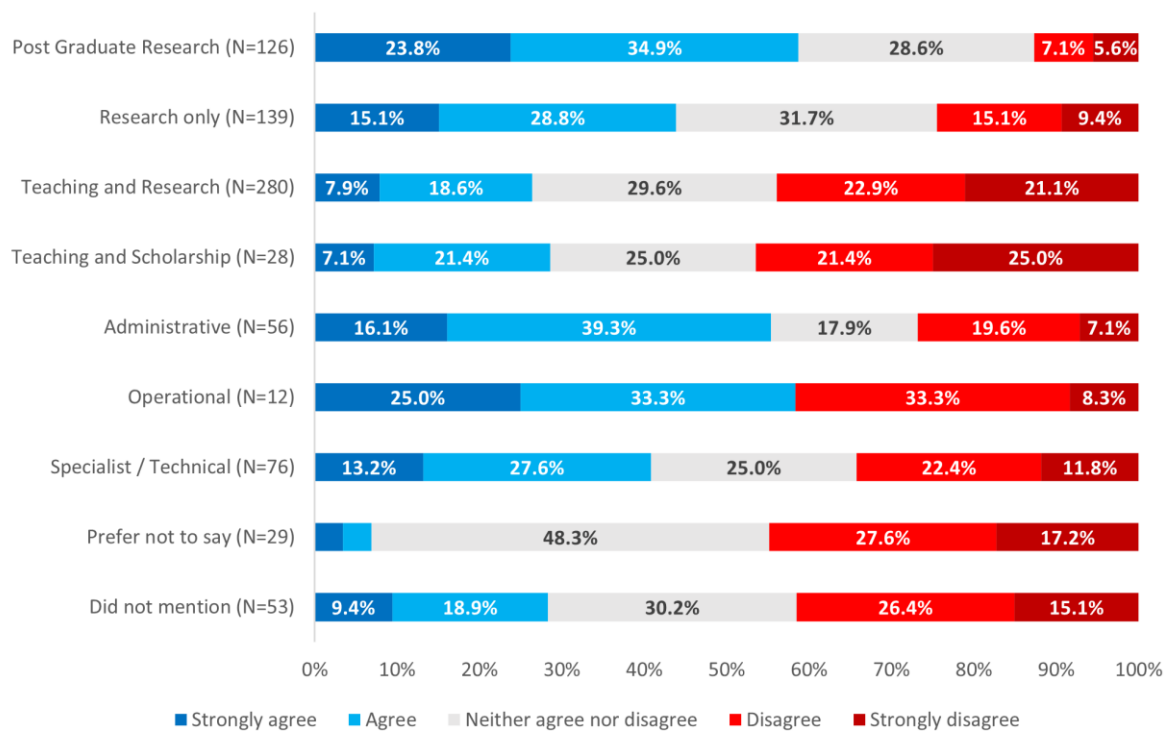
In almost every statement from the 'Freedom to Grow and Explore' section, the highest level of agreement came from PGRs compared to colleagues. For example, 81% of PGRs strongly agreed or agreed that they were encouraged to develop their skills and expertise, compared to 46% of T&R and 25% of T&S colleagues. Similarly, 75% of PGRs strongly agreed or agreed that they were supported when things go wrong and learn from their mistakes (see Appendix 2) in contrast to 33% of T&R and 41% T&S academic colleagues. Groups in Professional Services and R-only colleagues reported intermediate levels of agreement for these statements.

Again, several themes emerged from the qualitative analysis of the open text comments that help better understand the quantitative results and differences among groups. Open text comments provide context for these findings, revealing time and support for creativity as well as opportunities for career development and progression as crucial aspects for growth.

Time and support for creativity

Time emerged again as a key theme, particularly in participants' comments about creativity. Whilst some people recognised that creativity was valued and felt they had freedom to grow, many across groups (particularly PGR, R-only, T&R and T&S colleagues) emphasised the lack of time to think creatively and to develop their ideas, due to the time-intensive demands of their immediate work tasks.

I think research creativity is valued" [T&R, Man, White- all UK based or international identities, Full-time]

"There is no time at all to pursue creative ideas. This all needs to be done in your own time which is not always possible (due to research and academic pressures)" [R-only, Woman, White- all UK based or international identities, Part-time]

"You are funded for a 3 year PhD despite knowing that most people go over this time, mainly because life gets in the way... You are not given any time to think about anything. Yet the expectation is that you do." [PGR, Woman, White- all UK based or international identities, Full time]

There was a general consensus that time for creativity should be protected and included within working hours but that not all line managers were supportive of time taken during work or studies to explore creative opportunities, especially if the ideas being developed were deemed too bold and risky. The belief among some participants is that creativity is only encouraged in their spare time and that engagement with it required taking personal initiative. This makes it especially difficult for early career researchers on short-term contracts who lacked access to funding to develop their own interests beyond institutional priority areas and the time to do so within contracted hours.

"Any time to think creatively is time that is out-with my research contract. It's unpaid work, and only possible because I am not a full-time employee." [R-only, Woman, East Asian (including China)/ East Asian British/ any other Asian, Part-time]

"We lack the most important resource: quality time, to think creatively and explore ideas. For colleagues who take on roles like directors of X in the school, the time spend on these roles are not properly accounted with teaching and research and most often the research is done when there are spare times after work and during the weekend." [T&R, Full-time]

"Short term funding and contracts make it difficult for ECR to develop their own research." [R only, Woman, white- all UK based or international identities, Full-time]

"There needs to be a new approach to thinking about the academic calendar and how to make real space in the year for academics to have time to properly engage with their research. In [my Faculty] the teaching and administrative loads are now so high proportionately that there is very little time in the academic calendar which is not taken up with that." [T&R, Woman, White- all UK based or international identities, Full-time]

Career development opportunities and progression

Across all groups, people felt that their freedom to grow and explore was hampered by the lack of useful development opportunities that would help with their career progression. Whilst there was notable exception, the opinion expressed by many was that the development training provided by the University was too generic and not sufficiently relevant to their specific career needs.

"I think the development opportunities offered by the university are good (in particular, the pgr workshops programme and funding for training courses)" [PGR, Woman, White- all UK based or international identities, Full-time]

"I think the development opportunities offered by the university are probably too generic to really enhance my career progression." [T&R, Man, White- all UK based or international identities, Full-time]

"My line manager and colleagues are very supportive of career development, however I do not feel the university or the institute offers enough tailored support." [R-only, Woman, White-all UK based or international identities, Part-time]

For some it was felt that mandatory attendance in generic training took precious time away from work and this especially affected time-pressed staff with teaching responsibilities (T&S colleagues). T&S colleagues also felt that their development was not a priority for the University which 'seems to pay more attention to other academic colleagues with more research-focussed roles'. The feeling of being side-lined was also prevalent among Administrative, Operational and Technical staff who commented that available development training within the University often felt redundant for their job roles. For those that recognised development opportunities were available, they highlighted that the opportunities were not well communicated and difficult to find.

"I am creating my own development opportunities at a painful cost to my own work-life balance. These are not possible within the day job of a lecturer (in my post at least) on a T&S contract." [T&S, Woman, White- all UK based or international identities, Full time]

"Development opportunities are often redundant for PS colleagues." [Administrative, Woman, White-all UK based or international identities, Full-time]

"I do not receive any useful information about the opportunities at the university and the faculty for me. I have to search and find out everything on my own....." [PGR, Woman, White- all UK based or international identities, Full time]

In addition, a number of respondents mentioned the ability to participate in training and events was dependent on how supportive line managers and supervisors were, and the funding available to access fee-paying opportunities beyond the University.

"The freedom to grow and explore is very much dependent upon the line manager lottery. If you have a good line manager, then they should encourage these types of behaviour. However, I have seen many times where line managers (both PS and non-PS) have stifled their staff, not been innovative in their thinking and not encouraged professional development." [Administrative, Woman, White- all UK based or international identities, Full-time]

"Often you are assigned a manager who has no/little interest in your development." [T&R]

"Whilst there are opportunities to develop, they are at the behest of line management approval." [Administrative, Woman, White- all UK based or international identities, Full-time]

Although peoples' experiences varied, and some shared their positive experiences, the open text responses reflected a perceived lack of institutional interest in colleagues' career progression.

"The professional development and support I have received so far has been excellent." [R-only, Woman, White-all UK based or international identities, Full-time]

"Encouragement, support and development stop outside of my department... the university or [Faculty/Academic Unit] are not particularly proactive in support or really a direct for PS staff development." [Specialist/Technical, Woman, White- all UK based or international identities, Full-time]

"In my role there is no room or time for development. I'm largely unsupported by line managers and left to seek out help from other colleagues who also seem to struggle with the lack of processes and structure." [Administrative]

Many R-only and T&R colleagues' responses highlighted the difficulties of holding short-term and casualised contracts such as having to change research projects and subject areas or leave the University when contracts end. The precarity of their jobs undermined any sense of continuity and certainty in career progression, and confidence that the University is invested in helping them grow.

"Removing precarious contracts for researchers. Often they're juggling numerous projects at small % fte and have no time for personal career development, they burn out and leave academia." [R-only, White- all UK based or international identities, Full-time]

"We felt that our leaders will not be supporting a staff's development unless they will yield something from it." [T&S, Full-time]

"Currently the only opportunities for career development seem to be leaving the university. As I'm tied to the North-East with caring commitments, this means I could well end up leaving academia to have options to progress." [R-only, Woman, White- all UK based or international identities, Full time]

Professional Services colleagues believe that there are limited opportunities for promotion unless a staff member leaves, with development and progression opportunities perceived of being scarce for those who have reached the highest salary point scale.

"....Unless jobs come up/people leave then there is no opportunity for promotion. This distinct difference between PS and Academic colleagues is somewhat degrading in that it fails to recognise our contributions to the University and its research environment. It would help to encourage staff to stay at the institution for the duration of their career." [Professional Service, Woman, White- all UK based or international identities, Full-time]

Fairness and Inclusion

An overwhelming majority of respondents (94%) strongly agree or agree that diversity is important to research and innovation (Figure 7). This extremely positive sentiment was evident across all groups (see Appendix 2). However, only half (50%) of participants fully agreed to feeling included as a member of the research community at Newcastle University (Figure 7). This shows a gap between the value ascribed to diversity and inclusion in research at the individual level, and the ability of institutional policies, practices and culture to deliver an inclusive experience for colleagues and students.

The lowest scoring statement in this section came from only 46% of participants agreeing to some extent that they were confident that any discriminatory or inappropriate behaviour in their research environment would be dealt with effectively. There was some variation across the job groups, with academic T&R and T&S colleagues giving the least positive and most negative answers (Figure 8). Open text responses provided a lot of context to these findings, revealing dissatisfaction and distrust over the handling of complaints within a perceived slow, inefficient and biased system (see detailed discussion below).

Figure 7. Responses to the block of close-ended statements in the section on *Fairness and Inclusion*
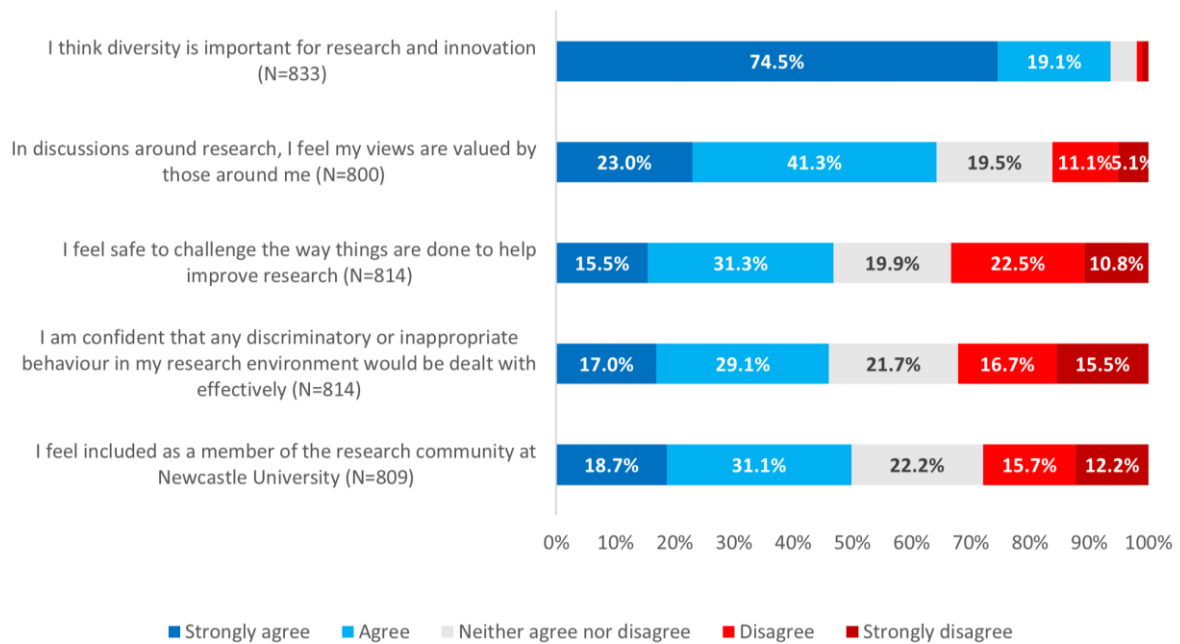
Figure 8. Responses to the statement, 'I am confident that any discriminatory or inappropriate behaviour in my research environment would be dealt with effectively', by role
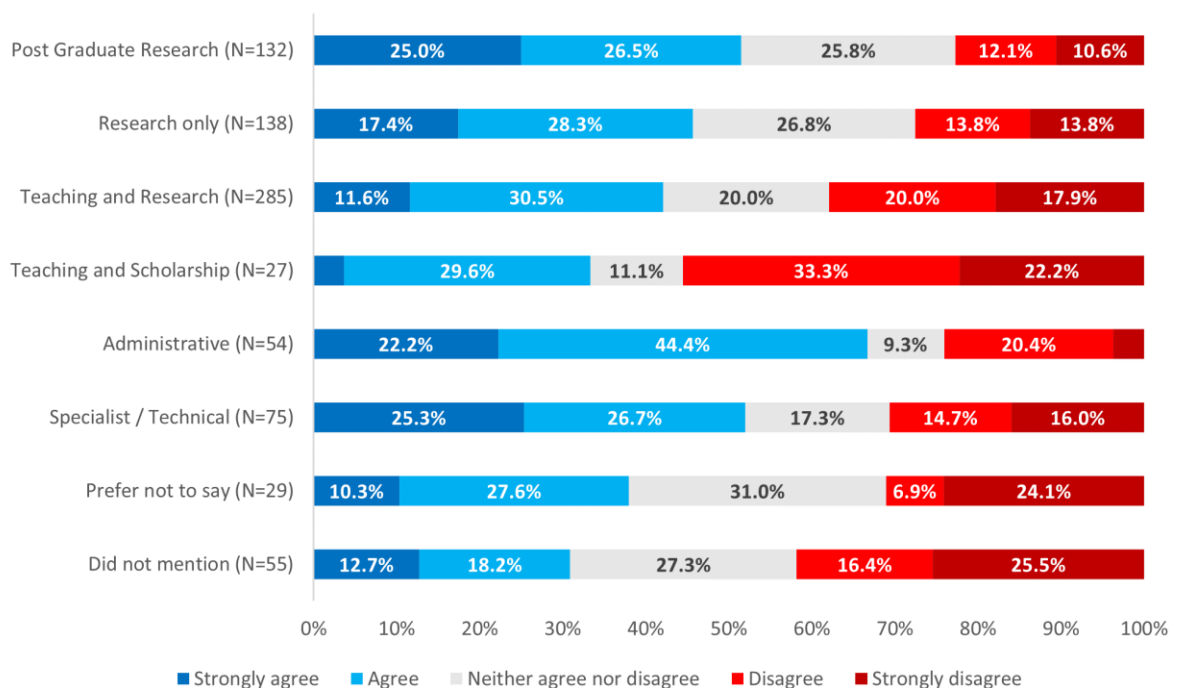
Statements around psychological safety revealed that nearly two-thirds of respondents (64%) thought that their views are valued by people they work with, but just under half (47%) felt safe challenging the ways things are done to improve research. Reduced psychological safety negatively impacts how people work together and perform, and links to some of the themes from the open text comments around tackling inappropriate behaviour and having safe reporting mechanisms.

Inappropriate behaviour

Although not specifically requested, a number of participants especially from the PGR, R-only and T&R groups mentioned that they had experienced or witnessed inappropriate behaviour (N=33), including bullying, discrimination, and prejudice, and in relation to disability, health issues, gender, and race. Where these comments were raised, some respondents felt that instances of inappropriate behaviour were not always handled appropriately, and that they perceived a lack of action was taken, particularly against senior colleagues and including external partners. While a similar sentiment was echoed several times, it was not ubiquitous among respondents

"The university does not have good research culture and the attitudes of the academics are allowed to remain disrespectful, derogatory and at times toxic towards members of the technical team -.....I on a weekly basis either myself or my colleagues experience disrespect from academic colleagues, and I wish to leave the university primarily for this reason - no member of staff should be made to feel like this and until this changes many good members of technical, service and admin staff will leave." [Specialist/ Technical, Full-time]

"I have faced discrimination in [the University]. I have raised this but not addressed. I have experienced mental stress, felt trapped and unable to flourish." [T&R, Woman, South and South East Asian/ South East and South East Asian British, Full-time]

"I feel that inappropriate behaviour is dealt with swiftly and that the behaviour stops." [T&R, Woman, White- all UK based or international identities, Full-time]

"I have seen / know about inappropriate behaviour within our research environment and I know it isn't dealt with properly. Those 'to blame' seem to benefit and progress instead." [R-only, Full time]

Safe space to raise issues

A lack of safe space led to hesitation and lack of confidence among some participants to report inappropriate behaviour such as discrimination (including microaggression) and bullying. Several participants criticised a defensiveness and blame culture they felt prevalent at all levels of the institution which seem to protect rather than punish those they perceive at fault, especially when inappropriate behaviour is shown by senior colleagues. Other participants noted that different parts of the University respond differently to inappropriate behaviour and as such, the handling of this kind of behaviour can be either effective or poor, depending on the context.

"I have had only positive experiences in this area. My supervisor was incredibly quick to take action when I faced inappropriate behaviour which made me feel like I belong and my feelings mattered." [PGR, Woman, South and South East Asian/ South and South East Asian British, Full-time]

"There is little evidence to show that feedback is taken seriously at any level, and is often met with a 'this is how it is and how it will be' attitude. Thus there is little scope to challenge how things are." [T&R, Man, Any ethnic group not considered (including Arab/ middle-Eastern ethnicities/ Latino/ any other), Full time]

"I have found a defensiveness when I raise problems which makes me less likely to take them forward or engage with people in power about it." [R-only, Man, South and South East Asian/ South and South East Asian British, Full-time]

"Whilst predominantly negative, this is a reflection of [my academic unit] and not the wider Faculty where I feel my views are valued, it is safe to challenge the way things are done, discrimination would be dealt with and I feel included." [T&R, Man, White-all UK based or international identities, Full time]

"In my role within [my unit] I feel somewhat that I can challenge the way things are done or discriminatory behaviour as I would be supported by my line manager and senior management team." [Operational, Woman, White- all UK based or international identities, Full-time]

Understanding, support and commitment for EDI issues

Along with high agreement that diversity is important to research and innovation (Figure 7), there were positive comments on the University's commitment towards diversity and inclusion, including feeling supported and welcomed at unit level.

"I believe that diversity and inclusion are key values in the research environment, and I can feel them evident in the university atmosphere." [PGR, Man, White- all UK based or international identities, Full-time]

"I have always found [my academic unit] to be fair and inclusive." [R-only, Man, South and South East Asian/ South and South East Asian British, Full-time]

"I come from [outside the UK] and have always felt welcome at Newcastle University" [R-only, Man, White-all UK based or international identities, Full-time]

Whilst there was acknowledgment that the University is heading in the right direction in creating a diverse and inclusive environment, some people also thought that more can be done to raise awareness, provide support for and commit to EDI issues. These issues included: making clear best practices in EDI; improving minority student and staff representation and engaging with diverse groups and points of view in decision-making; considering disabilities, neurodiversity, class and caring responsibilities in EDI strategies; and minimising research cliques biased towards males and senior staff.

"As a neurodivergent member of staff I feel extremely unsafe to express my ideas or opinions: it's really important for me to feel that I have the freedom to make mistakes without being censured....a lot of the work that is being done on EDI seems to be establishing new invisible boundaries that I live in constant fear of misunderstanding/overstepping." [T&R]

"[The university] have previously avoided [unit] wide acknowledgement of issues around EDI that have occurred, so as to avoid panic etc." [T&R, Woman, White- all UK based or international identities, Full-time]

... More diversity amongst the seniors as currently there is a lack of representation of those from minoritised backgrounds. I'm unsure how we get an exciting a thriving and diverse community of researchers without diversity being visible in senior roles". [Professional Services, Woman, South and South East Asian/ South and South East Asian British, Full-time]

"Only when we have diversity in our leadership will we overcome discrimination or bullying. It's mostly ignorance, fear and insecurity of those with 'power', who when challenged, set such negative chain reactions in place." [T&R, Woman, White- all UK based or international identities, Full-time]

"I feel included and valued personally, because I'm a successful senior academic. However, there is a large problem of sexism in my [academic unit] where the research of (certain) males is amplified, they are given research opportunities, etc. which helps their career progression." [T&R, Woman, White-all UK based or international identities, Full time]

Openness and Integrity

Overall, there was greater agreement than in other sections with statements in the Openness and Integrity section of the survey (Figure 9).

A large majority of the participants (88%) indicated that they understood the benefits of open research practices (Figure 9). Just over half of the respondents agreed when asked if the University promotes the benefits of open research or valued open research practices. The responses to these statements also showed a high level of ambiguity, with more than a third of respondents neither agreeing nor disagreeing with either statement. This suggests that while most people felt aware of

the benefits of open research practices, they feel less confident that they are being sufficiently promoted or valued within the institution.

Figure 9. Responses to the block of close-ended statements in the section on *Openness and Integrity*
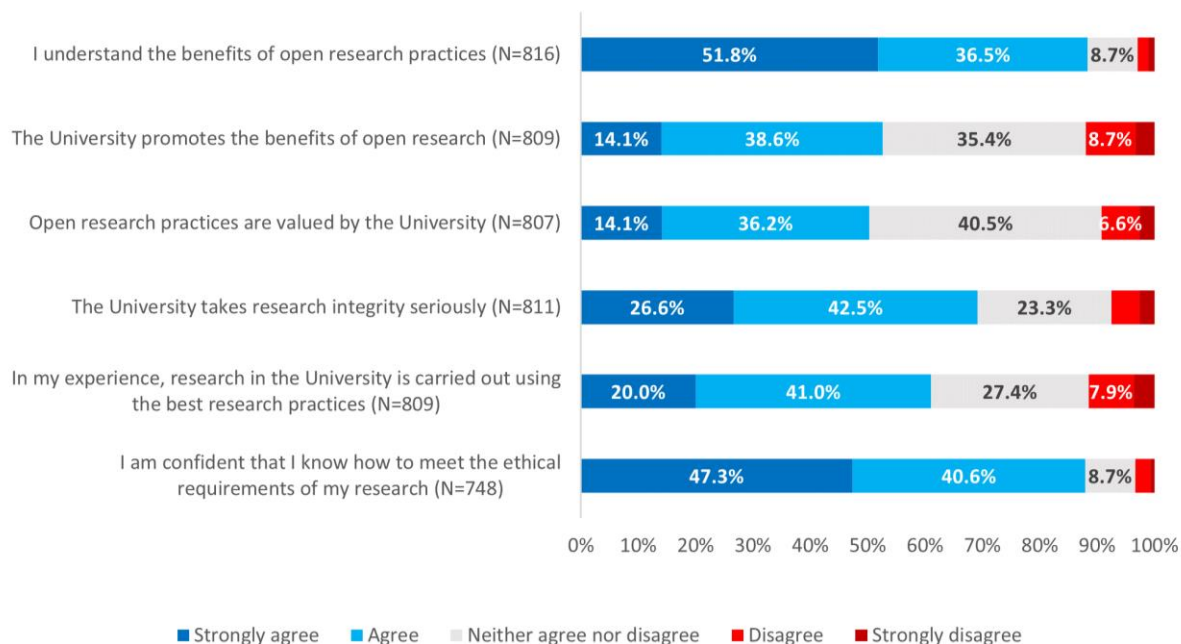
A large proportion of respondents seemed confident that they knew how to meet the ethical requirements of their research (88%). This level of agreement dropped slightly when stating whether the University takes research integrity seriously (70%), and whether, in the respondent's experience, the research is carried out using the best research practices (61%). This suggests that more can be done to improve messaging and support for research integrity and good research practice.

Support for and communication of open research and research integrity

While many participants believed that openness and integrity mattered to the University, some did not fully understand what these open research practices entail, how the University supports open research and the mechanisms required to ensure research integrity. Responses which questioned the meaning of 'open research' and 'research integrity' were most common among PGRs. Most criticism was noted in reference to a lack of communication of open research opportunities and the limited training and support in areas such as ethics, open data and open access publishing.

"I feel not enough has been done on stressing the importance of research integrity in PGR training. Sometimes there are controversial issues, e.g., conduct related to PGRs or supervisors, I don't know where to find such information and support." [PGR, did not disclose gender, did not disclose ethnicity, did not disclose hours]

There were comments among the PGR, R-only and T&R groups that open research is not possible in some instances such as when limited by funders, when dealing with sensitive topics and where specific methods and methodologies are not suited for the full sharing of data. A lack of a safe space to raise issues, coupled with limited time for rigour in research amidst institutional pressure to publish and win grants complicated the upholding of research integrity.

"It is not clear to me how the university supports open research. There are a lot of mandates from funders, but most of the burden of this falls on the academics shoulders." [T&R, Man, White-all UK based or international identities, Full-time]

"Some of the practices of 'open research' are not relevant to all research methods and topics. For example, to share qualitative interview transcripts at the end of a PhD is not same as sharing a lab book. I […] was required to share my qualitative data at the end of my PhD (as it was treated in the same way as quantitative data) and I did not feel comfortable doing this." [R-only, Woman, White- all UK based or international identities, Full-time]

"The papers I have been involved with are all Open Access and Newcastle University Library helped with money to pay for this, that was great." [R-only, Man, White-all UK based or international identities, Full-time]

"In my area of researcher, where deadlines are ever stricter and demands are greater, we now need to adopt 'pragmatic' practices which mean cutting corners. I (and other staff) are committed to ensuring research is robust, but it is hard to do this when you are asked for far more than you can give in a short space of time. The result is research that is not as rigorous as it could be." [R-only, Woman, White-all UK based or international identities, Full-time]

"Ethical integrity in Research should be promoted as the number one priority for Newcastle Research. Too much emphasis is made on grant income and publication impact which will undoubtedly undermine research integrity and promoted a 'winning' culture at the cost of research integrity. I have seen a steady shift in research bias towards getting the 'winning' results at all costs during my 20 years working in research in Newcastle." [Operational Part-time]

Impact of the Covid-19 pandemic

Across all groups, with the exception of Operational Professional Service colleagues, individuals provided free text comments that mentioned the ease of interaction and communication as the result of online meetings, informal meet-ups and attending online events such as seminars and conferences, as a result of the pandemic. A hybrid or fully remote working capacity especially benefitted participants who were located outside of Newcastle and had caring responsibilities. Virtual or less physical modes of working increased productivity, saving valuable time previously taken for travel and enabling better work-life balance around the physical location of work and when it fits the individual needs of colleagues and students.

"Positives are being able to connect over Teams and Zooms with distant colleagues and researchers where distance no longer matters." [R-only, Woman, Any ethnic group not considered (including Arab/ middle Eastern ethnicities. Latino/ any other), Full time]

"The ability to work from home with blended working has increased productivity, quality of life, equality for parents/carers and personal wellbeing." [R-only, Woman, White-all UK based or international identities, Full-time]

However, there were also some understandable negatives caused by the pandemic that impacted the way the research community could work, and are able to work going forward. Working flexibly or entirely from home limited chance interactions useful for sharing, networking and collaboration opportunities. The quality of interactions suffered in some instances due to the lack of engagement from others in online meetings and events. Prolonged time away from the campus caused isolation and loneliness among some participants, and people spoke of the difficulty in building and maintaining relationships with colleagues, particularly if recently arrived.

"Lockdown isolated people, reduced the quality of interaction, and caused demoralisation and fragmentation. There has also been an unfortunate tendency to resort to Zoom meetings too easily, when a physical meeting was possible with a little bit of effort." [R-only, Man, South and South East Asian/ South and South East Asian British, Full time]

"I have benefitted from more flexible working meaning I can be at home for my children more. However, I do not think the university does enough to make sure teams are kept linked in with a more personal touch and
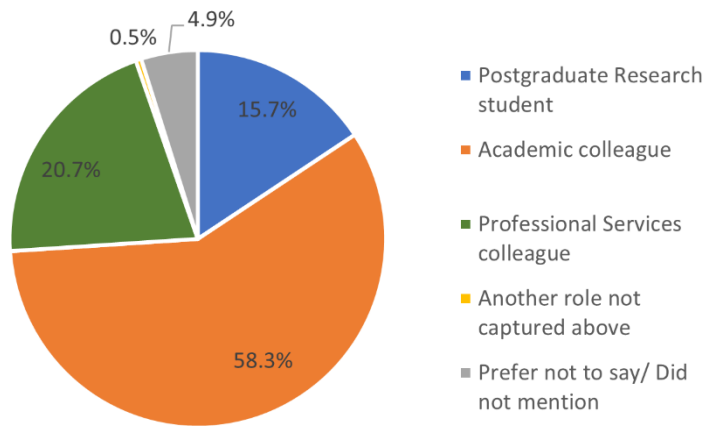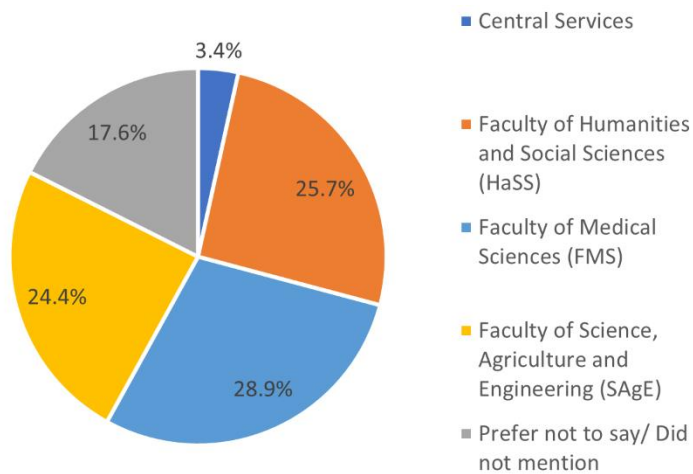
working at home can sometimes be quite isolating. Managers should make sure they speak to their staff regularly and check in with them on an informal basis enabling issues to be raised easily as developing this relationship improves approachability and enables people to talk more easily." [Professional Services, Woman, White- all UK based or international identities, Part-time]

With a switch to online teaching, teaching was perceived as being prioritised over research, resulting in a loss of momentum in research or a complete halt to research for some T&R and T&S colleagues, which was then slow to re

start. Many T&R participants commented on an administrative burden such as delayed administrative support, reduced efficiency in purchasing and recruitment, and more unequal distribution of administrative and teaching duties.

"It stopped all research on human volunteers. It then took forever to get permission to restart it, as the university/our own institute seemed completely unaware that this type of research was even carried out." [R-only, Woman, White- all UK based or international identities, Full time]

"Many people are exhausted due to the additional teaching burdens associated with the pandemic." [T&R, Man, White- all UK based or international identities, Full-time]

"It has significantly exacerbated the time issue I have already mentioned. Research time has been very seriously impacted for some and some people's research has been entirely stopped for two years which means they are starting again from a much lower base. This is especially for those who have been seriously impacted either by illness or home schooling." [T&R, Woman, White- all UK based or international identities, Full-time]

Words used to describe our current and ideal future research culture

Word clouds were produced from words provided by participants when asked to describe their current (Figure 10) and ideal future (Figure 11) research culture. This reveals again the very different experiences people currently have across the organisation, and reinforces what people would like to see and feel in our future research culture.

Figure 10. Survey respondents were asked to provide 'three words' that they would use to describe the existing Research Culture at Newcastle University. Below are the words provided by two or more respondents, the relative size of the words corresponds to the number of respondents that provided that word. Created in wordart.com

Figure 11. Survey respondents were asked to provide 'three words' that they would use to describe the Research Culture they wanted to see at Newcastle University. Below are the words provided by two or more respondents, the relative size of the words corresponds to the number of respondents that provided that word. Created in wordart.com

Acknowledgements

University Executive Board approved: 4th October 2022

Appendix 1. Demographics of respondents

This section provides the demographics of our population of respondents by personal and protected characteristics.

Figure *0-.1* The proportion of respondents from each role category

Figure *0-.2* The proportion of respondents across Faculties and Central Services

Figure *0-.3* The proportion of respondents who work or study on a full-time or part-time basis
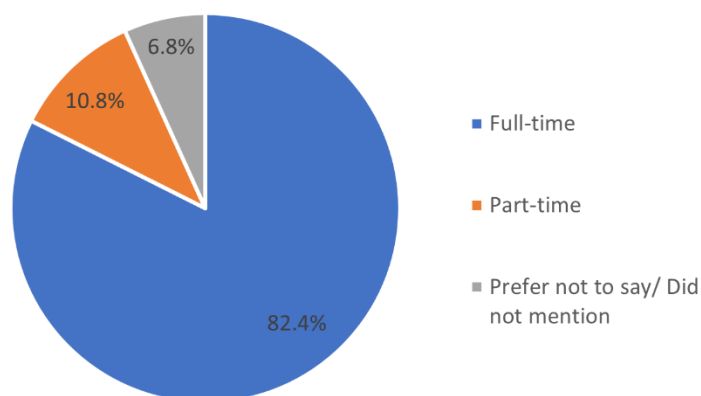
Figure *0-.4* The proportion of PGRs associated with a doctoral training centre or partnership

Yes: 28.8%
No: 53.8%
Not sure: 10.6%
Prefer not to say: 6.8%
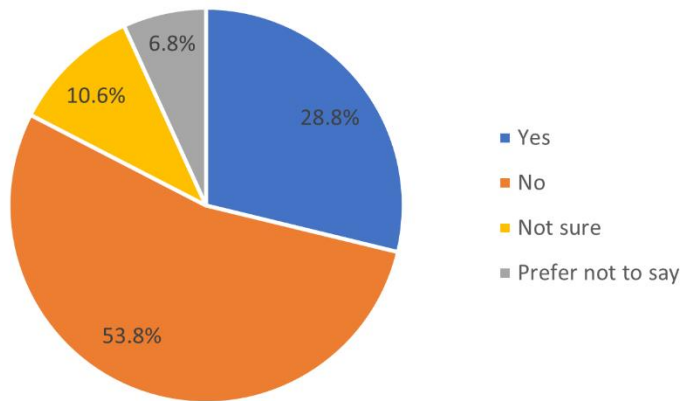
Figure *0-.5* The proportions of academic colleagues on clinical contracts

Yes: 6.3%
No: 85.7%
Prefer not to say/ Did not mention: 8.0%
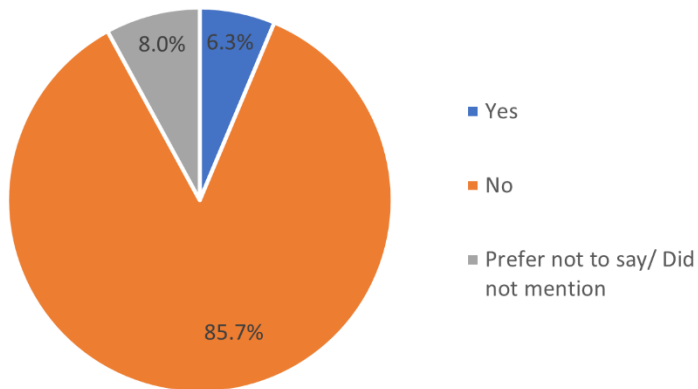
Figure 0-.6 The proportion of respondents on permanent open-ended contracts and fixed-term or open-ended contracts limited by funding

Open ended, often known as permanent: 49.1%
Fixed term or open ended but limited by funding: 22.5%
Not sure: 0.7%
Prefer not to say/ Did not mention: 27.7%
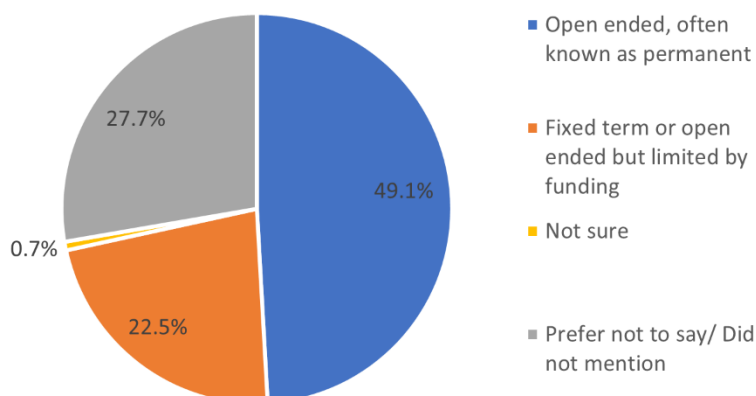
Figure *0-.7* Respondents declaring caring responsibilities

Yes 38.2%
No 52.3%
Prefer not to say/ Did not mention 9.5%
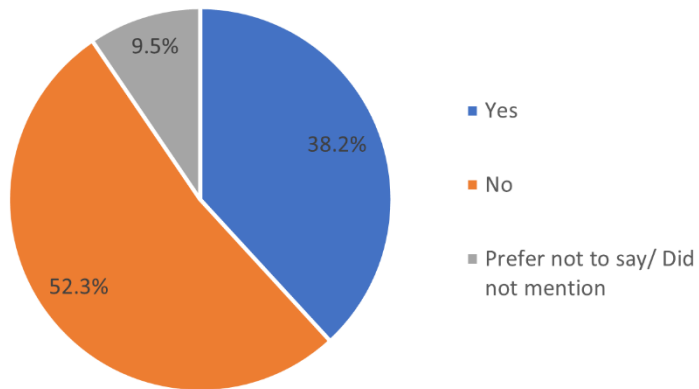
Figure *0-.8* Respondents declaring their disability status

Yes 7.0%
No 83.0%
Prefer not to say/ Did not mention 10.0%
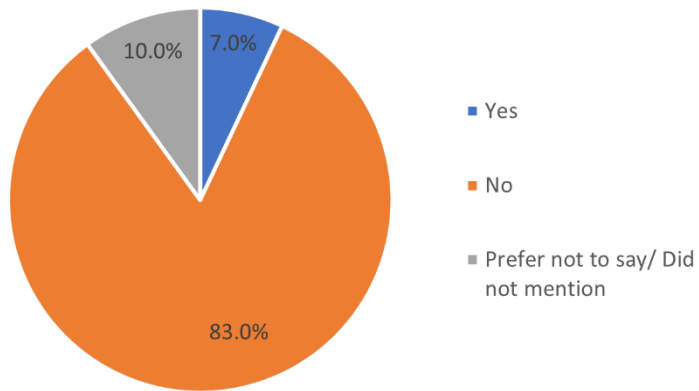
Figure *0-.9* Respondents declaring their sex

Man 35.4%
Woman 49.6%
Non-binary 1.4%
Prefer not to say/ Did not mention 13.6%
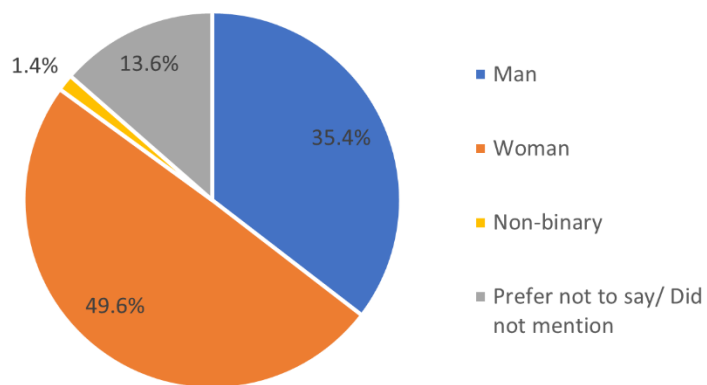
Figure *0-.10* Respondents declaring their sexual orientation

- Heterosexual
- Lesbian, Gay, Bisexual or another sexuality
- Prefer not to say/ Did not mention

20.9%
8.9%
70.2%
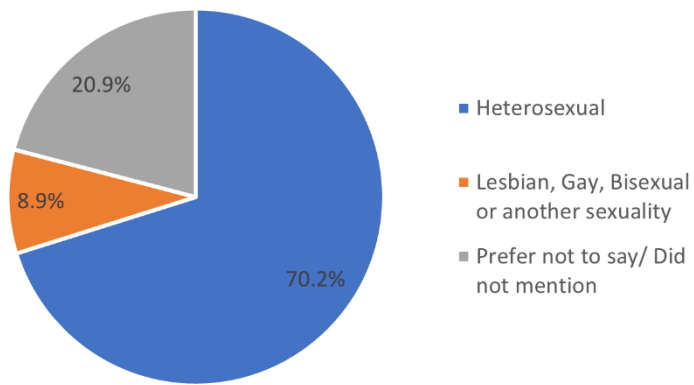
Figure *0-.11* Respondents declaring their ethnicity by majority and minority group

- Majority
- Minority
- Prefer not to say/ Did not mention

17.1%
10.0%
72.9%
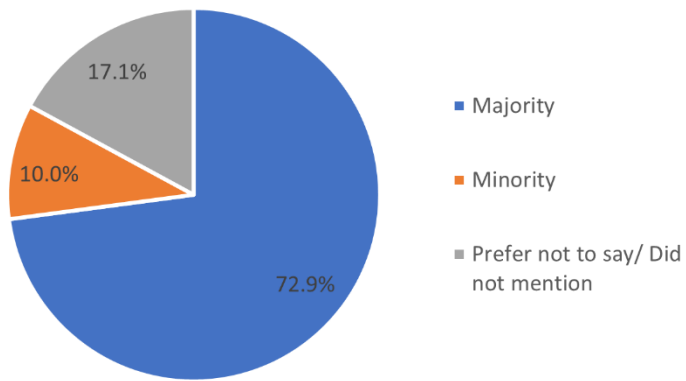
Appendix 2. Quantitative responses from survey questions

Collaboration and Collegiality

Figure 2.1- Response to the statement: *'Members of the research community share their expertise when I ask them'* by role
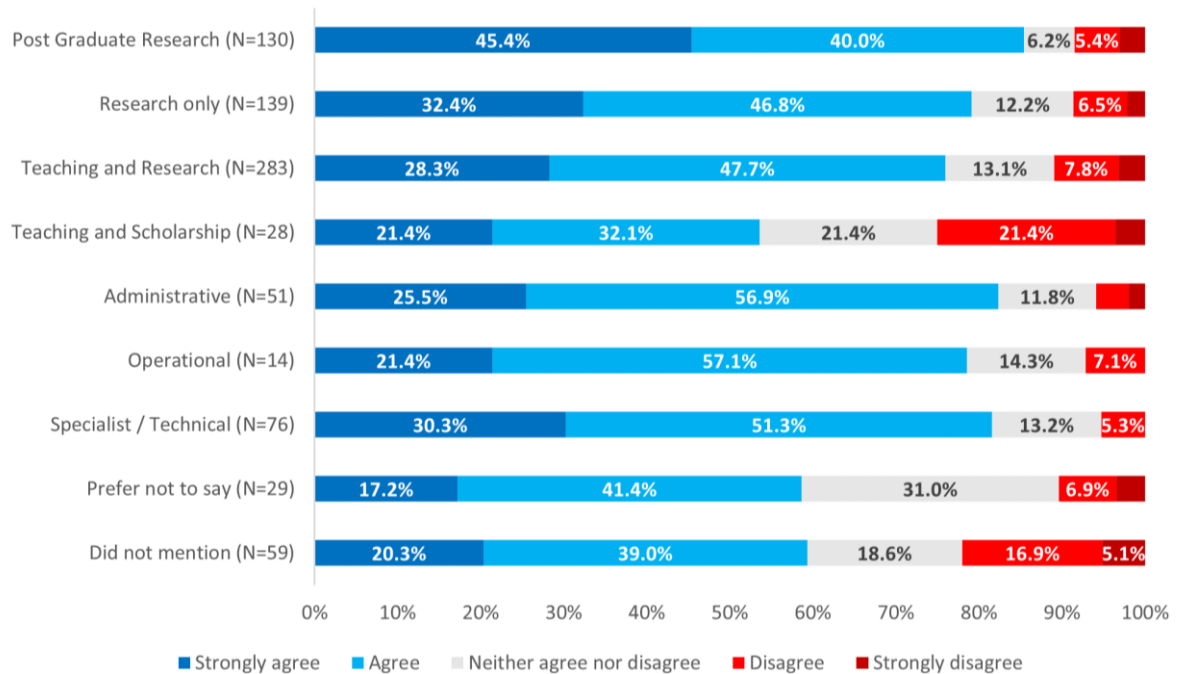
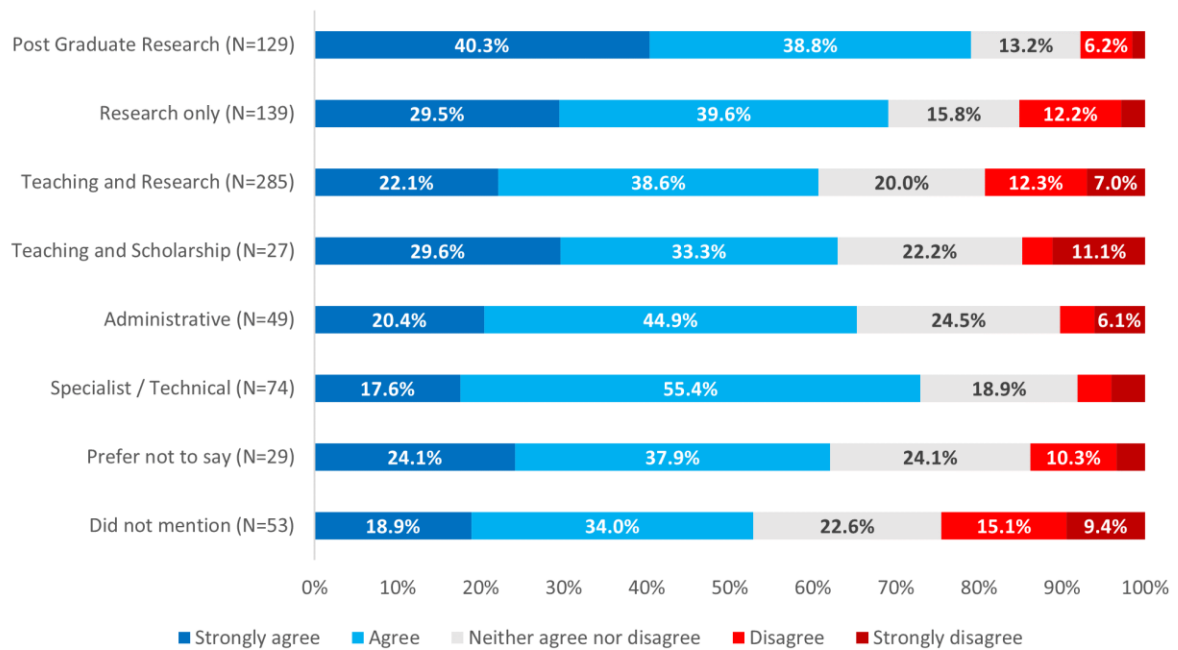**Figure 2.2-*1*** Responses to the statement, *'I feel supported in my career development'*, by role
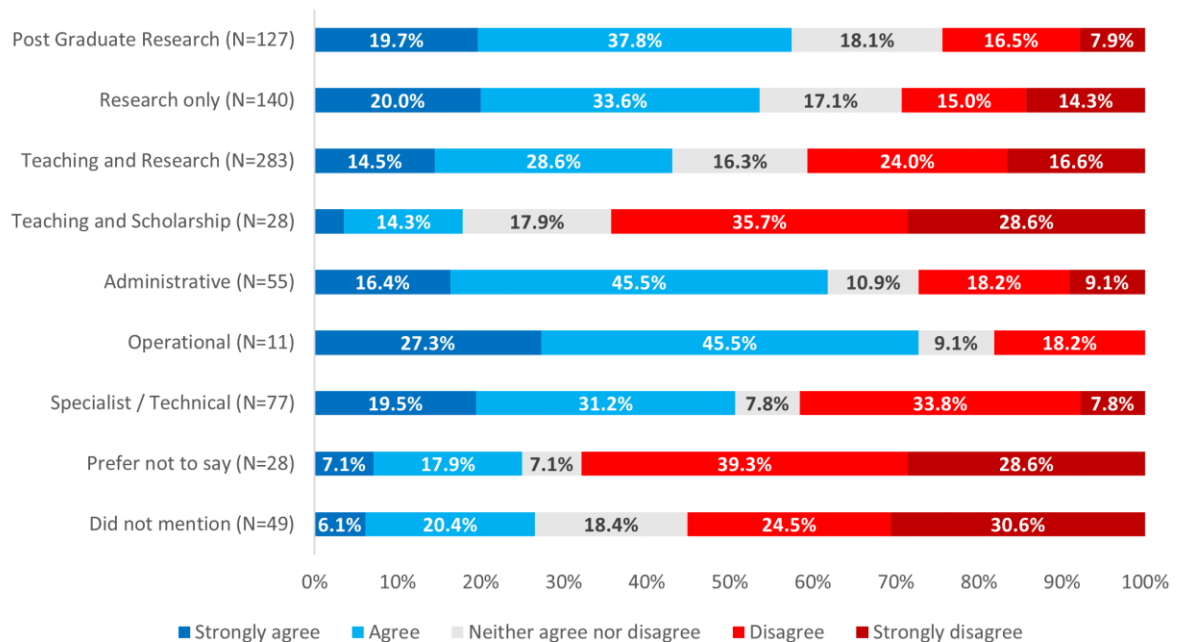
Figure 2.3- Responses to the statement*, 'I understand how people with different roles and expertise contribute to research'* by role
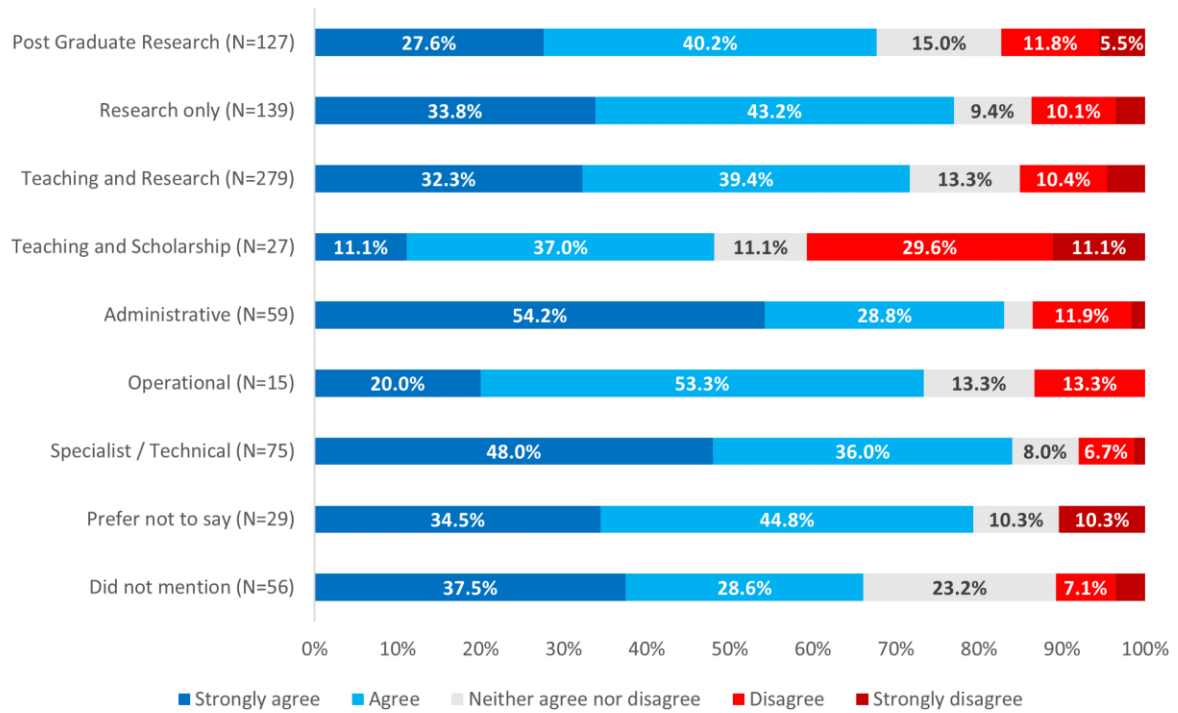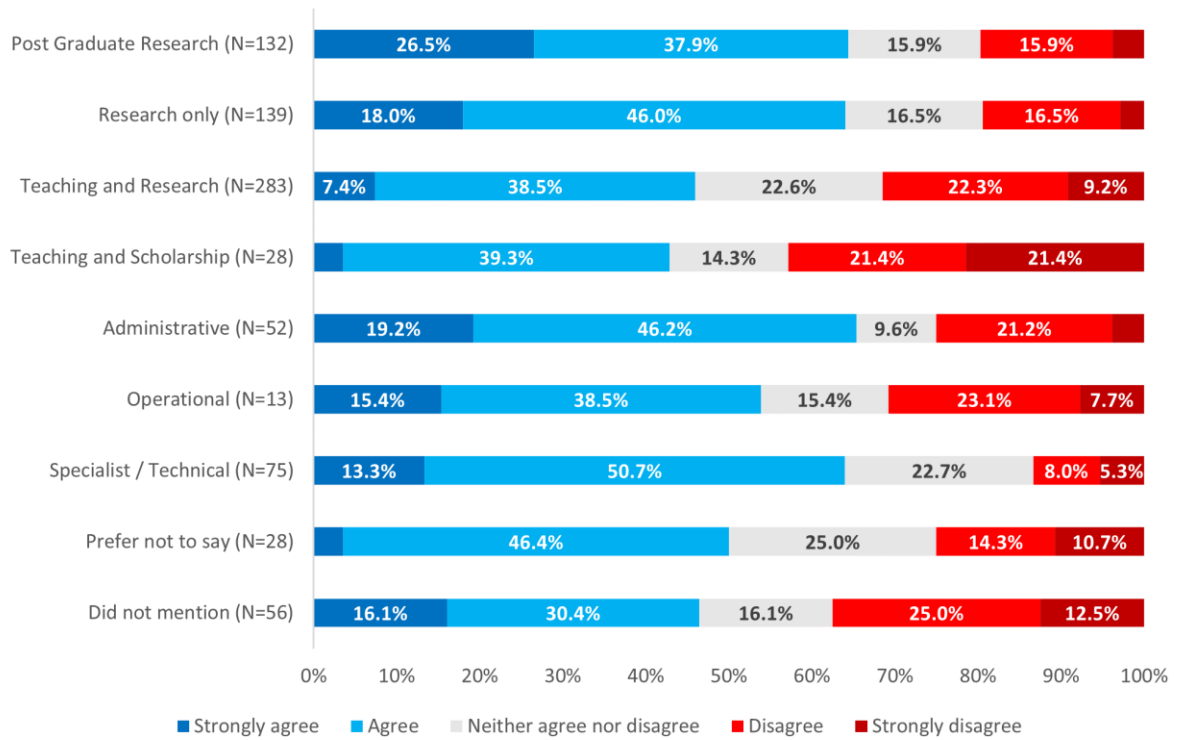

**Freedom to Grow and Explore**

Figure 2.4- Responses to the statement, *'Creativity is welcomed in the research environment where I work',* by role
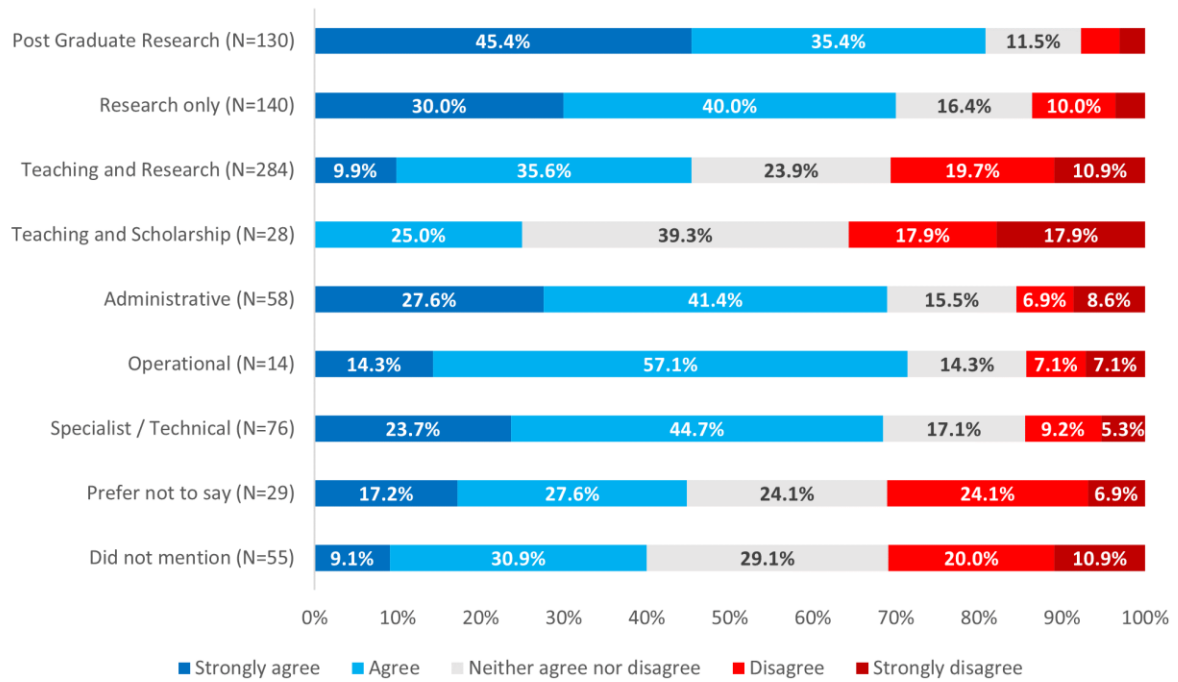
Figure 2.5- Responses to the statement, *'I have opportunities to exchange ideas and knowledge with people that stimulate my work'* by role

Figure 2.6- Responses to the statement, *'I am supported to be open when things go wrong and learn from my mistakes'* by role
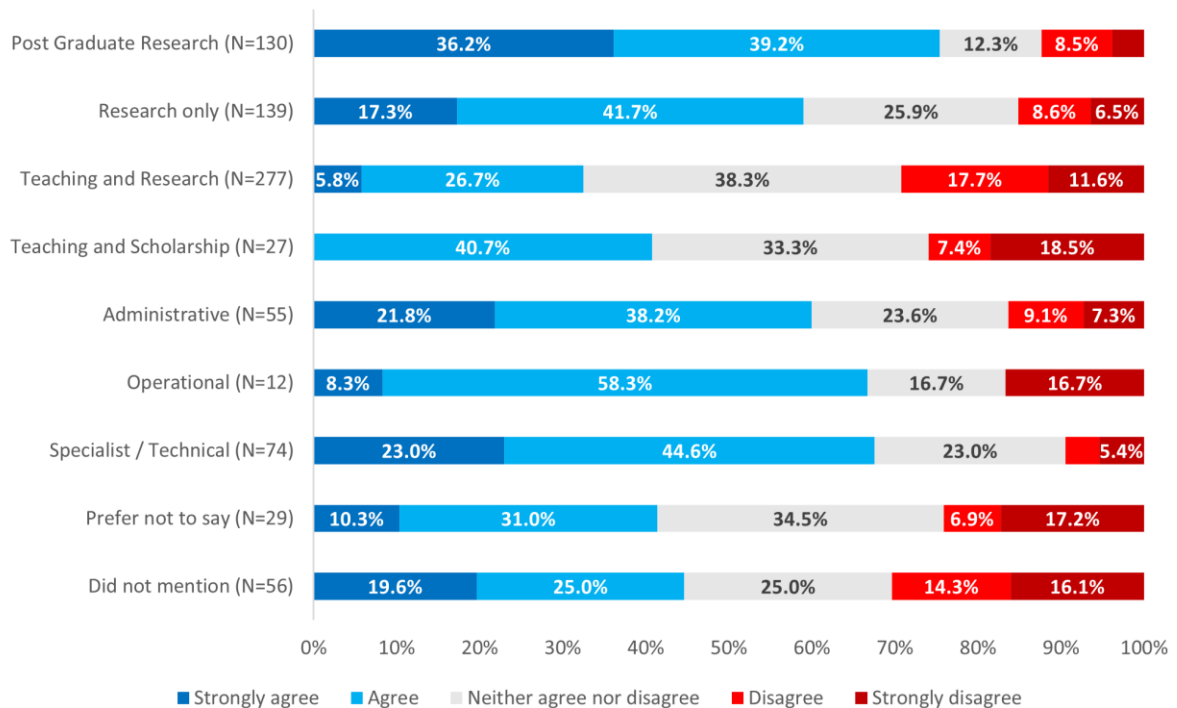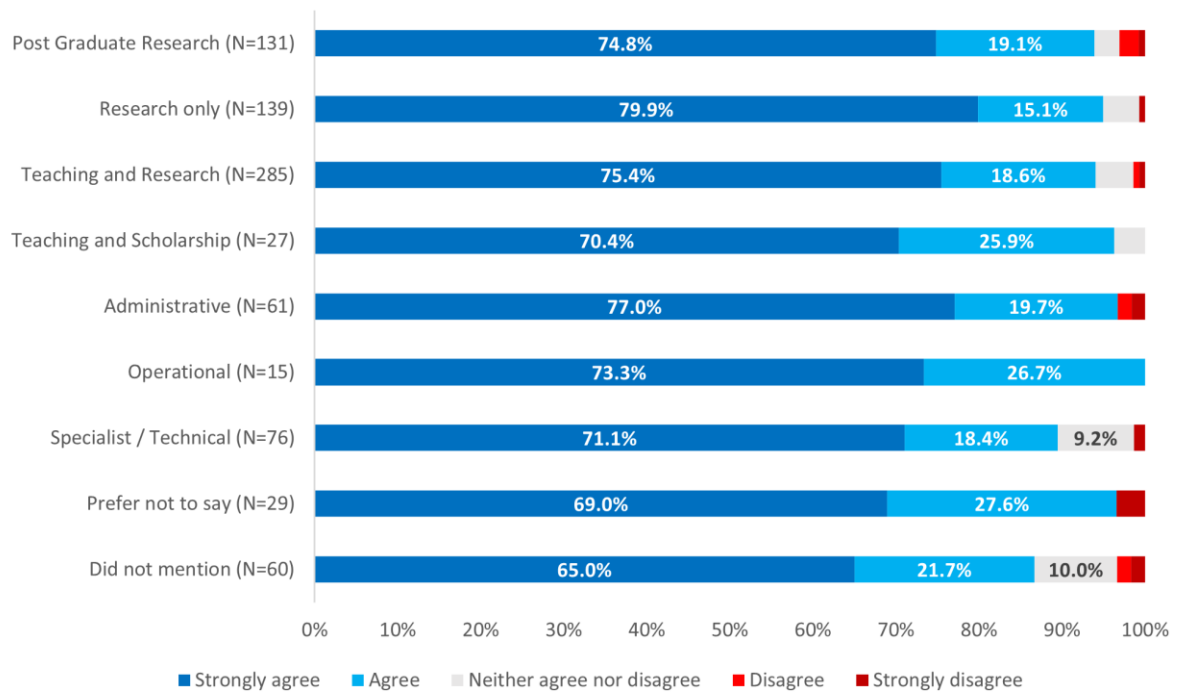
Figure 2.7- Responses to the statement, *'I am encouraged to develop my skills and expertise'* by role
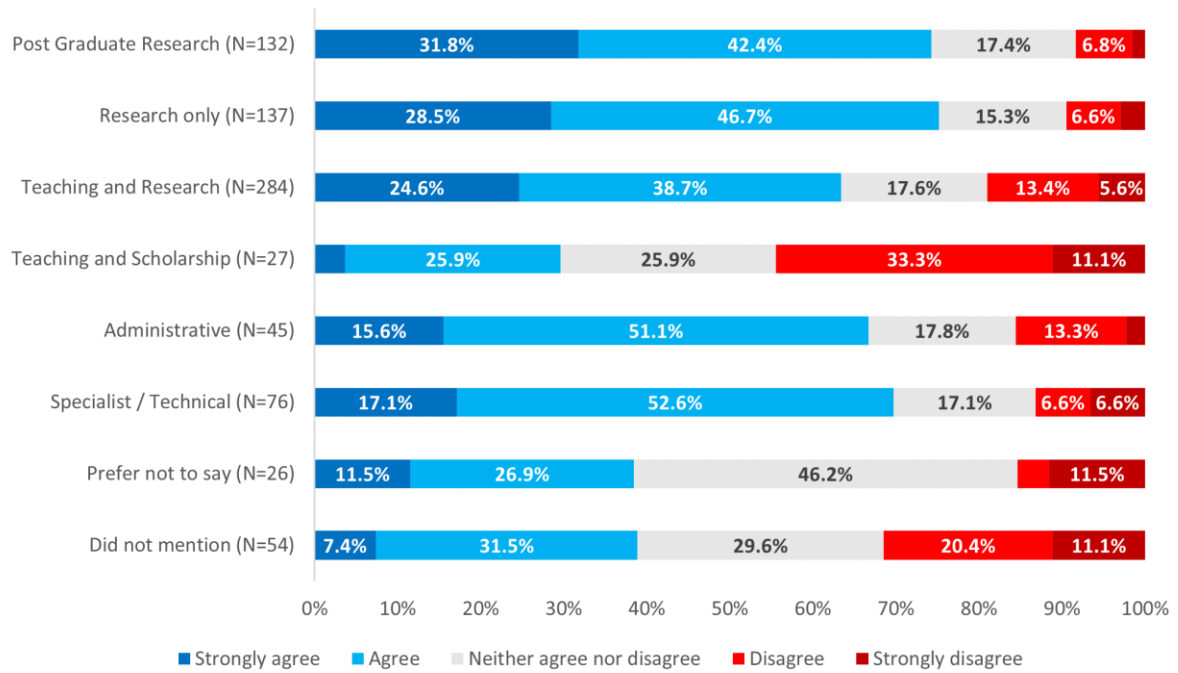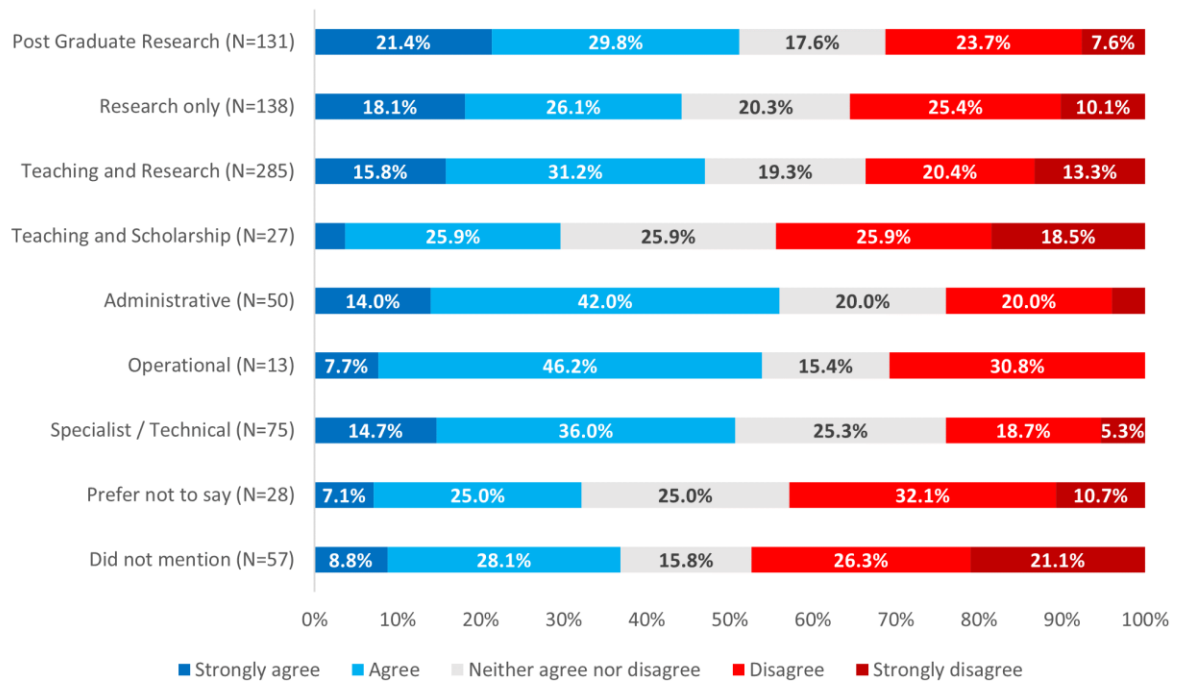

Fairness and Inclusion

Figure 2.8 -Responses to the statement, *'I think diversity is important for research and innovation'* by role

Figure 2.9- Responses to statement, *'In discussions around research, I feel my views are valued by those around me'* by role

Legend: Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree

Role	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Post Graduate Research (N=132)	31.8%	42.4%	17.4%	6.8%	
Research only (N=137)	28.5%	46.7%	15.3%	6.6%	
Teaching and Research (N=284)	24.6%	38.7%	17.6%	13.4%	5.6%
Teaching and Scholarship (N=27)		25.9%	25.9%	33.3%	11.1%
Administrative (N=45)	15.6%	51.1%	17.8%	13.3%	
Specialist / Technical (N=76)	17.1%	52.6%	17.1%	6.6%	6.6%
Prefer not to say (N=26)	11.5%	26.9%	46.2%	11.5%	
Did not mention (N=54)	7.4%	31.5%	29.6%	20.4%	11.1%

Figure 2.10 -Responses to the statement, *'I feel safe to challenge the way things are done to help improve research',* by role

Legend: Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree

| Role	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Post Graduate Research (N=131)	21.4%	29.8%	17.6%	23.7%	7.6%
Research only (N=138)	18.1%	26.1%	20.3%	25.4%	10.1%
Teaching and Research (N=285)	15.8%	31.2%	19.3%	20.4%	13.3%
Teaching and Scholarship (N=27)		25.9%	25.9%	25.9%	18.5%
Administrative (N=50)	14.0%	42.0%	20.0%	20.0%	
Operational (N=13)	7.7%	46.2%	15.4%	30.8%	
Specialist / Technical (N=75)	14.7%	36.0%	25.3%	18.7%	5.3%
Prefer not to say (N=28)	7.1%	25.0%	25.0%	32.1%	10.7%
Did not mention (N=57)	8.8%	28.1%	15.8%	26.3%	21.1%

Figure 2.11- Responses to the statement, *'I feel included as a member of the research community at Newcastle University',* by role
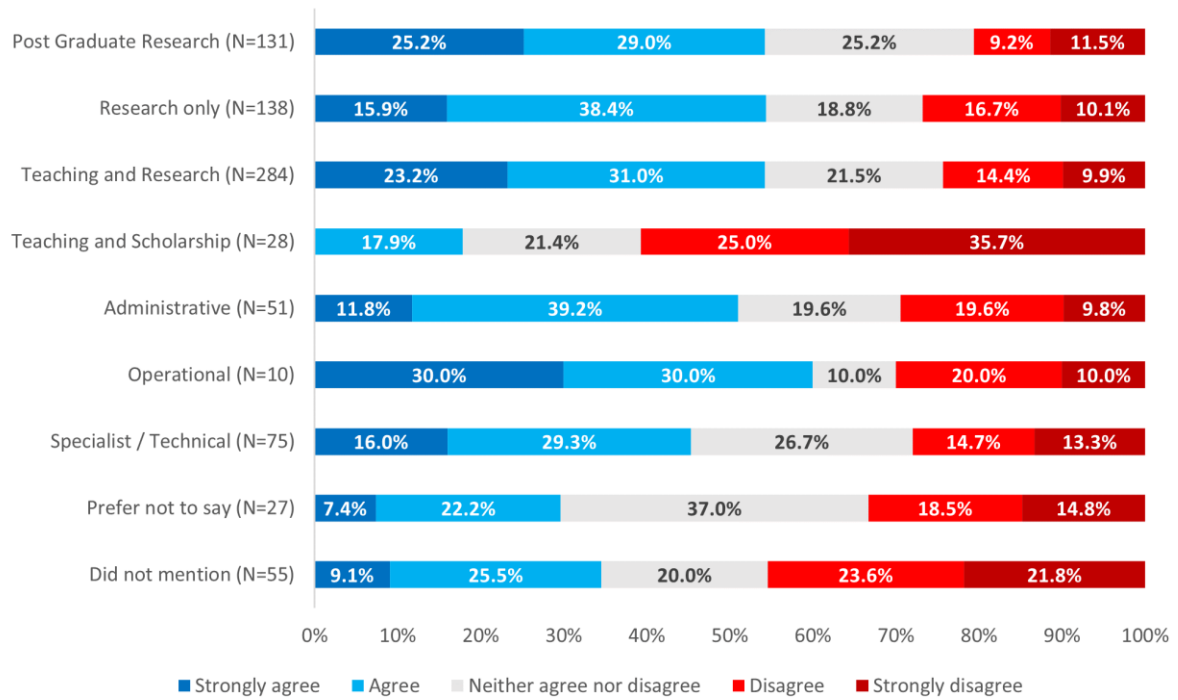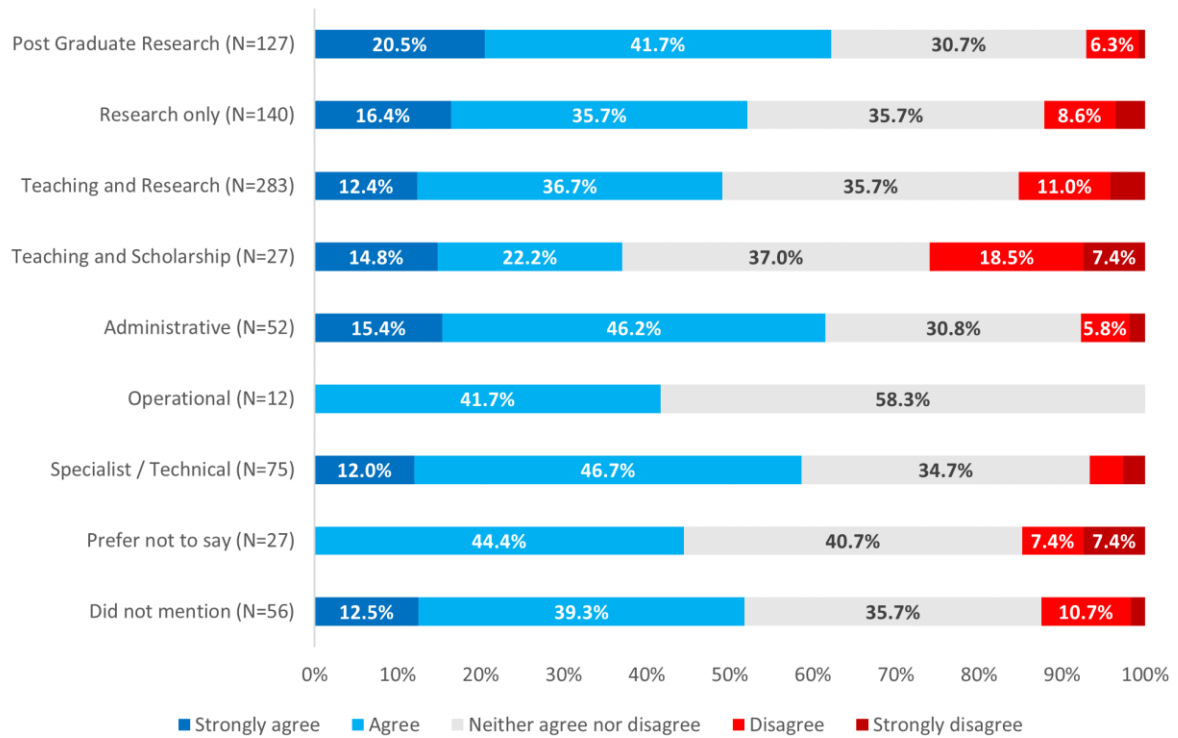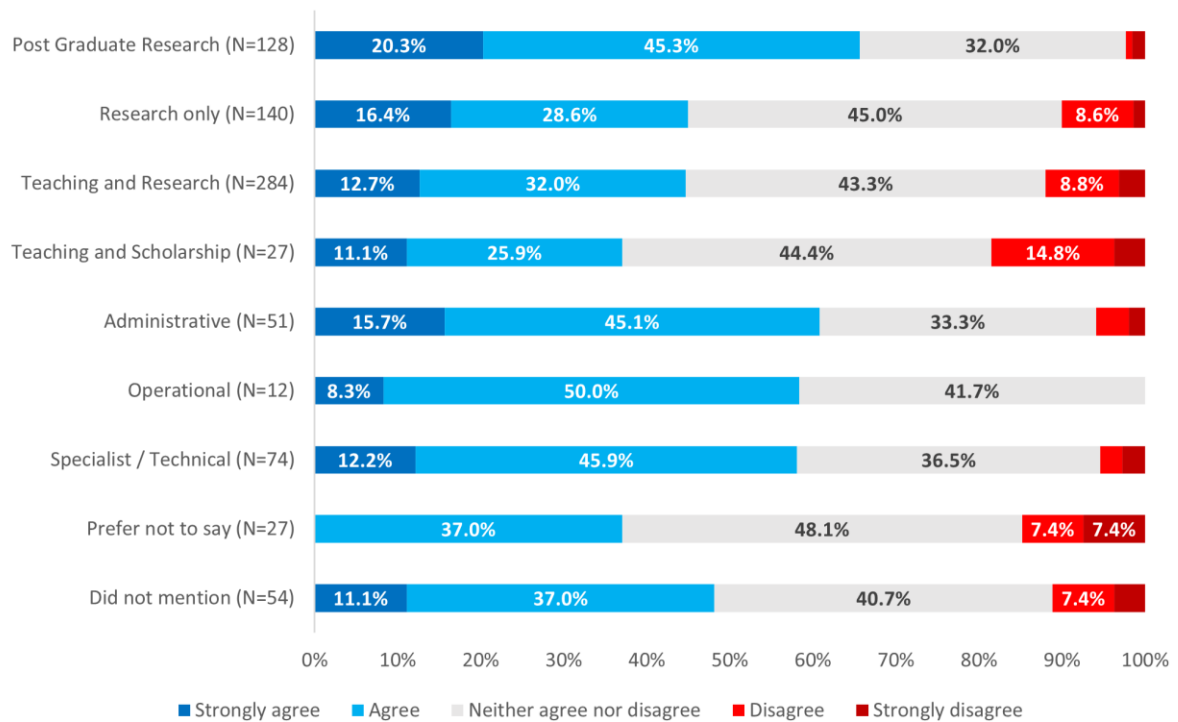

Openness and Integrity

Figure 2.12- Responses to the statement, *'I understand the benefits of open research practices'* by role
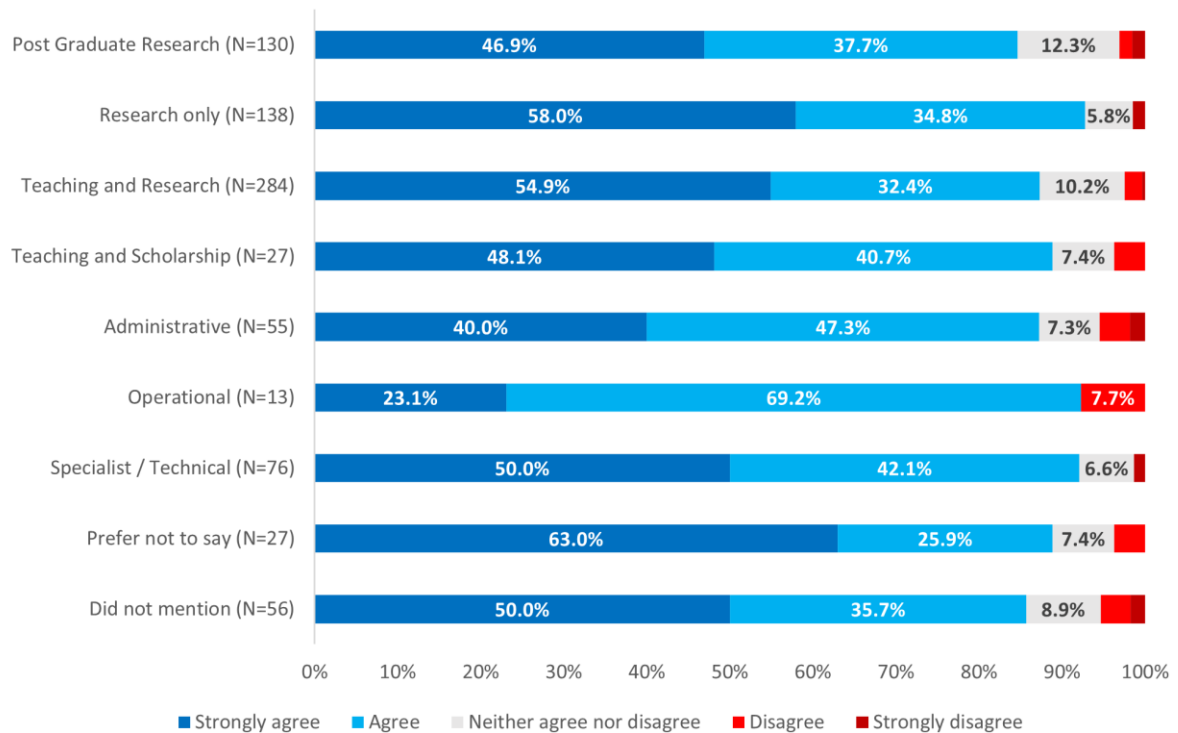
Figure 2.13 -Responses to the statement*, 'The University promotes the benefits of open research'* by role
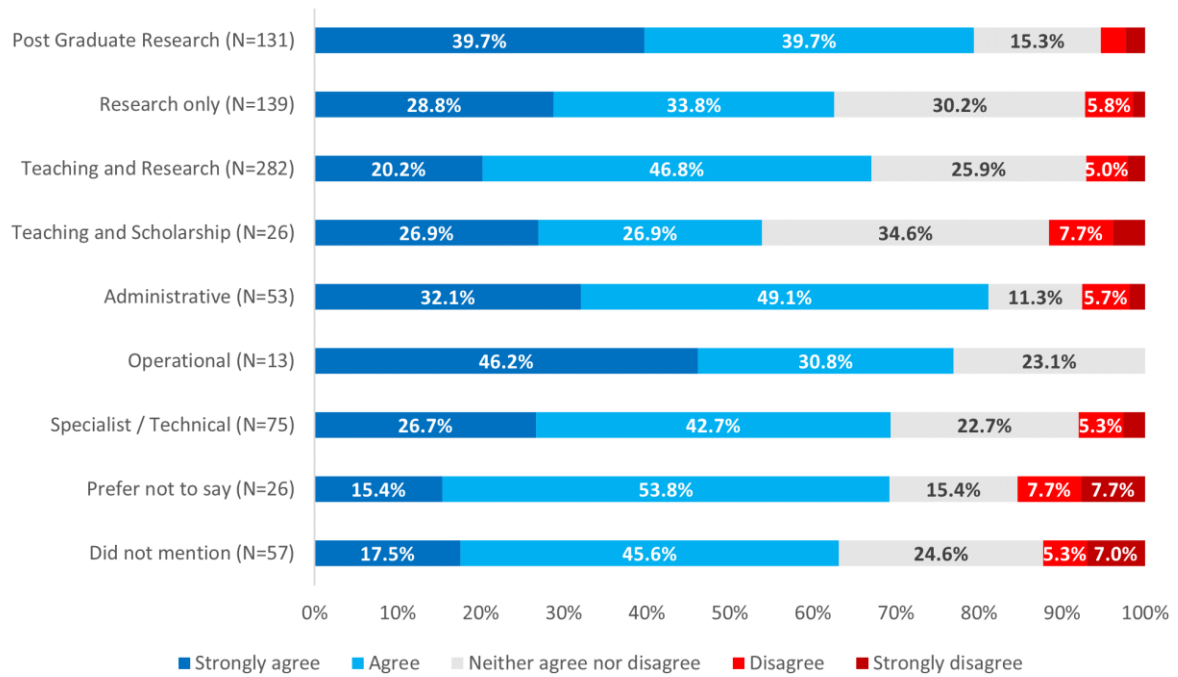

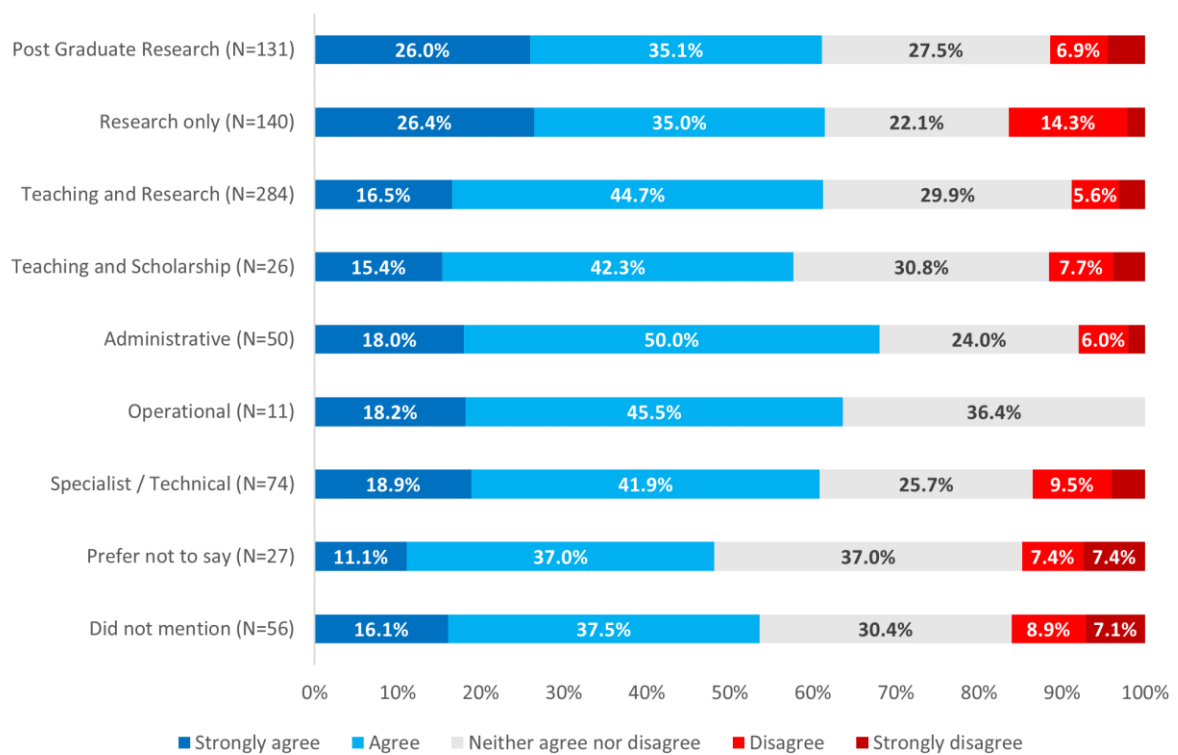**Figure 2.14 -**Responses to the statement, *'Open research practices are valued by the University',* by role

Figure 2.15- Responses to the statement, *'The University takes research integrity seriously'* by role

Figure 2.16 -Responses to the statement, *'In my experience, research in the University is carried out using the best research practices'* by role

Figure 2.17 -Response to the statement, *'I am confident that I know how to meet the ethical requirements of my research',* by role