University of Reading

Perceptions of Research Culture

at the University of Reading

February 2024

Contents

Foreword

Over the last few years there has been a progressive move in the higher education sector towards appreciating the quality of our research environment and the way we conduct and support research rather than simply judging its outputs.

The Wellcome Trust (2002) report, *What Researchers Think About The Culture They Work In*, and the government's R&D People and Culture Strategy (Department for Business, Energy and Industrial Strategy, 2021) have stimulated conversations about the aggressive and harmful competition, discrimination, bullying and harassment which can be prevalent in research environments, and they advocate for collective responsibility and change at all levels to address this. The desire to support and recognise a positive research environment is now evident amongst both researchers and research funders, and is almost certainly set to be a feature in the next Research Excellence Framework (REF).

With many universities responding to the call for action to improve research culture, it was inevitable that definitions of what constitutes a positive research culture would differ. It was for this reason that the University Committee for Research and Innovation (UCRI) at Reading decided to ask our research community what it defined as a positive research culture and how it perceived research culture at Reading. This report is the culmination of that work, carried out by Kevin Money, Carola Hillenbrand, Sam Lawal and Natalya Radko. They drew together themes that the UCRI, senior leaders, researchers and research support colleagues at Reading considered important in the context of research culture, combined them with selected themes featuring in well-publicised research culture surveys and relevant topics in the literature, and used these to construct a comprehensive University of Reading research culture survey. Their careful and detailed analysis was complemented by focus groups, which provided rich and insightful qualitative information to support the survey data.

The work described in this report will inform actions to improve research culture at the University of Reading, as I outline in my response to the report and an indication of what's next. These actions will continue to be shaped by consultation with researchers, Research Division Leads, Heads of School and professional services colleagues as we move forward. In the meantime, I am indebted to Kevin, Carola, Sam and Natalya for the dedicated effort that went into conducting the work and producing the report, and to all of the researchers and research support colleagues who completed the survey and took part in focus groups. We all have a role to play in supporting a positive research culture and I hope this report encourages open dialogue about how we achieve it.

Professor Parveen Yaqoob
Pro-Vice-Chancellor Research & Innovation

Executive summary

This report summarises two years of research activities – including both qualitative and quantitative methodologies and perceptions from academic and Professional Services participants – to understand what University of Reading staff think about the research culture they work in.

The results in this report are presented in three sections:

- Section 1 reports on findings from the initial inquiry into perceptions of research culture with staff in 2022.
- Section 2 reports on findings from two quantitative surveys conducted in spring/summer 2023 – one survey with academic staff and a separate survey with Professional Services staff. The surveys focus on 16 topics related to research culture: collaboration; risk; ambition; excellence; impact; research integrity; fairness; time for research/research support; recognition; personal support; support from Professional Services; IT/technical support; research leadership; equality, diversity and inclusion; an environment free from bullying and harassment; and mental health.
- Section 3 reports on findings from focus groups held in 2023 with mid-career academics. These were prompted by the findings of the initial 2022 study (Section 1) and a need to more deeply understand the particular pressures perceived by this group.

Key Findings

- Overall, the two-year research study reveals clear consistencies in findings, i.e. consistencies between findings from different staff groups as well as between qualitative and quantitative studies in 2022 and 2023 – suggesting that staff from across the University and across roles and functions experience current research culture in a widely congruous manner. Reassuringly, this indicates that any conclusions and actions taken as a result of this study are likely to address many commonly felt concerns.
- Findings from the quantitative surveys suggest that:
  - both academic staff and Professional Services staff rate their two highest scoring topics as a lived experience free from bullying and harassment and research excellence
  - both academic staff and Professional Services staff also agree on their two lowest scoring topics as support from IT/technical and time for research/ research support, albeit academic staff scoring time for research particularly low
  - while the overall patterns of ratings appear very similar between academic staff and Professional Services staff, some slight variation relate to experiences of collaboration (higher ratings from academic staff), time for research/support of research (lower ratings from academic staff), and the topic of equality, diversion and inclusion (lower ratings from Professional Services staff)

- the majority of topics in the surveys emerge as rated in an area of slight agreement (between 4= 'neither agree nor disagree' and 5= 'somewhat agree' on a 7-point scale) by both academic staff and Professional Services staff, hence offering an opportunity to improve research culture on a wide variety of topics, including areas such as recognition, research leadership, support at a personal level and mental health.

- Qualitative data appear largely congruous with numeric findings:
  - Focus groups with both academic staff and Professional Services staff in 2022 set the scene for much of the subsequent findings. Key findings in 2022, collected in an unprompted format, suggest the topics of support, collaboration and impact as the positive perceived aspects of the current research culture. Time pressure, fragmentation, lack of IT support and lack of recognition emerge as negatively perceived aspects.
  - To underpin this, the two lowest scoring topics in the survey – support from IT/technical and time for research/research support – emerge as two (out of four) key discussion themes in the mid-career focus groups in 2023. The other two mid-career focus group themes of fairness and collaboration also represent two further key topics in the staff surveys.
  - The mid-career focus groups were conducted with the aim of leveraging positive aspects and overcoming negative aspects of the current research culture. As such, there are many practical ideas related to nurturing and enhancing research culture. Ideas include benchmarking IT/technical support provision and investing in it accordingly, senior leaders role modelling the ring-fencing of research time and an even deeper engagement between academics and Professional Services throughout the lifecycle of a research project.
- A breakdown of survey results by career level and between academic staff and Professional Services staff reveal some nuances:
  - **Early-career academics** score relatively low on collaboration compared to other academic staff (as early in their careers, they may still be establishing contacts and collaborators); they also score relatively low on mental health. Early-career academics score higher than other academic groups on time for research, ambition, research integrity and the personal support they perceive they receive.
  - **Mid-career academics** indicate even less time for research than other academic groups, exhibit lower perceptions than other academic staff on equality, diversion and inclusion, as well as the lowest overall fairness score.
  - **Advanced-career academics** score excellence; collaboration; impact; equality, diversity and inclusion; and mental health higher than other groups but exhibit the lowest overall score on perceptions of research integrity, recognition and support at a personal level.
  - **Professional Services staff** score higher than academic staff on time to support research as well as on perceptions of ambition, but lower on collaboration, impact, research leadership and equality, diversity and inclusion.

- While only few differences appear between the mean scores of participants from different research themes at the University, it is noticeable that the research theme of 'Heritage & Creativity' often receives a higher mean score, meaning that academics in this theme tend to agree more than academics in other research themes that the presented research culture topics are part of their lived experiences. This applies to perceptions of excellence; research integrity; impact; equality, diversity and inclusion; research leadership; ambition; Professional Services support; support at a personal level; recognition and fairness.
- Comparisons of staff experiences of their own working environment with their University-level perceptions reveal that staff often rate perceptions of research culture in their own working environment higher than their perceptions of the University's overall research culture. This suggests that people believe their own working environment is characterised by a more positive research culture than the University overall on many of the presented topics. Indeed, this general trend holds true for both academic staff and Professional Services staff on the following topics: excellence, research leadership, ambition, support at a personal level, mental health, fairness, free from bullying and harassment.

Summary

The two-year inquiry into staff perceptions of research culture at the University of Reading reveals a coherent picture and shared understanding by staff, with clear consistencies between the findings emerging from data collected in 2022 and 2023, and between qualitative and quantitatively collected data. The findings also reveal clear consistencies between perceptions of academic staff and Professional Services staff, with a similar overall mean score pattern, albeit with some differences too.

The headline findings from the surveys indicate that both academic and Professional Services staff identify IT/technical support, perceptions of fairness, and time for research/research support as low rated areas of their lived experiences of research culture, with academic participants rating time for research particularly low. Academic staff indicate a lived experience free from bullying and harassment, followed by perceptions of excellence and collaboration as their highest ratings. The two highest scores for Professional Services staff are for a lived experience free from bullying and harassment and perceptions of excellence, followed by perceptions of research integrity, impact and ambition.

Introduction

Purpose of Study, Sponsors and Researchers

The University of Reading (UoR) aims to collectively nurture an institutional research culture that is supportive, collaborative, ambitious, fair, inclusive and excellent. This report summarises findings from University-wide research in 2022 and 2023 to understand staff views on these important areas. The purpose of the research is to explore what research culture means within the context of working at UoR, how staff at all levels and across all parts of UoR perceive and experience the current research culture and, going forward, to identify barriers and enablers of a positive and inclusive research culture at UoR.

Throughout 2022 and 2023, the project has been sponsored, overseen and communicated on by the University Committee for Research and Innovation (UCRI), led by Pro-Vice-Chancellor Professor Parveen Yaqoob.

The practical research work has been conducted by members of the John Madejski Centre for Reputation at Henley Business School (HBS), Professor Kevin Money and Professor Carola Hillenbrand, with the Postdoctoral Research Assistant support of Dr Natalya Radko in 2022 and Dr Samuel Tosin Lawal in 2023. We would like to thank Professor Adrian Bell and Elisha Bird for their practical support in the recruitment and coordination of participants for focus groups, piloting and survey dissemination. We also extend our sincere gratitude to Emma Lang and Kath Pilgrem from HBS who have supported us in the editing process of this report.

Survey/Focus Group Design and Participation

After a review of current evidence about research culture and best practice in other UK institutions, the research was conducted in a sequential manner, including qualitative (focus groups) and quantitative (large-scale survey) methodologies.

To present and summarise the findings of the overall project in a comprehensive manner, this report is structured in three sections. Section 1 reports on findings from the initial work with staff in 2022 conducted through focus groups. Section 2 reports on findings from two quantitative surveys in spring/summer 2023, one survey with academic staff and a separate survey with Professional Services staff. Section 3 reports on findings from mid-career focus groups into the specific pressures this group faces.

Focus group design and participation for initial work in 2022. Thirteen focus groups, lasting 60–90 minutes each, were conducted in April and June 2022, with 82 staff from 14 schools across UoR, including Professional Services, taking part. Academic participants were recruited by research deans and came from the following schools: Agriculture, Policy and Development; Archaeology, Geography and Environmental Science; Arts and Communication Design; Biological Sciences; Built Environment; Chemistry, Food and Pharmacy; Henley Business School; Humanities; Literature and Languages Sciences; Mathematical, Physical and Computational Sciences; Politics, Economics and International Relations.

For recruitment of participants in 2022, Professional Services were defined as: 'those who are supporting the research culture', (including professional staff supporting research, technical staff supporting research and communication professionals). Academic staff were recruited in 2022 to represent the following three categories: (1) leadership group: 'those who are leading the research culture', (including heads of school, heads of departments, research division leads and research group leaders); (2) mid-level group: 'those who are living the research culture', (including associate professors, lecturers, mid-career academics); and (3) early group: 'those who are supported by the research culture', (including early career researchers, postdoctoral research associates, PhD students).

Of the total number of participants (82), 24 were from Professional Services (with a gender split of 15 female and 9 male participants), 21 participants belonged to the leadership group (12 females and 9 males), 27 were from the mid-level group (16 females and 11 males) and 10 from the early group (5 female and 5 male participants).

Survey design and participation for two quantitative surveys conducted in spring/summer 2023, one survey for academic staff and a separate survey for Professional Services staff. The surveys for academic and Professional Services staff inquired into staff perceptions and lived experiences on 16 topics related to research culture. The 16 topics were: collaboration; risk; ambition; excellence; impact; research integrity; fairness; time for research/research support; recognition; personal support; support from Professional Services; IT/technical support; research leadership; equality, diversity and inclusion; free from bullying and harassment; and mental health.

The selection and development of these 16 topics was informed by:

- discussions with UCRI at the beginning of 2022 about topics that UoR research deans deem important
- topics emerging from the work described in Section 1 of this report
- survey questions from quantitative surveys conducted at the universities of St Andrews (Albaghli et al, 2021) and Glasgow (Adams & Casci, 2019), published in reports on research culture studies in these institutions and kindly shared with UoR researchers
- research culture survey topics drawn from the extant literature
- pilot interviews with a group of UoR Research Division Leaders, revising the final survey based on insightful comments from colleagues working in different areas across the University, as well as further input from UCRI on the draft surveys
- exploratory factor analyses during data analysis (which, for example, informed a nuanced grouping of items measuring support in three distinct ways: support at a personal level, support from Professional Services, and support from IT/technical)

While the questions to measure each topic were kept as similar as possible between the academic and the Professional Services staff versions of the survey, the exact wording of items for measurement differ in parts due to the nature of work conducted by both groups. While the academic survey was built on the points outlined above, the Professional Services survey was further adapted by input from Professional Services leaders. The academic staff survey initially led to 400 responses, of which 344 responses were usable for analysis. The Professional Services survey produced 64 responses, all of which were usable.

In terms of terminology, both surveys (the academic staff survey and the Professional Services staff survey) differentiate between the lived experiences of staff (i.e. perceptions and experiences of staff about research culture within their own working environment and within their groupings and with their colleagues), and the perception of research culture of the University of Reading (as summary UoR-level perceptions). This distinction was made following insights from initial work in 2022, where participants seemed to distinguish between the experiences in their own working environments and the perceptions of the University overall.

Response rate and sample demographics

In total, the two surveys had 410 usable responses. This translates into 344 usable responses for the academic staff survey and 64 usable responses for the Professional Services survey.

In terms of response rates[1]:

- The survey drew N=242 usable and identifiable responses from teaching and research (T&R) staff with a population size of 675, giving a response rate of 35.9% from T&R staff.
- The survey drew N=50 usable and identifiable responses from research intensive (RI) staff, which includes postdoctoral research assistants (PDRA) and other research staff, with an estimated population size of 350, giving a response rate of 14.3% from RI staff.
- The survey drew a further N=52 usable responses that were either not identifiable, prefer not to say, or teaching intensive (TI) or other job family.
- The survey drew N=64 usable responses from Professional Services, with an estimated population size of 80, giving a response rate of 80% from Professional Services staff.

Survey demographics for entire academic sample

There were 344 usable responses recorded. These responses can be broken down demographically as follows:

- **Gender:** About 37% (N=128) were female participants, 44% (N=151) were male, 0% reported being non-binary, and the remaining 19% (N=65) preferred not to say, ticked 'other' or left this question unanswered.
- **Age:** About 2% (N=7) were 29 years of age or younger, 14% (N=50) 30–39 years, 27% (N=92) 40–49 years, 23% (N=81) 50–59 years, 8% (N=28) 60–69 years, 0.6% (N=2) 70 or older, and the remaining 25.4% (N=84) preferred not to say or left this question unanswered.
- **Ethnicity:** About 65% (N=224) were White or White British, 4% (N=13) Asian or Asian British, 2% (N=6) Mixed Ethnic Background, 4% (N=15) Other Ethnic Background, and the remaining 25% (N=86) preferred not to say or left this question unanswered.
- **Disability:** About 6% (N=19) of participants indicated a disability, 71% (N=246) no disability, and the remaining 23% (N=79) preferred not to say or left this question unanswered.

1 For comparison, the St Andrews Research Culture Survey (Albaghli et al, 2021) drew a sample of 670 in total, which they describe in their report as an overall response rate of '15% of those invited, representing around 22% of those likely to have a direct interest in research.' (Albaghli et al, 2021, p5).

- **Job family:** About 70% (N=242) of participants indicated they belonged to the job family 'Research and teaching', while 11% (N=37) to 'Research intensive', 3% (N=12), 'Teaching intensive', 4% (N=13) 'Post-doctoral researcher', and the remaining 12% (N=40) preferred not to say or left this question unanswered.
- **Career level:** About 14% (N=48) of respondents were 'Early-career stage', 38% (N=132) 'Mid-career stage', 34% (N=116 'Advanced-career stage', and the remaining 14% (N=48) left this question unanswered. Please note that following stage 1, the wording for career levels has been amended slightly as follows: early-career academic (instead of early group), mid-career academic (instead of mid-level group) and advanced-career academic (instead of leadership group) to reflect career stages more accurately.
- Research theme: About 24.7% (N=85) of participants indicated they belong to the research theme 'Agriculture, Food & Health', 19.8% (N=68) 'Environment', 15.1% (N=52) 'Prosperity & Resilience', 16.3% (N=56) 'Heritage & Creativity', and the remaining 24.1% (N=83) preferred not to say or left this question unanswered.
- **Academic school:** About 10.8% (N=37) of participants indicated they belong to Henley Business School, 4.7% (N=16) School of Agriculture, Policy and Development, 4.9% (N=17) School of Archaeology, Geography and Environment Science, 2.9% (N=10) School of Arts and Communication Design, 2.6% (N=9) School of Built Environment, 9% (N=31) School of Chemistry, Food and Pharmacy, 0.3% (N=1) School of Construction Management and Engineering, 4.4% (N=15) School of Humanities, 1.7% (N=6) School of Law, 4.4% (N=15) School of Literature and Languages, 4.1% (N=14) School of Politics, Economic and International Relations, 9.6% (N=33) School of Psychology and Clinical Language Sciences, 6.7% (N=23) The School of Biological Sciences, 14.2% (N=49) The School of Mathematical, Physical and Computational Sciences, 0.6% (N=2) Institute of Education, and the remaining 19.2% (N=66) left this question unanswered.

Survey demographics for Professional Services staff sample

There were 64 usable responses recorded (including nine incomplete responses). These responses are broken down by demographics as follows:

- **Gender:** About 39.1% (N=25) indicated being female participants, 31.2% (N=20) were male, 0% non-binary, and the remaining 29.7% (N=19) preferred not to say, ticked 'other' or left this question unanswered.
- **Age:** About 3.1% (N=2) reported being 29 years of age or younger, 15.6% (N=10) were 30–39 years, 25% (N=16) 40–49 years, 15.6% (N=10) 50–59 years, 4.7% (N=3) 60–69 years, 0% reported being 70 or older, and the remaining 36% (N=23) preferred not to say or left this question unanswered.
- **Ethnicity:** About 64.1% (N=41) indicated being White or White British, 1.5% (N=1) were Asian or Asian British, and the remaining 34.4% (N=22) preferred not to say or left this question unanswered.
- **Disability:** About 7.8% (N=5) of participants indicated a disability, 57.8% (N=37) indicate no disability, and the remaining 34.4% (N=22) preferred not to say or left this question unanswered.
- **Career level:** About 1.5% (N=1) of respondents indicated 'Early-career stage', 51.6% (N=33) were 'Mid-career stage', 12.5% (N=8) 'Advanced-career stage', and the remaining 34.4% (N=22) preferred not to say or left this question unanswered.

- **Research theme:** About 9.4% (N=6) of participants indicated they provided professional services to 'Agriculture, Food & Health' only; 4.7% (N=3) 'Environment' only; 0% 'Prosperity & Resilience' only; 3.1% (N=2) 'Heritage & Creativity' only; 10.9% (N=7) Agriculture, Food & Health, and Environment; 1.6% (N=1) Agriculture, Food & Health, and Prosperity & Resilience; 3.1% (N=2) Prosperity & Resilience, and Heritage & Creativity; 1.6% (N=1) Environment, Prosperity & Resilience, and Heritage & Creativity; 25% (N=16) Agriculture, Food & Health, Environment, Prosperity & Resilience, and Heritage & Creativity; and the remaining 40.6% (N=26) preferred not to say or left this question unanswered.

Focus group design and participation for mid-career work in 2023: The qualitative focus groups with mid-career researchers (self-defined) included five focus groups lasting 60–90 minutes each, conducted in March and April 2023, with 20 mid-career researchers from nine schools across UoR taking part. Participants came from the following schools: School of Agriculture, Policy and Development, School of Archaeology, Henley Business School, School of Geography and Environmental Science, School of Arts and Communication Design, School of Built Environment, School of Chemistry, Food and Pharmacy, School of Law, School of Biological Sciences, and the Institute of Education.

Data Analysis and Reporting

Data was collected, analysed and reported sequentially: the initial work was carried out in 2022 (summarised in Section 1 of this report), the two quantitative surveys were developed, executed and analysed in 2023 (Section 2 of this report) and the mid-career focus groups were also conducted and analysed in 2023 (Section 3 of this report), supported by one part-time Post-doctoral Research Assistant in 2022 and one in 2023. Regarding qualitative data collection and analysis in 2022 and 2023, focus groups were recorded with the permission of participants so that full written transcripts could be produced. The initial work in 2022 resulted in 280 pages of qualitative transcripts and there were about 97 pages of transcript in the mid-career focus groups in 2023.

All focus group transcripts were analysed and coded into themes, following academic guidance on qualitative data analysis by Miles et al (2019). The 2022 data was coded into themes in relation to both current and desired research culture, in line with the scope for this initial piece of work. The emerging codes were then separated into themes that became evident as particularly prevalent amongst participants from different academic career levels and also from Professional Services staff. The mid-career focus groups in 2023 were analysed through cycles of thematic coding, whereby comments and text passages linked to a common theme were categorised so that patterns within the data could be identified, summarised and interpreted. This process led to uncovering four prevalent themes that were most widely referred to by mid-career researchers in terms of the specific pressures as they perceive them, as well as suggestions for a way forward. These four themes are presented and discussed in some depth in Section 3 of this report. Interestingly, they match key points emerging from the quantitative data analysis, thereby providing some nuance and in-depth insights to support and elaborate on findings presented in Section 2.

Additional qualitative data was gathered at the end of the quantitative surveys by offering participants the opportunity to provide open-ended comments, such as suggestions for the most powerful interventions that the University could make to help support the research culture and an opportunity to provide a brief example of a positive/negative aspect of the University's research culture from their recent experience.

Respondents were also asked to provide three keywords or short phrases that they associate with the current research culture at the University. These comments provide verbatim evidence to support the findings from the quantitative analysis and offer context and examples of what experiences underpin participants' quantitative scoring. The academic survey generated 703 qualitative comments relating to the University of Reading's research culture. Of these, 222 comments relate to positive aspects, 224 to negative aspects, and 257 relate to the most powerful interventions to improve research culture. The Professional Services survey generated 129 qualitative responses relating to the University of Reading's research culture. Of these, 28 comments relate to positive aspects, 39 to negative aspects, and 62 relate to the most powerful interventions to improve research culture. Illustrative comments are provided throughout Section 2. The displayed quotes in each section illustrate typical sentiments related to each topic but are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

In terms of quantitative data analysis, closed-ended questions in the surveys offered tick-box responses on a 7-point Likert-type agreement scale from 1=strongly disagree to 7=strongly agree, with the mid-point of the scale labelled 4=neither agree nor disagree. No forced answer design was chosen, meaning that participants could leave questions empty if they preferred not to answer them and still proceed through the questionnaire.

Survey data was collected on Qualtrics online survey platform through a Henley Business School licence. Raw data was downloaded into Excel and subsequently converted into an SPSS 27.0 datafile for analysis. Data from the survey with academic staff and data from the survey with Professional Services staff were saved in separate data files and analysed separately due to the two surveys differing in some of the scale items (as discussed earlier, this is because of the different nature of research-related work done by both groups). The two separate data files were subjected to standard multivariate data preparation (see Hair et al, 2018), such as checking for straight-liners, outliers and missing values. Items belonging to a common conceptual scale were subjected to Cronbach Alpha Reliability tests, and scales/items that satisfied reliability requirements combined into summated scales for subsequent analysis at scale level. Distributions of all newly created scales were carefully checked, revealing single-peaked distributions with skewness and kurtosis values set within expected boundaries in survey-type research (see Hair et al, 2018).

An analysis of items relating to support suggested that these questions could be usefully split into sub-scales. Items belonging to the concept of support were, therefore, subjected to an exploratory factor analysis with Varimax rotation, suggesting that perceptions of support from Professional Services, IT/technical support and support at a personal level would benefit from separation, as the items loaded clearly on three distinct factors. Hence, they were separated and, as their separate Cronbach Alpha Scores also emerged satisfactorily, developed into three distinct topics reported on in their own right.

Negatively worded items were carefully checked to ensure they had been fully understood by participants and scales with negatively worded items were then subjected to reverse coding of relevant items so that a high score in each item and scale corresponds with a high expression of a research culture topic. (For example, a high score of 'free from bullying and harassment' indicates an absence of bullying and harassment. A high score of 'excellence' signifies high perceptions of research excellence. A high score of 'time for research/research support' indicates respondents agree they have a lot of time for research and/or research support.)

Average scores are presented to two decimal places and rounded to the third decimal place. Scores were rounded up if the third decimal place was at or above .xx5 and were rounded down if below. We used the same convention when reporting the percentages of sub-groups among respondents. Due to this rounding convention, aggregated percentages presented may not always equal 100%.

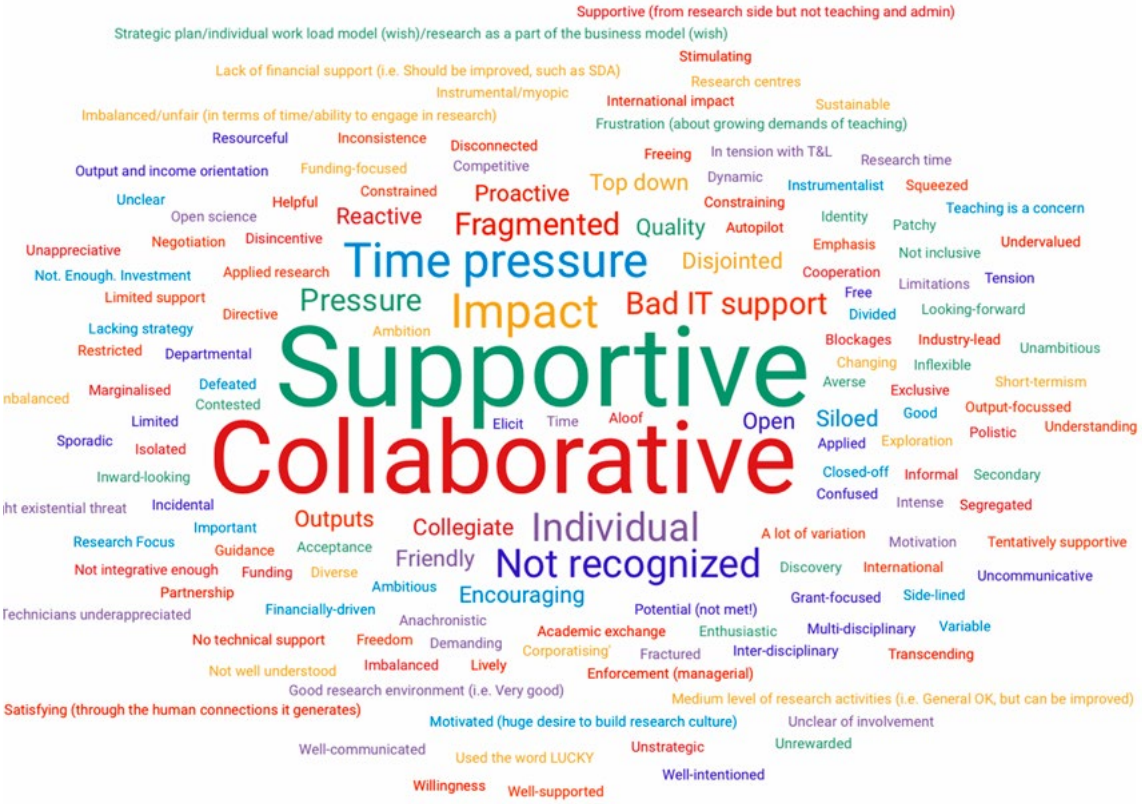
Mean scores reported in this report are compared between career levels and between research themes in a descriptive manner rather than an inferential manner to keep the summary findings easily understandable and avoid being overly technical. As such, the report avoids the display of significant mean score differences and exhibits absolute mean scores only for each subgroup.

1. Initial study 2022

The aim of the 2022 study was to explore how the current research culture at the University of Reading is understood and perceived by staff, and what a desired research culture would look like. To gain insights into staff views on current research culture, a series of 13 focus groups were held with 82 participants across the University. A comprehensive overview of the results of this initial study was presented to UCRI in September 2022. Below is a brief description of key findings.

At the start of the focus groups, participants were asked to name three words 'to describe the current research culture at the University of Reading in your own experience.' A summary of participant responses is displayed in Figure 1.1, with greater prominence given to those words that appear more frequently.

Figure 1.1 Research culture unprompted (2022)



In this unprompted format, 'support', 'collaboration' and 'impact' emerged as the positive perceived aspects of the current research culture. 'Time pressure', 'fragmentation', 'lack of IT support' and 'lack of recognition' emerged as negatively perceived aspects. In the subsequent discussions, participants elaborated more on aspects of these current positive and negative aspects.

Select representative quotes are displayed below:

'We're quite often collaborative in the multidisciplinary sense. We collaborate outside of the division with others, both nationally and internationally and different disciplines and we do collaborate with one another.'
(Leadership group: Collaboration)

'I found that there's a lot in place in the University to support early career researchers and new staff, particularly within the theme. And so whatever theme your research division falls under, and there were, you know, various pieces of information and stuff that I was sent about the theme when I joined.'
(Early group: Support)

'We respond to opportunity I think at the University of Reading. I don't think we have a proactive culture where we take strategic tips, steps to realise opportunities or create opportunity as much as perhaps happens in some other universities. We don't always mobilise quickly enough to capitalise on the opportunities. We're not always well positioned to make the most of opportunities.'
(Professional Services: Fragmentation, Reactive)

'I think there is this assumption that it will just happen... without investment, without resource, just we've hired you – go do research, somehow juggle that in with the thousand other things you can ask to do and make it happen.'
(Leadership group: Time pressure)

'I do know what the people in meteorology are working on... Do you know what people in agriculture are working on? You know, what people in computer science are working on? I don't think many people would know that and vice versa. So, I do think we all tend to stick very much to our field of knowledge.'
(Early group: Fragmented)

'It does just feel like the lack of properly protected research time is just an issue for everyone, and it is. Researching in an institutional environment does require a bit of a two-way trust between individual researchers knowing that the University trusts you and your potential, but also for them to trust you to use your time in a way that is actually research productive.'
(Mid-level group: Time pressure)

'I think, in comparison to other institutions, I have had a lot of technical hustles in terms of I do not have any technical support at all. Technicians in my school are focusing on teaching and learning. They are here to help us on teaching practical. I do not have any technician support and all the equipment I have to maintain to train students to develop experimental around. This is a lot of time, my time, that I believe could be personally done by technician profile.'
(Early group: Lack of technical support)

'I think you know, the University has these major flagship projects such as the British Museum or Malaysia and the Royal Berkshire. They're all very important things to pursue and I'm very grateful that I'm part of some of those efforts, but (...) we don't want to be told as to what kind of research is valuable because it's valuable to somebody in Whiteknights house. You see what I mean? I mean, it's important for our University to collaborate with other institutions. But I think going back to the point that (...) made about macro and micro – it is important for individual research agendas to be honoured and encouraged and then celebrated. I thought that that lacks a little.'

(Mid-level group: Recognition)

'It would be nice to have slightly more consistency in terms of, yeah, research isn't something you can do in little pockets of time scattered through the year, I just had a conversation with technical services where they well, we've come to the end of teaching. Can we get our technicians to do some stuff and help out in the research labs? And I'm like, well, that would be lovely, but actually I need them all year round. I don't need them in-between teaching. I need some kind of consistency and certainty to really properly do research. So I think, yeah, I throw inconsistent a word into the mix.'

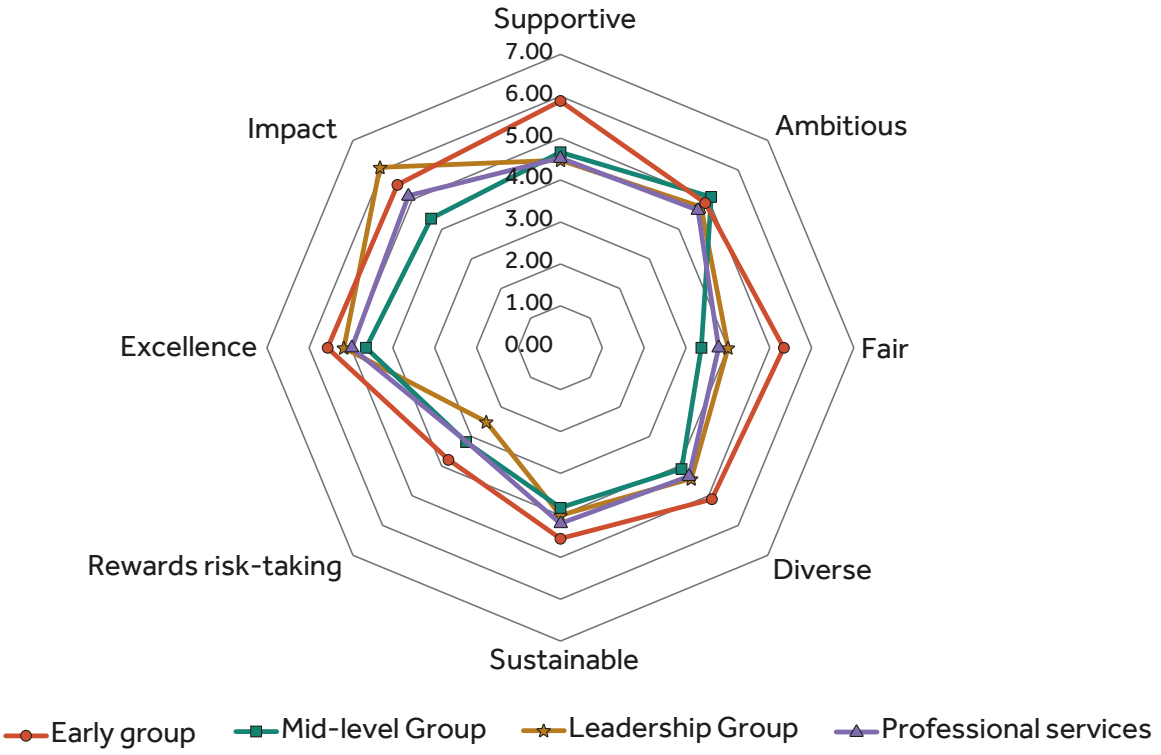
(Leadership group: Technical support, Fragmented)

'There's lots of ways that I see disconnect, but the big one is when we think about time and I think several people mentioned that often research is kind of the last thing on the list, we have to do everything else first and it's because we disconnect the importance of research from all of our other activities. So instead we should see fundamentally research and teaching hand in hand. And if we did that, then I think we'd immediately start to have this sense of the importance of research. So in the past I've heard comments about, you know, teaching, subsidising research instead of thinking actually about the value that research brings to, to teaching, to recruitment, to, you know, not just students but staff. So this is the disconnect I see, you know, the two are intertwined.'

(Mid-level group: Fragmentation, Competing demands)

In addition to free-flowing conversations about participants' experiences, all participants were also asked to numerically rate eight aspects of the current research culture with scores out of 7 (where a score of 1 indicates strong disagreement and a score of 7 indicates strong agreement with each aspect of research culture at UoR). These eight aspects had been chosen based on existing UoR research strategy documentation, as well as based on conversations with UCRI. Figure 1.2 displays mean scores for perceptions of staff on these eight aspects, divided into four groups of respondents: Leadership group (advanced-level academics), Mid-level group (mid-career academics), Early group (early career academics), and Professional Services staff. The numeric scores presented are highlighted in a way in which red signals a score below 4 (the mid-point of the scale); green signals a score above 5 (above the 'somewhat agree' point of the scale); and black signals scores between 4 (the mid-point of the scale) and 5 ('somewhat agree'), indicating slight agreement.

Figure 1.2 Research culture prompted (2022): mean scores by group



	All N=28	Leadership Group N=21	Mid-level Group N=27	Early Group N=10	Professional Services N=24
Supportive	M=4.64	M=4.48	M=4.67	**M=5.89**	M=4.53
Ambitious	M=4.29	M=4.75	**M=5.09**	M=4.89	M=4.64
Fair	**M=3.75**	M=4.00	**M=3.36**	**M=5.33**	**M=3.78**
Diverse	M=4.36	M=4.42	M=4.09	**M=5.11**	M=4.34
Sustainable	M=4.13	M=4.00	**M=3.82**	M=4.56	M=4.20
Rewards risk-taking	M=3.07	M=2.50	M=3.18	M=3.78	M=3.17
Excellence	M=4.82	**M=5.17**	M=4.64	**M=5.56**	M=4.98
Impact	**M=5.16**	**M=6.09**	M=4.36	**M=5.50**	**M=5.13**

The prompted results in Figure 1.2 reiterate some of the unprompted results in Figure 1.1, that support and impact are related relatively highly but, in addition, also suggest relatively low ratings on risk-taking and fairness. Overall, while results across groups follow a similar pattern, the Early group (early-career academics) appear the most positive overall, while the Mid-level group (mid-career academics) appear least positive.

Interestingly, while the focus groups suggest a fair amount of consensus between participants within different career groups and career levels about perceptions of current research culture, there is disparity about ideas for a desired research culture. While participants across groups stress how desirable and important certain aspects are (such as support and collaboration – building on existing experiences with current research culture), participants from the leadership group express, in addition, a desire for boldness, inspiration and a sense of inclusion. Participants from the mid-level group express a particular desire for more investment in their careers, including more time for research, more recognition and a sense of being valued. Participants from the early group mention flexible working culture, work–life balance and the importance of open access and non-traditional outputs. Professional Services staff express a desire for a more pro-active research strategy and for more recognition of their work (as well as work that is happening across the University).

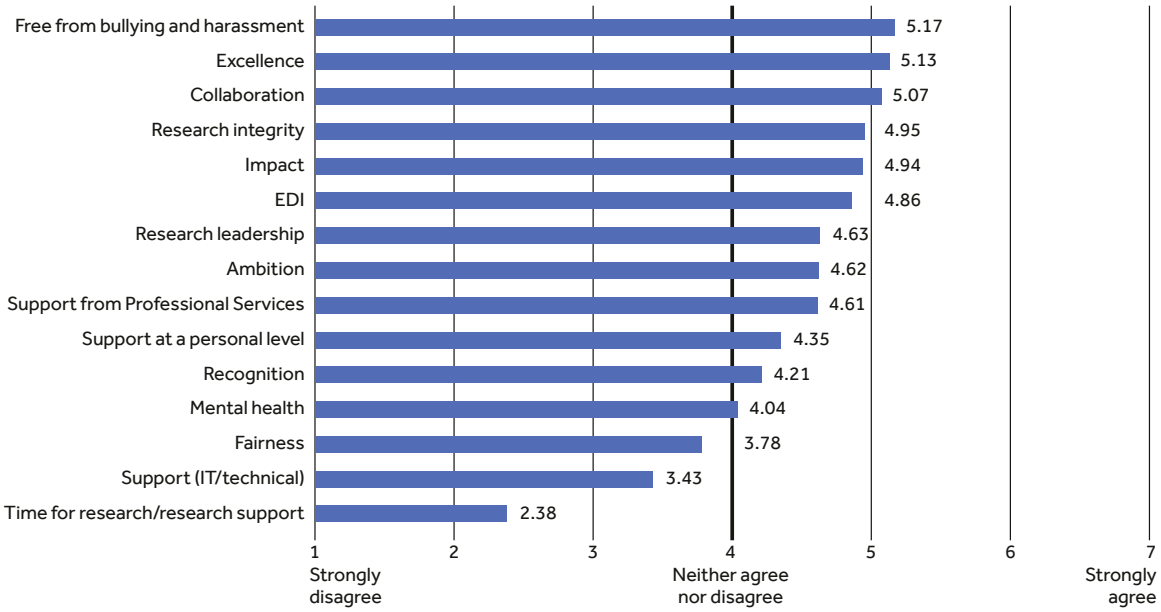
To summarise the headline findings that emerged from the initial study in 2022, focus group participants felt strongly that research culture should be seen in the context of the competing demands of teaching, administration and student support, i.e. the broader University culture. The positive perceived aspects (and general alignment between groups) of current research culture at the University emerged as support, collaboration and impact, while the more negatively perceived aspects related to time pressure, perceived lack of fairness, fragmentation, perceived lack of recognition and also of risk-taking. Early-career academics seem to have the most positive overall perceptions, while mid-career academics are more critical, suggesting a possible misalignment in experience and perception between these groups. When asked about their desired research culture, all participants want to build on the importance of support and collaboration, but they also signalled possible new dimensions such as: ambition, openness, creativity, inclusion, sustainability, a sense of being valued and more of a strategic focus.

2. Surveys in 2023

Surveys conducted in April/May 2023 with academic staff and in May/June 2023 with Professional Services staff inquire into staff perceptions[2] of research culture as expressed in 16 topics.

For a visual summary, all topics (except the topic of risk) are presented in Figure 2.1. The topics are positioned in descending order based on the lived experiences scores of the entire academic sample, starting with the topic that received the highest overall mean score (free from bullying and harassment) to the topic that received the lowest overall mean score (time for research/research support). The results of the entire academic sample (as the largest entity in this study) is used as an organising principle to display and contrast the lived experiences of Professional Services staff (which constitute a smaller sample).

Figure 2.1 Academic experiences of research culture by topic

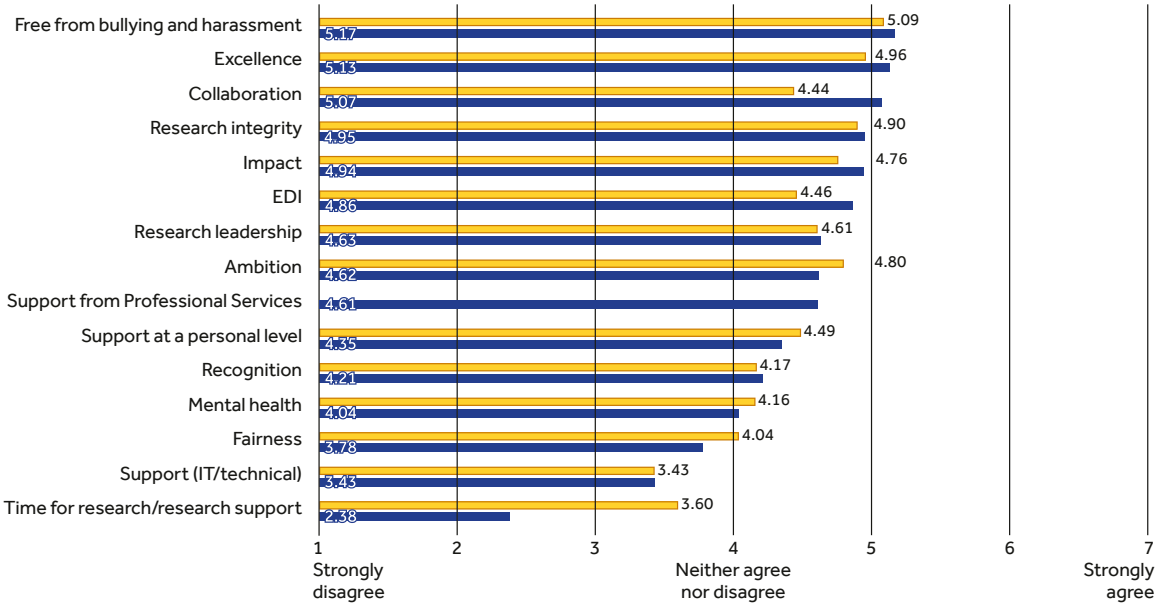


Notes: High score illustrates perception of strong lived experience of a research culture topic. Scale ranges from 1 = strongly disagree to 7 = strongly agree. N=344 academic staff.

In summary, Figure 2.1 highlights the top three rated topics (from the perspective of academic staff) as free from bullying and harassment, excellence and collaboration. The bottom three rated topics are fairness, support from IT/technical, and time for research/research support. Figure 2.2 compares the results from the Professional Services staff survey with the academic staff survey results.

2 The majority of survey items measured lived experiences of staff, which, as discussed earlier in this report, refer to perceptions and experiences of staff about research culture within their own working environment, i.e. within their groupings (be they departments, divisions, research centres etc) and interactions with colleagues on a regular basis. Figure 2.1 and Figure 2.2 report on people's lived experiences. The final item in each topic then measured, separately, how participants perceive each topic at the level of UoR, i.e. 'In my overall experience, the University of Reading has a collaborative research culture.' Scores for lived experiences and UoR-level perceptions are reported separately throughout Section 2.

Figure 2.2 Comparing academic staff (blue) and Professional Services staff (yellow)



Notes: The lived experiences mean scores of the entire academic sample are presented in blue (identical to Figure 2.1). The lived experiences mean scores for Professional Services staff are displayed in yellow for comparison. N=344 academic staff and N=64 Professional Services staff.

While Professional Services staff tend to rate their experiences of research culture topics a little lower than academic staff scores, free from bullying and harassment, excellence and research integrity emerge as their top ratings. The bottom three rated topics in the Professional Services results are identical to the academic staff results: fairness, IT/technical support, and time for research support. Interestingly, a comparison of academic staff and Professional Services staff on all research culture topics reveals a similar overall pattern of experiences. As mentioned in the introduction, the definition and item wording for each topic vary slightly between the academic staff survey and the Professional Services staff survey due to the different nature of experiences in relation to research culture by these groups. An exact definition of each topic for each separate group (academic and Professional Services) is provided in the footnotes of Sections 2.1 to 2.16.

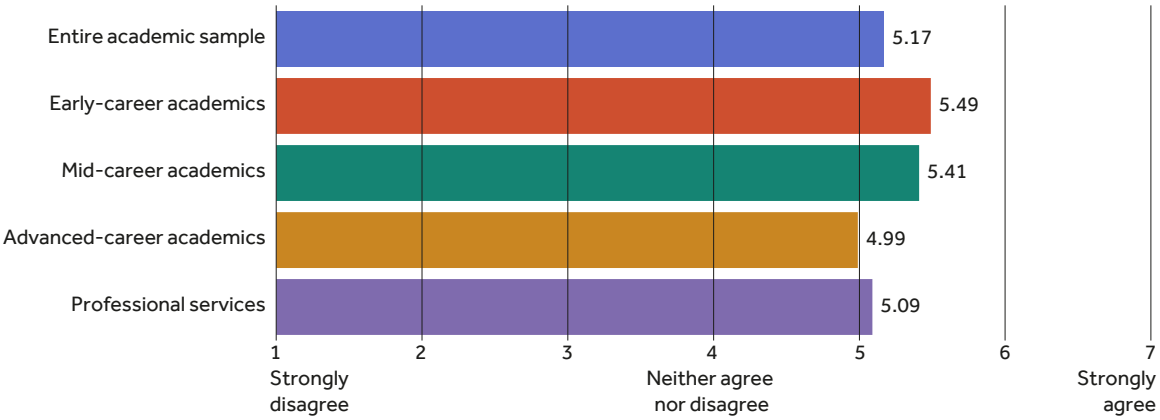
The following sections (Section 2.1 to 2.16) provide a nuanced analysis of each topic, including a breakdown of results by career level and research theme. The following sections also display perceptions of research culture at UoR-level alongside participants' lived experiences.

2.1 Free from Bullying and Harassment

What is measured in this topic? The survey measured staff experiences of working in an environment that is free from bullying and harassment, including experiences that if bullying and harassment did occur it would be dealt with appropriately.

Free from bullying and harassment emerges as the topic with the highest overall mean score of M=5.17 (N=335) in the full academic sample, indicating that academics agree that their lived experience of research culture is one that is generally free from bullying and harassment[3]. A breakdown by academic career level reveals that early-career academics report the highest mean score with M=5.49 (N=48), followed by mid-career academics M=5.41 (N=131) and advanced-career academics M=4.99 (N=115). For Professional Services staff[4], free from bullying and harassment emerges with a mean score of M=5.09 (N=56). Figure 2.3 compares the full academic sample with a breakdown by career level and the Professional Services staff score.

Figure 2.3 Free from bullying and harassment: by career level

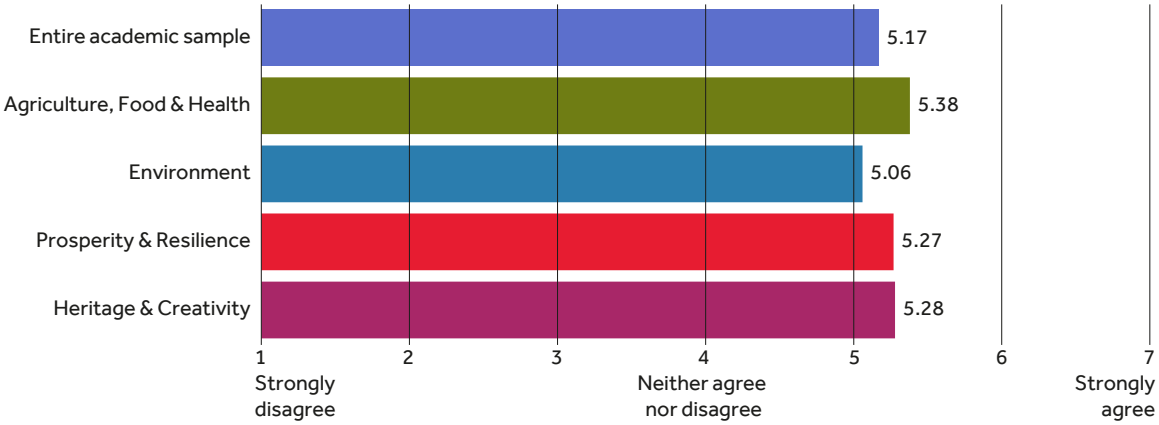


A breakdown of data by academics belonging to UoR's four research themes reveals that lived experiences scores relating to an environment free from bullying and harassment appear to be at a similar level across different research themes, starting (in descending order) with a mean score of M=5.38 (N=85) in 'Agriculture, Food & Health', a score of M=5.28 (N=52) in 'Heritage & Creativity', a score of M=5.27 (N=51) in 'Prosperity & Resilience' and a score of M=5.06 (N=68) in 'Environment'. Figure 2.4 compares the mean scores of the four research themes with the overall academic sample score.

3 Definition of *free from bullying and harassment* in terms of the items measuring the lived experiences of academics as not feeling harassed; not witnessing others being harassed; and confidence that any bullying and harassment is being appropriately dealt with.

4 Definition of *free from bullying and harassment* in terms of the items measuring the lived experiences of Professional Services staff as not feeling harassed; not witnessing others being harassed; and confidence that any bullying and harassment is being appropriately dealt with.

Figure 2.4 Free from bullying and harassment: by research theme



In terms of perceptions of bullying and harassment as a University-level topic (rather than the lived experiences of staff), both academic staff and Professional Services staff provide a mean score close to, but a little lower than, 5 ('somewhat agree') that the UoR research culture does not tolerate bullying and harassment (see Table 2.1).

Table 2.1 University-level perceptions: Free from bullying and harassment

Academic survey	'In my overall experience, the University of Reading has a research culture that does not tolerate bullying and harassment.'	M=4.94 (N=336)
Professional Services survey	'In my overall experience, the University of Reading has a research culture that does not tolerate bullying and harassment.'	M=4.88 (N=56)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments

The analysis reveals very few end-of-survey comments that relate directly to issues of bullying and harassment. The quotes that do exist tend to be of a personal nature and cannot be shared without potentially identifying individuals or heavy editing, which could compromise the meaning of the quote. Cross references can be made with quotes provided in the section on equality, diversity and inclusion.

Summary

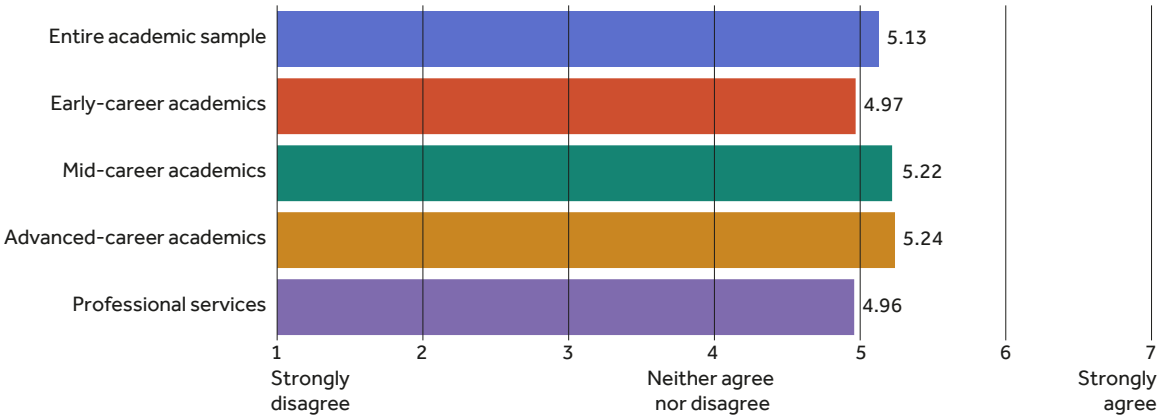
Participants tend to agree that overall their working environment is generally free from bullying and harassment and that they have confidence any bullying and harassment would be dealt with appropriately. When comparing staff perceptions of their own working environment with staff perceptions of bullying and harassment at the University overall, people are even more positive about their own working environment being free of bullying and harassment than the University overall.

2.2 Excellence

What is measured in this topic? The survey measured staff experiences of being encouraged to thrive for excellence by conducting research that has a great deal of rigour, is original and is highly influential.

The lived experience of excellence emerges as the second highest rated topic in the full academic sample[5] with an agreement score of M=5.13 (N=340). A breakdown by academic career level suggests that mid-career and advanced-career academics score excellence similarly with M=5.22 (N=131) and M=5.24 (N=116) respectively, followed by early-career academics with a score of M=4.97 (N=48). For Professional Services staff[6], the lived experience of excellence emerges with a mean score of M=4.96 (N=62). Figure 2.5 compares the full academic sample with a breakdown by career level and the Professional Services score.

Figure 2.5 Excellence: by career level

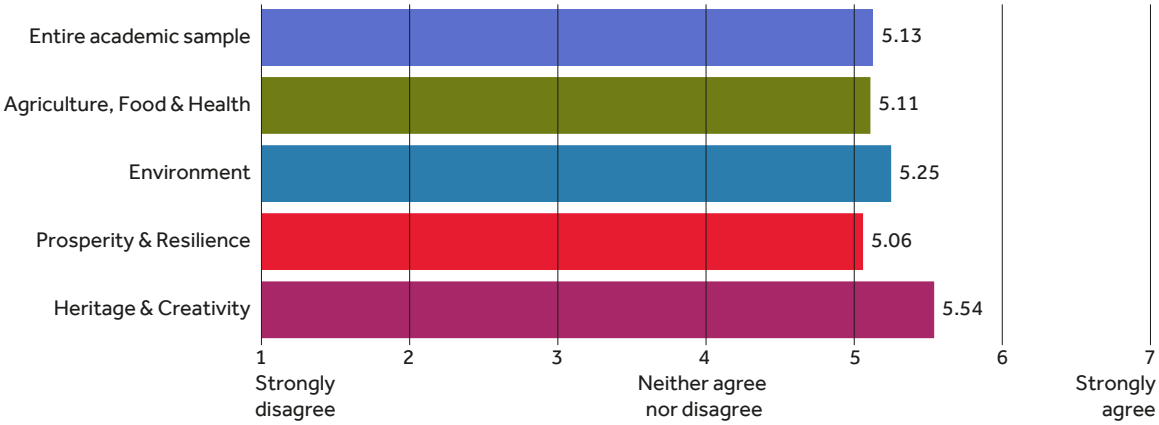


In terms of a breakdown of data by academics belonging to UoR's four research themes, academics in 'Heritage & Creativity' score the theme of excellence highest with M=5.54 (N=56), followed by academics in 'Environment' with M=5.25 (N=68), 'Agriculture, Food & Health' with M=5.11 (N=85) and 'Prosperity & Resilience' with M=5.06 (N=52). Figure 2.6 compares the mean scores of the four research themes with the overall academic sample score.

5 Definition of excellence in terms of the items measuring the lived experiences of academics: 'being encouraged to produce outputs that are highly influential and original; and peers caring that research has a great deal of rigour.'

6 Definition of excellence in terms of the items measuring Professional Services' lived experiences of: 'Defending the University for its reputation on research; academic researchers being encouraged to conduct research that is academically rigorous and practically relevant; and academics being under pressure to publish in highly ranked international journals.'

Figure 2.6 Excellence: by research theme



Looking at excellence as a University-level concept (rather than the lived experiences of staff), staff perceptions are tending towards 5 ('somewhat agree'), but University-level perceptions emerge lower than people's own lived experiences (for both academic staff and Professional Services staff, see Table 2.2).

Table 2.2 University-level perceptions: Excellence

Academic survey	'In my overall experience, the University of Reading has a research culture that encourages research excellence.'	M=4.64 (N=338)
Professional Services survey	'In my overall experience, the University of Reading has a research culture that encourages research excellence.'	M=4.72 (N=60)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[7]

Open-ended comments provide the sentiment that there is some excellent research conducted and that many researchers strive for excellence, while some quotes also suggest that excellence is variable:

'There are some world-class researchers who are dedicated to producing a progressive, supportive, active research environment.'
(Mid-career academic)

'There are a lot of very high-quality researchers around.'
(Unspecified participant)

'Pockets of excellence.'
(Advanced-career academic)

'Excellent pockets of research.'
(Unspecified participant)

7 A number of comments were provided by participants at the end of the survey in an open-ended format. The quotes displayed in each section illustrate typical sentiments related to each topic. The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

Summary

Participants suggest that their working environment generally tends to encourage research excellence. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, people feel more positively about their own working environment thriving for excellence than the University overall.

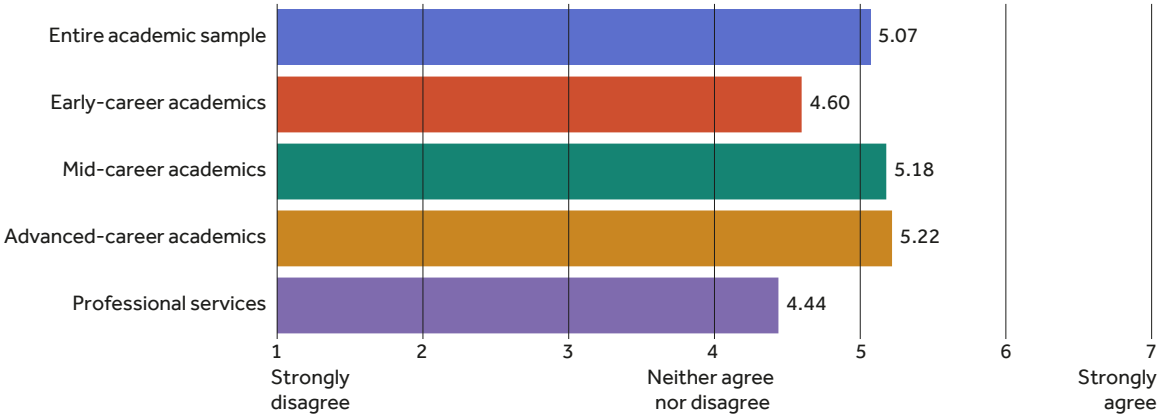
2.3 Collaboration

What is measured in this topic? The survey measured staff experiences of the extent to which they feel working in collaboration is promoted, encouraged, and indeed happening internally and externally.

The lived experience of collaboration emerges as the third highest rated theme in the full academic sample[8] and the final one with a mean score above 5 ('somewhat agree') with an agreement score of M=5.07 (N=338). A breakdown by academic career level reveals that advanced-career academics have the highest mean for experiences of collaboration with M=5.22 (N=115), followed by mid-career academics with a mean score of M=5.18 (N=131) and early career academics with a mean score of M=4.60 (N=47). For Professional Services[9], the lived experience of collaboration emerges with a mean score of M=4.44 (N=64).

Figure 2.7 compares the full academic sample, with a breakdown by career level and the Professional Services score.

Figure 2.7 Collaboration: by career level

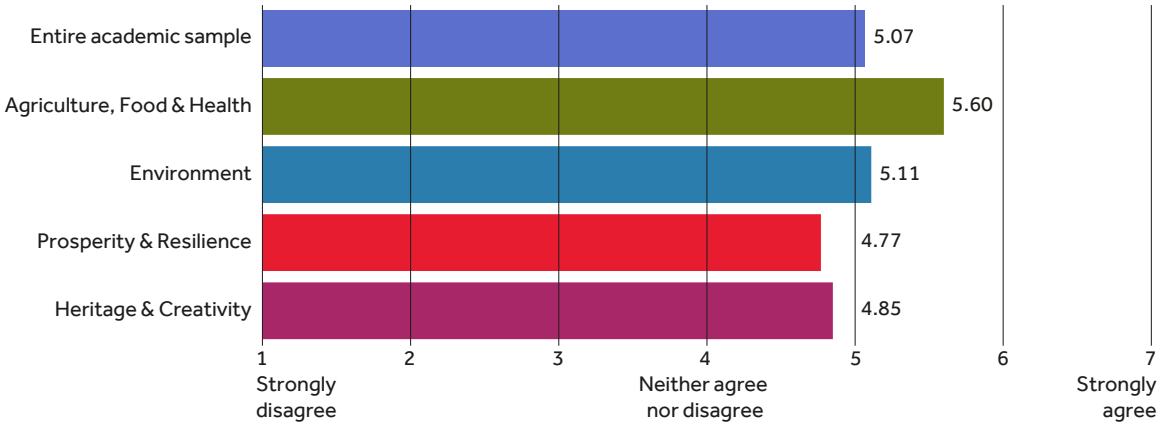


8 Definition of collaboration in terms of the items measuring the lived experiences of academics: 'Conducting collaborative research both within UoR (e.g. with different disciplines and schools) and with external institutions; and being encouraged to engage with collaborative research.'

9 Definition of collaboration in terms of the items measuring the lived experiences of Professional Services staff: 'Working in collaboration, rather than transactionally, with academic researchers; providing the "right type" of support to encourage research collaboration and collaborative research being encouraged.'

Looking at the data by academics belonging to UoR's four research themes, academics in 'Agriculture, Food & Health' display the highest mean score on the theme of collaboration with M=5.60 (N=84), with 'Environment' academics next with M=5.11 (N=68), followed by 'Heritage & Creativity' and 'Prosperity & Resilience' with scores of M=4.85 (N=55) and M=4.77 (N=52) respectively. Figure 2.8 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.8 Collaboration: by research theme



Looking at collaboration as a University-level concept (rather than the lived experiences of staff), academic staff and Professional Services staff appear to have similar ratings – about halfway between 4 and 5 on the 7-point scale, indicating slight agreement. Interestingly, the UoR perceptions of academics are lower than their own lived experiences, while the UoR perceptions of Professional Service staff emerge somewhat similar to their own lived experiences (see Table 2.3).

Table 2.3 University-level perceptions: Collaboration

Academic survey	'In my overall experience, the University of Reading has a collaborative research culture.'	M=4.62 (N=338)
Professional Services survey	'In my overall experience, the University of Reading has a collaborative research culture.'	M=4.53 (N=64)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[10]

A number of comments provided by participants represent the view that many people are open to collaboration within and across schools, albeit some contrary experiences too:

'In general, researchers are open, collaborative and supportive of each other, which is often lacking at other institutions.'
(Professional Services staff)

'Within and across schools there is a willingness to work together.'
(Unspecified)

'Most individual researchers are generally wonderful to work with and supportive.'
(Mid-career academic)

'My academic colleagues are always open to discussions about research when they can find five minutes away from filling in largely pointless forms and pretending to engage with online meetings.'
(Advanced-career academic)

'Generally speaking, many colleagues whether academic or research staff, or from Professional Services, are willing to help if they can, give some of their time, and contribute to the wider good of research success. Having a critical mass of people who are willing to do this helps to make Reading a nice place to work and contributes towards a positive research culture.'
(Professional Services staff)

'I believe that almost all research at UoR happened in a siloed manner even where exchange of ideas and collaboration could be of benefit. This is true within departments, where members of staff can be much more focused on developing their individual publication portfolios than getting to know their colleagues' research and how they may work together. It's also true more broadly, where colleagues from other departments and schools are not willing to open up to the possibility of sharing knowledge and research with others from different fields.'
(Early-career academic)

'Always difficult to avoid silos. I find a lot of research culture reporting goes inwards/towards the centre/higher up, when really could more be shared via peer research group/between departments – I love finding out more about what colleagues are working on!'
(Mid-career academic)

'Lack of coordination of research: Competition instead of collaboration.'
(Advanced-career academic)

'Interdisciplinary work is particularly encouraged, which is one of the reasons why I came to Reading.'
(Early-career academic)

10 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

'The University could do more to present Professional Services staff involved in research as collaborators, emphasising our value, expertise and the influence that we can have on research activity. Research cannot happen without Professional Services staff and that is sometimes not recognised by the researchers. I would like to see a mindset shift from us as a 'service' to being research-adjacent professionals. Could we even change the name of some teams to avoid the term 'service' – this implies that the researcher is the client and we serve their needs. We can be most valuable in developing research when we collaborate with researchers.'
(Professional Services staff)

'My interactions with individual researchers and technical staff have been very positive: there seems to be a genuine will to help each other, share equipment etc, wherever possible.'
(Mid-career academic)

'Insufficient coordination and oversight of individual research agendas – we still largely operate as independent one-man-bands.'
(Advanced-career academic)

Summary

Participants somewhat agree that their working environment encourages collaboration, with mid-career and advanced-career academics scoring their experiences of collaboration higher than early-career academics and Professional Services staff. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, academic staff (with the exception of early-career academics) score collaboration higher in their own environment, while Professional Services staff score collaboration higher at the level of the University.

2.4 Research Integrity

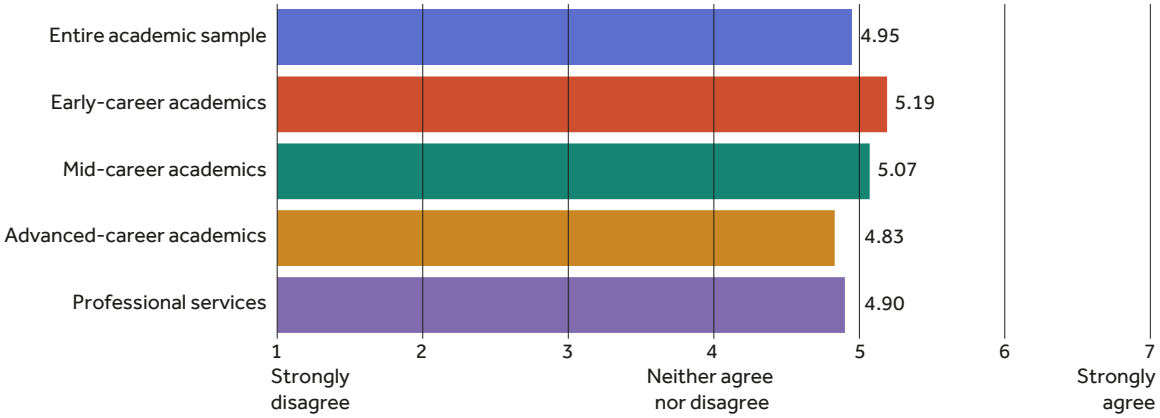
What is measured in this topic? The survey measured staff experiences of whether procedures, policies and actions ensure research integrity.

The lived experience of research integrity receives an agreement score of M=4.95 (N=340) in the full academic sample[11], just below the 'somewhat agree' score. A breakdown by academic career level suggests that lived experiences of research integrity seem to decrease from early-career to mid-career to advanced-career academics, with M=5.19 (N=48) to M=5.07 (N=131) to M=4.83 (N=116), respectively. For Professional Services[12], the lived experience of research integrity emerges with a mean score of M=4.90 (N=60). Figure 2.9 compares the full academic sample, with a breakdown by career level and the Professional Services score.

11 Definition of research integrity in terms of the items measuring the lived experiences of academics: 'procedures, policies and actions that ensure research integrity.'

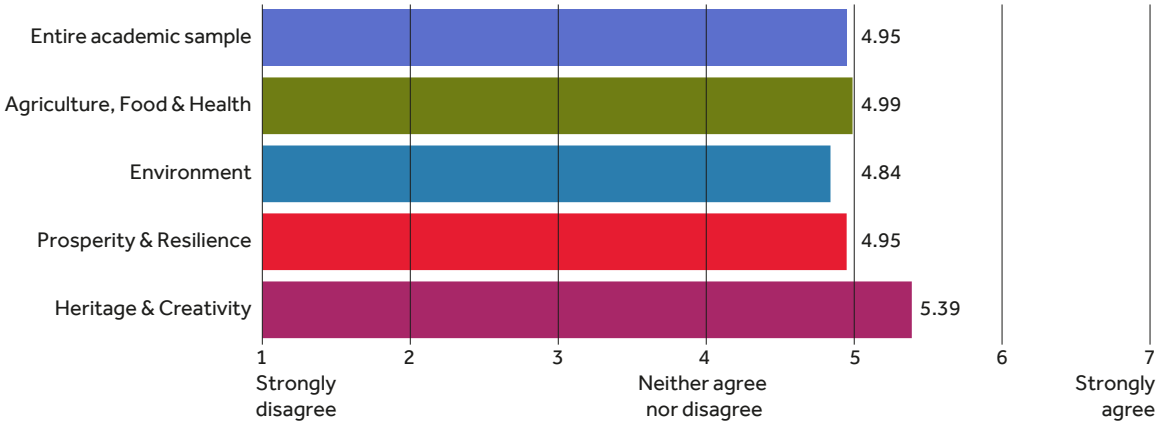
12 Definition of research integrity in terms of the items measuring the lived experiences of Professional Services: 'procedures, policies and actions that ensure research integrity.'

Figure 2.9 Research integrity: by career level



In terms of a breakdown of data by academics belonging to UoR's four research themes, academics in 'Agriculture, Food & Health', 'Prosperity & Resilience' and 'Environment' score their lived experiences of research integrity, on average, just below 5 on the 7-point agreement scale, with M=4.99 (N=85), M=4.95 (N=52) and M=4.84 (N=68), respectively. Academics in 'Heritage & Creativity' score their lived experience of research integrity higher with M=5.39 (N=56). Figure 2.10 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.10 Research integrity: by research theme



In terms of perceptions of research integrity as a University-level concept (rather than the lived experiences of staff), research integrity appears to be scored higher for the University than people's lived experiences (for both academic staff and Professional Services staff, see Table 2.4).

Table 2.4 University-level perceptions: Research integrity

Academic survey	'In my overall experience, research conducted at the University of Reading is carried out with honesty, transparency and integrity.'	M=5.36 (N=339)
Professional Services survey	'In my overall experience, research conducted at the University of Reading is carried out with honesty, transparency and integrity.'	M=5.20 (N=60)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[13]

There weren't many comments provided at the end of the survey, in an open-ended format, that referred to research integrity in particular. However, there were some positive mentions of initiatives related to research integrity, as well as a few examples of practices that may need to be improved.

'ReproducibiliTea and other sessions promote good research practice.'
(Early-career academic)

'Open access for publications, research integrity initiatives.' (Mentions under positive aspects of the UoR's research culture from recent experience.)
(Early-career academic)

'Lack of support for policy compliance on the part of research leaders and managers.'
(Professional Services staff)

'Little interest is taken in the quality of research (as opposed to its capacity for grant-getting and impact).'
(Mid-career academic)

Summary

Participants somewhat agree that current procedures, policies and actions ensure research integrity. While overall perceptions from academic staff and Professional Services staff are similar, within the academic sample perceptions decrease with increasing career levels. Comparing staff perceptions of their own working environment with staff perceptions of research integrity at the University overall, interestingly, people score University-level perceptions higher than experiences in their own working environment (this is different to comparisons in most other topics).

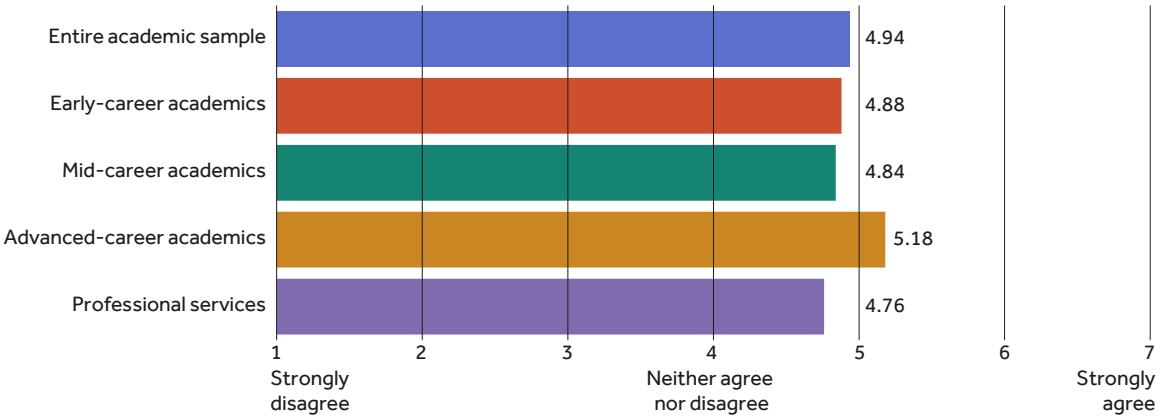
13 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

2.5 Impact

What is measured in this topic? The survey measured staff's impact-related experiences, such as being encouraged to achieve impact, having impact recognised as a legitimate use of research time and having enough information to understand what impact means.

The lived experience of impact receives an average score of M=4.94 (N=340) in the full academic sample[14]. A breakdown by academic career level suggests that advanced-career academics score impact highest with M=5.18 (N=116), followed by similar scores for mid-career academics M=4.84 (N=131) and early-career academics M=4.88 (N=48). For Professional Services[15], the lived experience of impact emerged with a mean score of M=4.76 (N=60). Figure 2.11 compares the full academic sample, with a breakdown by career level and the Professional Services score.

Figure 2.11 Impact: by career level

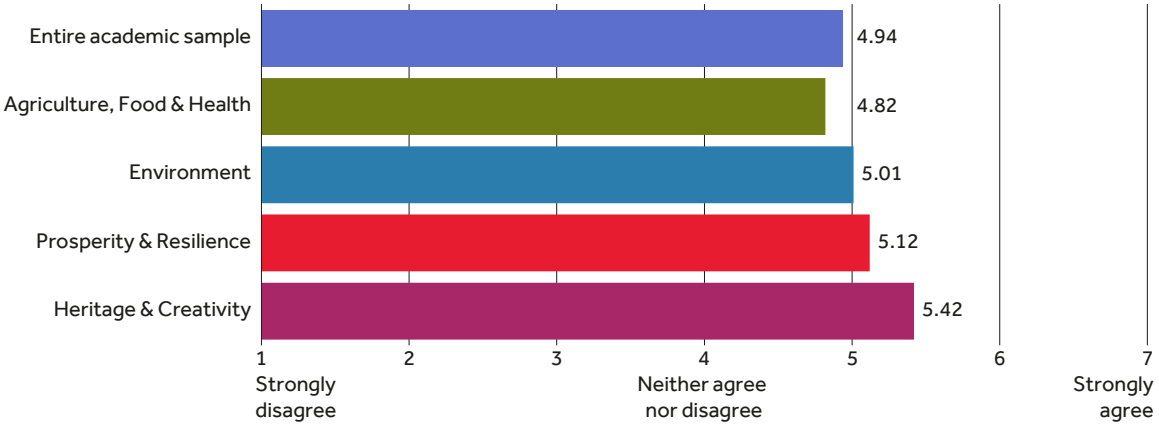


Looking at the breakdown of data by academics belonging to UoR's four research themes, the lived experiences of impact receives mean scores in an ascending order from academics in 'Agriculture, Food & Health' (M=4.82, N=85), 'Environment' (M=5.01, 68), 'Prosperity & Resilience' (M=5.12, N=52) and 'Heritage & Creativity' (M=5.42, N=56). Figure 2.12 compares the mean scores of the four research themes with the overall academic sample score.

14 Definition of impact in terms of the items measuring the lived experiences of academics: 'having enough information to understand what impact means; being encouraged to make an impact on life beyond academia; conducting research that is both academically rigorous and practically relevant; and having impact recognised as a legitimate use of research time.'

15 Definition of impact in terms of the items measuring the lived experiences of Professional Services staff: 'Academic researchers understanding what impact means in their environment; academic researchers being encouraged to make an impact on life beyond academia and having impact recognised as a legitimate use of research time.'

Figure 2.12 Impact: by research theme



In terms of perceptions of impact as a University-level concept (rather than the lived experiences of staff), the scores presented in Table 2.5 appear to be a little lower for academic staff, and a little higher for Professional Services staff than the lived experience scores reported above.

Table 2.5 University-level perceptions: Impact

Academic survey	'In my overall experience, the University of Reading has a research culture that fosters impact.'	M=4.74 (N=340)
Professional Services survey	'In my overall experience, the University of Reading has a research culture that fosters impact.'	M=4.98 (N=60)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[16]

Impact is mentioned as a positive aspect of research culture in a number of comments provided by participants at the end of the survey, while some respondents also reported concerns, for example, that impact was not adequately appreciated.

'I feel that the uni is very supportive of my colleagues who do impact-based research and who are successful in funding bids.'
(Mid-career academic)

'Celebrating research excellence through the engagement and impact awards.' (Mentioned under positive aspect.)
(Professional Services staff)

'The University wants research to have impact but then does not provide time or proper support (the impact time and business development manager are great but they are under funded/lack time) for this when someone has a funded project with high impact potential.'
(Mid-career academic)

16 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

'In the social sciences, which is my area, our research is important mainly because it educates people who, like me, teach in higher education. All other "impact" that researchers try to have is pretty negligible. Anything the University can do to resist the government's efforts to make our research "policy-relevant" would help me better support the research culture.'
(Early-career academic)

Summary

Participants somewhat agree that impact is encouraged, understood and seen as a legitimate use of research time, with advanced-career academics emerging highest and the only group to score impact above the 'somewhat agree' level of 5. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, academic staff score impact higher in their own working environment compared to the University overall, while Professional Services staff score impact at the University-level higher than in their working environment.

2.6 Equality, Diversity and Inclusion

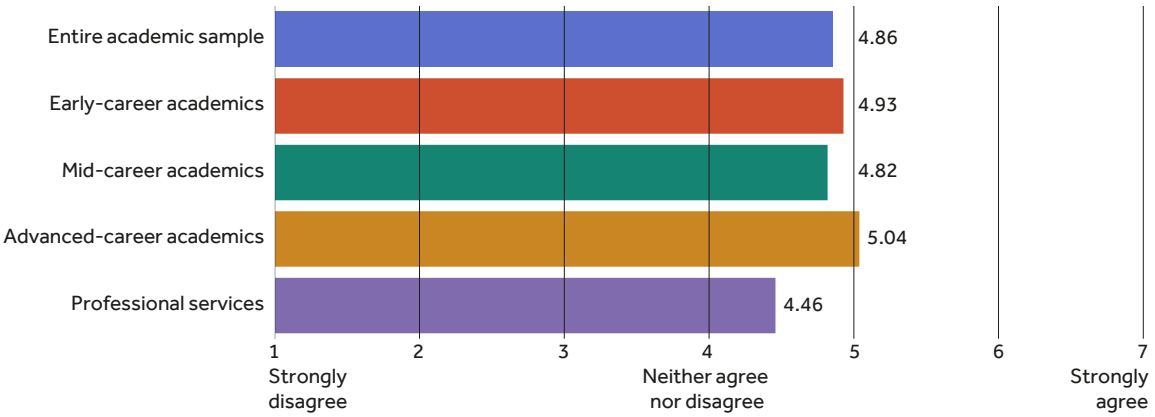
What is measured in this topic? The survey measured staff experiences of being heard and included, experiences of positive support for people with protected characteristics and caring responsibilities and whether staff agree that discrimination is not tolerated.

The lived experience of equality, diversity and inclusion receives an average score of M=4.86 (N=336) in the full academic sample[17]. A breakdown by academic career level reveals scores of M=4.93 (N=48) for early-career academics, M=4.82 (N=131) for mid-career academics and M=5.04 (N=116) for advanced-career academics. For Professional Services[18], the lived experience of equality, diversity and inclusion emerges lower, with a mean score of M=4.46 (N=56). Figure 2.13 compares the full academic sample with a breakdown by career level and the Professional Services score.

17 Definition of equality, diversity and inclusion in terms of the items measuring the lived experiences of academics: 'Positive support for people with protected characteristics and caring responsibilities; being included and heard; and discrimination against researchers not being tolerated.'

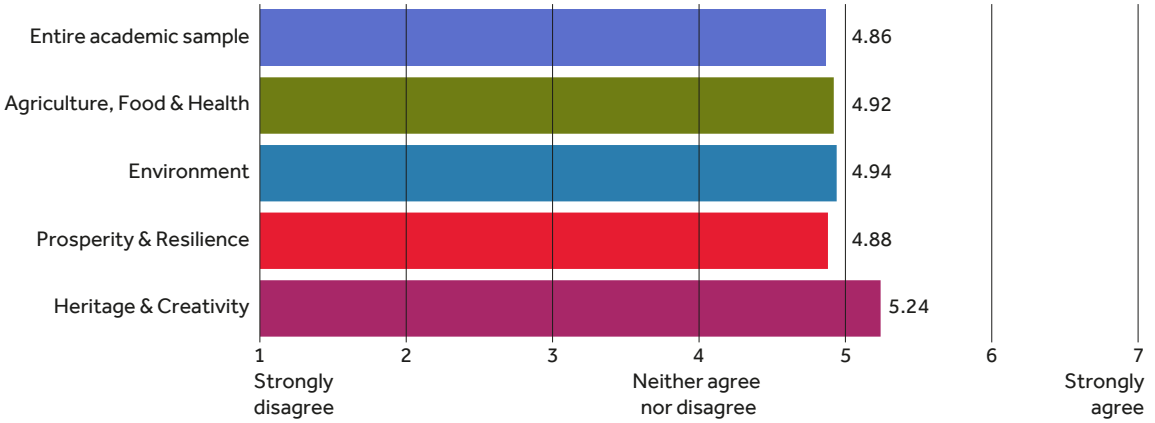
18 Definition of equality, diversity and inclusion in terms of the items measuring the lived experiences of Professional Services staff: 'Positive support for people with protected characteristics and caring responsibilities; being included and heard; and discrimination against researchers and research support staff not being tolerated.'

Figure 2.13 Equality, diversity and inclusion: by career level



In terms of a breakdown of data by academics belonging to UoR's four research themes, 'Heritage & Creativity' appears to have the highest score of M=5.24 (N=56), while the remaining three themes seem to score fairly similarly: 'Agriculture, Food & Health' (M=4.92, N=85), 'Environment' (M=4.94, N=68), 'Prosperity & Resilience' (M=4.88, N=52). Figure 2.14 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.14 Equality, diversity and inclusion: by research theme



In terms of perceptions of equality, diversity and inclusion as a University-level concept (rather than the lived experiences of staff), Professional Services staff provide a higher overall mean score than academic staff, and a higher score than their own lived experiences (see Table 2.6).

Table 2.6 University-level perceptions: Equality, diversity and inclusion

Academic survey	'In my overall experience, the current University of Reading policies are improving equality, diversity and inclusion.'	M=4.62 (N=335)
Professional Services survey	'In my overall experience, the current University of Reading policies are improving equality, diversity and inclusion.'	M=5.29 (N=56)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[19]

There were a larger number of in-depth comments relating to this topic compared with many of the other topics, and also a spread of opinion. To give a sense of the nature of these comments and their variability, we outline several quotes below. Some respondents share positive experience of equality, diversity and inclusion, while others raise concerns particularly around gender equality and caring responsibilities:

'Openness is encouraged both in terms of open research outputs but also in terms of making changes to policies and procedures. Opinions from a wide variety of staff are taken on board and I have never felt that a suggestion I've had has been shut down without a discussion.'
(Professional Services staff)

'Talks, meetings and research seminars now being held online which makes it easier for people with caring responsibilities to attend.'
(Mid-career academic)

'Greater promotion of PDRA activities, diversity and inclusion.'
(Mid-career academic)

'It's very inclusive.'
(Mid-career academic)

'Gender discrimination (by males and females) happen in subtle ways so it needs to be audited closely. This means looking at things like workload allocations/FTE for teaching equivalent courses, teaching on UG programmes with larger classes, more marking, student issues to deal with to see who is doing most of that work and who is getting most of the conference grants. There are men who are vocal and who lobby behind the scenes to push ideas on people and get their own way. This not only silences women and marginalises their views, but the resulting decisions are often to women's disadvantage.'
(Mid-career academic)

'Failed promotion attempt due to recent maternity leave felt discriminatory. Focus on negative feedback during internal proposal review rather than a balance of positive and negative feedback.'
(Early-career academic)

19 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

'Lack of transparency in decision-making and biased and unequal support provided to individuals. Not everyone is offered opportunities and supported equally when trying to achieve goals. Lack of robust support teams, individual people can be excellent but are overworked and every day there is more and more paperwork and steps, often absurd and always very time consuming.'
(Early-career academic)

'Don't overload female research staff with more teaching responsibilities than male staff.'
(Mid-career academic)

'The University needs to do more to support staff who do research and who have care commitments.'
(Mid-career academic)

'Discretion on how to manage research issues within the school can result into unequal and discriminatory treatment, better oversight of school decisions and culture would improve research culture. There is very little open discussion of overlapping demands of work.'
(Unspecified participant)

'Not much flexibility sometimes around deadlines and arranging one's work–life balance would be good to more clearly acknowledge the pressures that people with caring responsibilities face (looking after young families, elderly parents).'
(Advanced-career academic)

Summary

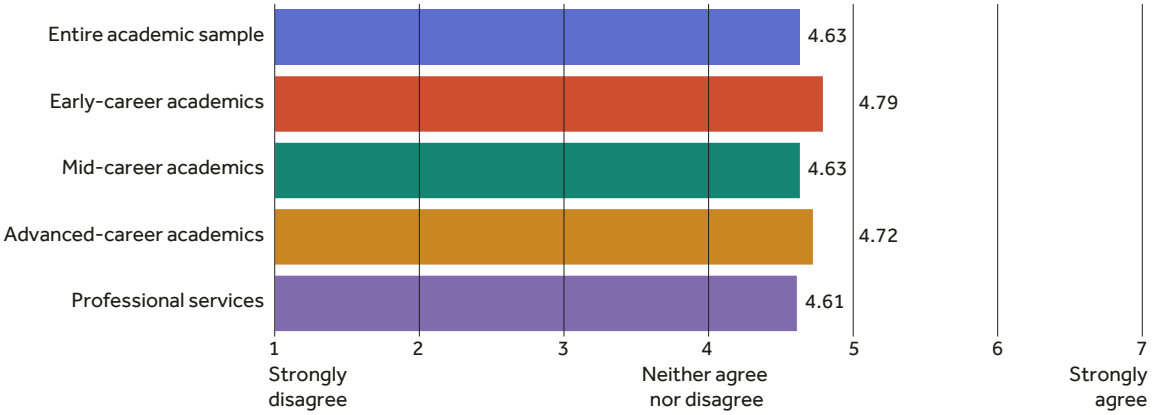
Participants somewhat agree that they are included and heard, that discrimination is not tolerated and positive support to foster equality and diversity is provided. While the academic staff score (both overall and broken down into career-levels) emerges lower but close to the 'somewhat agree' score of 5, Professional Services staff provide a score half-way between the 'neither agree nor disagree' score of 4 and 'somewhat agree' of 5. Interestingly, when comparing staff perceptions of their own working environment with staff perceptions of the University overall, academic staff score equality, diversity and inclusion higher in their own working environment compared to the University overall, while Professional Services staff score equality, diversity and inclusion considerably higher at the University than in their own working environment.

2.7 Research Leadership

What is measured in this topic? The survey measured staff experiences of being encouraged to develop personal research leadership skills and witnessing good leadership skills in others.

The lived experience of research leadership receives an average score of M=4.63 (N=337) in the full academic sample[20]. A breakdown by academic career level suggests relatively similar scores across levels, with early-career academics scoring M=4.79 (N=48), mid-career academics scoring M=4.63 (N=131) and advanced-career academics scoring 4.72 (N=116). For Professional Services[21], the lived experience of research leadership emerged with a mean score of M=4.61 (N=57). Figure 2.15 compares the full academic sample, with a breakdown down by career level and the Professional Services score.

Figure 2.15 Research leadership: by career level

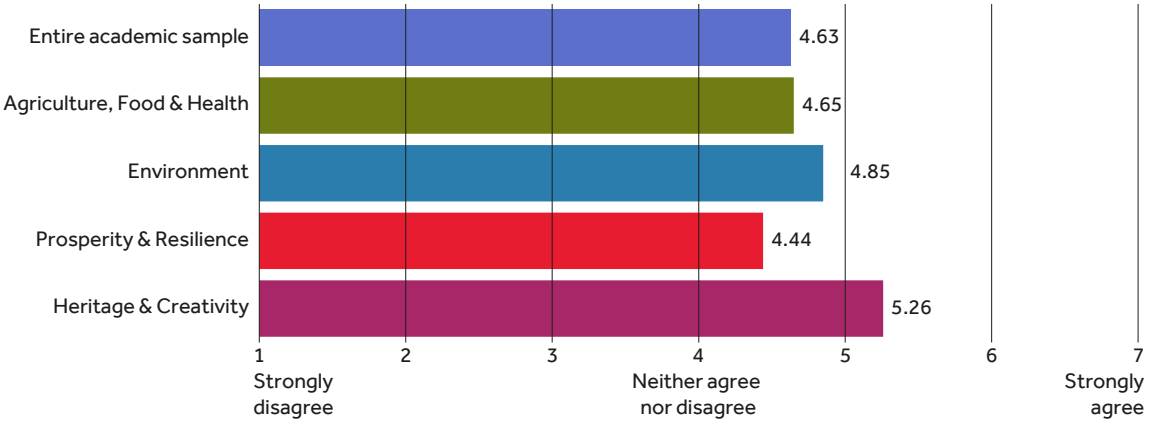


Looking at the data by academics belonging to UoR's four research themes, lived experiences of research leadership receive mean scores in descending order from 'Heritage & Creativity' (M=5.26, N=56), 'Environment' (M=4.85, N=68), 'Agriculture, Food & Health' (M=4.65, N=85) and 'Prosperity & Resilience' (M=4.44, N=52). Figure 2.16 compares the mean scores of the four research themes with the overall academic sample score.

20 Definition of research leadership in terms of the items measuring the lived experiences of academics: 'being encouraged to develop personal leadership skills and witnessing good leadership skills at the school level.'

21 Definition of research leadership in terms of the items measuring the lived experiences of Professional Services staff: 'being encouraged to develop personal leadership skills in professional services, and witnessing good leadership skills from professional services leaders, schools, divisions and researchers.'

Figure 2.16 Research leadership: by research theme



In terms of perceptions of research leadership as a University-level concept (rather than staff's lived experiences), research leadership is scored close to the mid-point of 4 in the 7-point agreement scale ('neither agree nor disagree') by academic staff, while Professional Services staff provide a slightly higher score (see Table 2.7). Please note that the wording for the leadership questions differ on this topic between the lived experience of staff and University-level experience, in that University-level perceptions ask specifically about staff's perceptions of senior leaders at the University, while lived experiences questions focus on leadership skills and development at a local level (see footnotes 20 and 21).

Table 2.7 University-level perceptions: Research leadership

Academic survey	'In my overall experience, senior leaders at the University of Reading are effective in building a positive research culture.'	M=4.05 (N=337)
Professional Services survey	'In my overall experience, senior leaders at the University of Reading are effective in building a positive research culture.'	M=4.39 (N=56)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[22]

Research leadership is widely seen as an important factor in defining research culture, as indicated in a substantial number of comments at the end of the survey reporting on both good experiences of leadership as well as more critical observations:

'Poor departmental research lead/leadership can kill the support from the University.'
(Mid-career academic)

'The meetings with my RDL, a person who understands the particularities, values, and structure of my own research environment, which makes them supportive and insightful, comparing to the centrally generated messages that have no effect or relevance to what I am doing and to which I own my reputation in academia.'
(Early-career academic)

'I find my interaction with other RDLs, my Head of School, and the research deans, very productive.'
(Mid-career academic)

'Our research dean (...) spends a lot of time and effort matching up researchers with similar interests. ...genuinely cares about and is invested in the research within the theme, and has a lot of time and compassion to support researchers.'
(Mid-career academic)

'There is a lot of positive intent I believe and some good people trying their best. Some leaders that are very approachable (like ...).'
(Advanced-career academic)

'It is not specific to Reading, but there has been a tendency to become top down, and not recognise that most academics will do their best in research given they have the time. It also has an overly narrow focus on what can be measured (mostly money because it is the easiest to measure) and naive attempts at quantification because it suits managers to pretend they have meaningful measures. Almost any discussion about research will usually segue into research funding which is not the same thing.'
(Advanced-career academic)

'Top down and over managed. My own personal and general sense is a flurry of acronym heavy help that justifies layers of institutional structure, rather than helps me develop genuinely complex and innovative research.'
(Mid-career academic)

'The University has lost its way a bit, (...). Management practices in certain areas have been woeful with leadership absent and heads often buried in the sand. But the workforce is loyal, talented and deserves better. Many colleagues have already left taking with them talent and expertise – there is now a chance to listen, to do things differently, to rebuild. Think more STRATEGICALLY and cascade objectives so we can all buy into the vision. Invest in LEADERS and reward INNOVATION and TALENT. LISTEN more and show how much you CARE.'
(Professional Services staff)

22 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

Summary

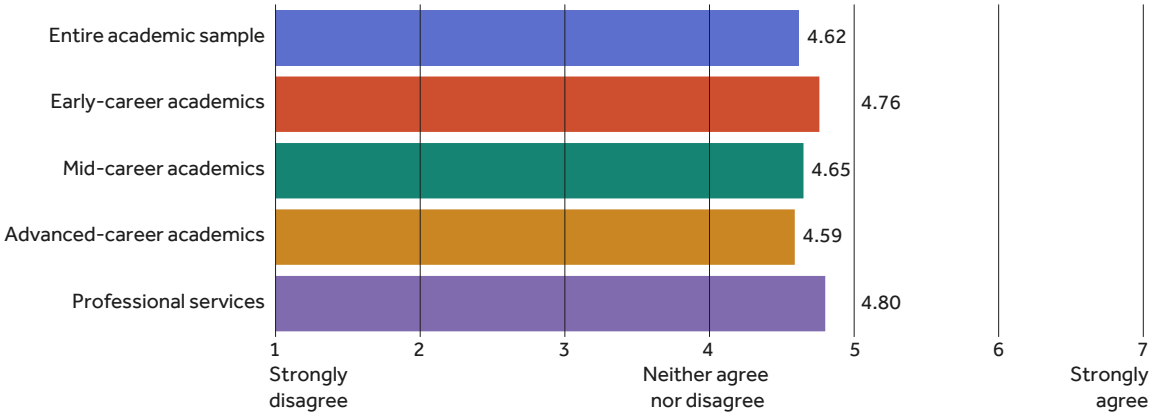
Participants tend to somewhat agree that they are encouraged to develop leadership skills and that they observe good research leadership around them. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, it needs to be noted that University-level questions ask specifically about perceptions of the effectiveness of senior leaders to build a positive research culture, which is a different focus from questions related to staff's own environment. Staff perceptions of senior leader effectiveness in building a positive research culture emerge lower than scores for research leadership in people's own environment. This is even more pronounced in the Professional Services staff scores.

2.8 Ambition

What is measured in this topic? The survey measured staff experiences of aspiring research goals being set and followed as well as a sense that researchers are encouraged to be ambitious.

The lived experience of ambition receives an average score of M=4.62 (N=340) in the full academic sample[23]. A breakdown by academic career level reveals similar mean scores across levels: early-career academics M=4.76 (N=48), mid-career academics M=4.65 (N=131), advanced-career academics M=4.59 (N=116). For Professional Services[24], the lived experience of ambition emerged with a mean score of M=4.80 (N=62). Figure 2.17 compares the full academic sample, with a breakdown down by career level and the Professional Services score.

Figure 2.17 Ambition: by career level

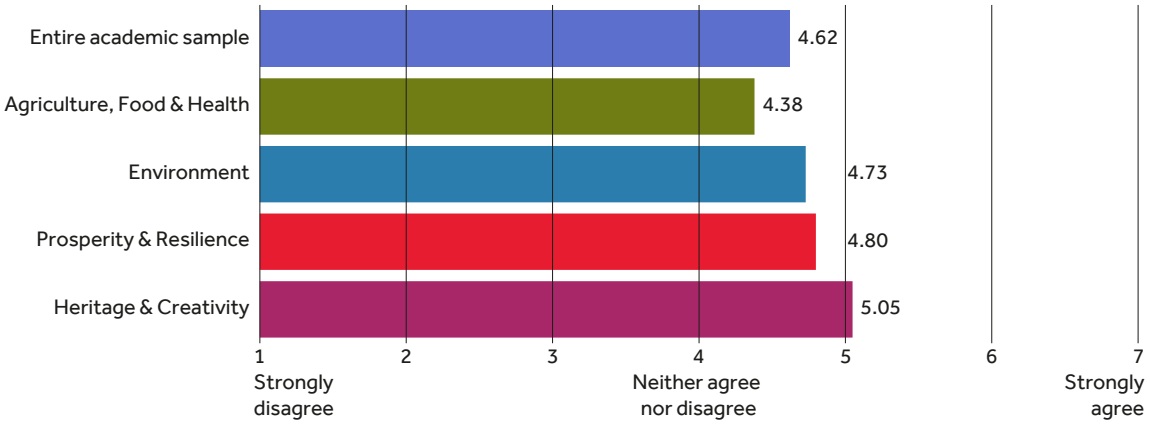


23 Definition of ambition in terms of the items measuring the lived experiences of academics: 'Peers striving for aspiring research goals; being encouraged to set challenging personal research targets and being ambitious when it comes to research.'

24 Definition of ambition in terms of the items measuring the lived experiences of Professional Services staff: 'Academic researchers striving for aspiring research goals and being encouraged to be ambitious when it comes to research.'

Looking at the data by academics belonging to UoR's four research themes, the lived experiences scores related to ambition are presented in ascending order, starting with a mean score of M=4.38 (N=85) in 'Agriculture, Food & Health', a score of M=4.73 (N=68) in 'Environment', M=4.80 (N=52) in 'Prosperity & Resilience' and M=5.05 (N=56) in 'Heritage & Creativity'. Figure 2.18 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.18 Ambition: by research theme



In terms of perceptions of ambition as a University-level concept (rather than the lived experiences of staff), both academic staff and Professional Services staff provide mean scores close to the 'neither agree nor disagree' mid-point of the 7-point scale (see Table 2.8).

Table 2.8 University-level perceptions: Ambition

Academic survey	'In my overall experience, the University of Reading is highly ambitious when it comes to research.'	M=4.06 (N=340)
Professional Services survey	'In my overall experience, the University of Reading is highly ambitious when it comes to research.'	M=4.19 (N=62)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[25]

Respondents voiced mixed views about ambition at the end of survey comments section. Some respondents reported a strong sense of ambition at both the local and University level, while others reported a lack of ambition and lack of accountability around ambition. Others, again, reported a strong sense of ambition but a scepticism about whether research ambitions can be achieved:

> 'Ambitious committed colleagues create initiatives to support research culture.'
> (Early-career academic)

> 'Lots of low quality and unrealistic research that is disconnected from the wider context and is unlikely to be worthwhile. This is also reflected through a high proportion of underfunded and uncompetitive research that costs money to conduct without any likely benefit.'
> (Mid-career academic)

> 'Low expectations in terms of level of research activity and outputs. Little appears to be done to challenge individuals who underperform and support them to address it.'
> (Professional Services staff)

> 'Our ambitions do not match the time available to spend on research activity, due to the ever-increasing time that needs to be spent on everything else.'
> (Advanced-career academic)

> 'Identify realistic expectations about what is institutionally valuable in research, i.e. prioritise quality over quantity. Relentless expectations about quantity (outputs, research grant applications) incentivises gaming, resulting in a proliferation of solid 3* outputs that do nothing for the world and a proliferation of low-likelihood research grant applications which enable people to tick the box.'
> (Mid-career academic)

Summary

Participants tend to somewhat agree that ambitious research targets are encouraged and pursued, with some variations between research themes. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, participants in both the academic sample and the Professional Services sample believe the University is less ambitious than the researchers in their own working environment.

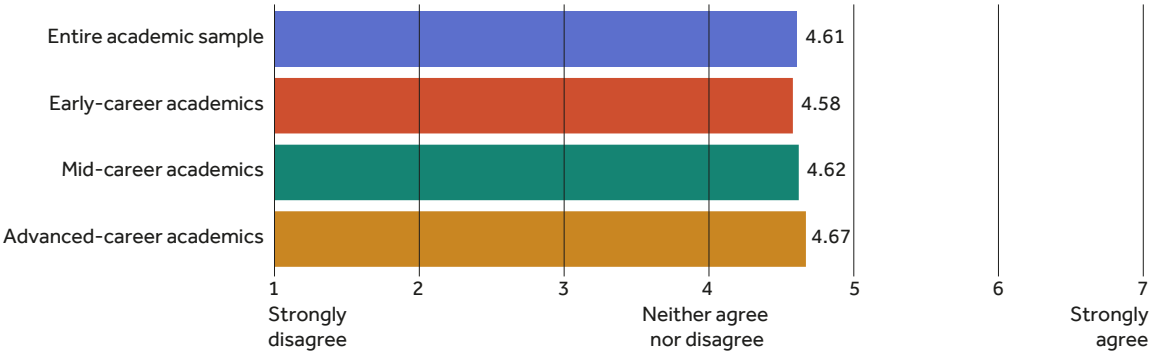
25 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

2.9 Support from Professional Services

What is measured in this topic? The survey measured academic staff experiences of receiving useful support from Professional Services when conducting research and when applying for research grants.

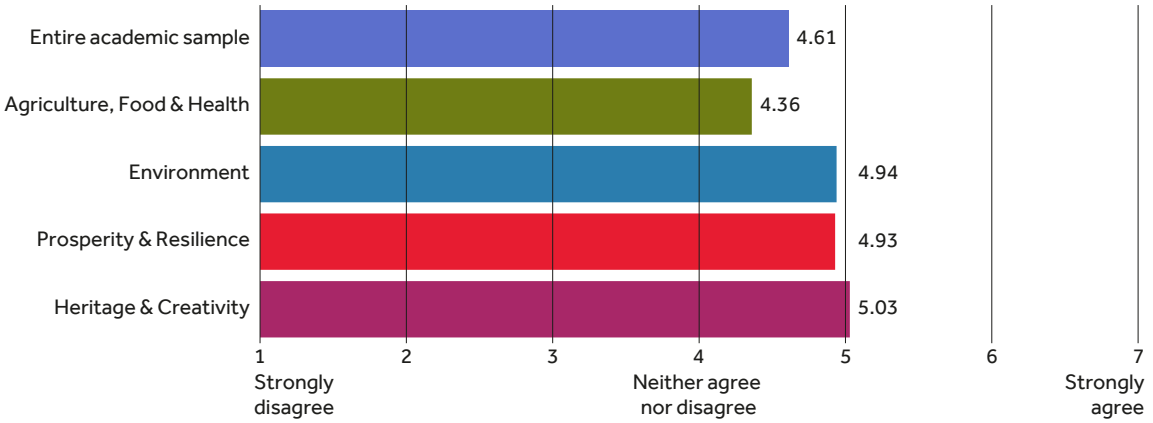
The lived experience of support from Professional Services receives an average score of M=4.61 (N=339) in the full academic sample[26]. A breakdown by academic career level reveals similar scores across levels: early-career academics M=4.58 (N=48), mid-career academics M=4.62 (N=131), advanced-career academics M=4.67 (N=115). Figure 2.19 compares the full academic sample, with a breakdown by career level.

Figure 2.19 Professional Services support: by career level



Looking at the breakdown of data by academics belonging to UoR's four research themes, lived experiences scores related to support from Professional Services return similar scores in the three themes of: 'Environment' (M=4.94, N=68), 'Prosperity & Resilience' (M=4.93, N=52) and 'Heritage & Creativity' (M=5.03, N=55), while 'Agriculture, Food & Health,' with M=4.36 (N=83), returns a lower score. Figure 2.20 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.20 Professional Services support: by research theme



26 Definition of support from Professional Services in terms of the items measuring the lived experiences of academics: 'Receiving useful support in applying for research grants and conducting research.'

Unlike previous sections, a comparison between lived experiences and perceptions at UoR-level cannot be provided here as explained in the data analysis section of this report.

Illustrative comments[27]

There are a number of comments that relate positively to the lived experience of Professional Service support. Many of these comments relate to the positive experiences of Professional Services in terms of support with grant writing, impact and increasing the engagement of staff. There are also comments that signal a desire for better post-grant support.

> 'Professional Services staff in the P&R office are excellent and are always on hand to support grants and impact activities. At a previous institution this was non-existent if you were not a senior colleague.'
> (Early-career academic)

> 'Excellent pre-award support in developing grants, with staff in RES able to provide timely and helpful advice in preparing of budgets and understanding processes, and willing to respond to changes in budgets.'
> (Advanced-career academic)

> 'My colleagues in RES have been superb in supporting this, and the internal engagement within the School – and with other schools where we have relationships – has been really beneficial.'
> (Mid-career academic)

> 'Complete lack of post-award support – delays and inefficiencies badly disrupting projects – often brought about by new systems such as e-Marketplace that are supposed to enhance efficiency but have completely the opposite effect. Portfolio Pathway Review that has doubled teaching workloads for all T&R staff in the division/department.'
> (Unspecified)

> 'Great help at University level in preparing and improving funding applications.'
> (Unspecified)

> 'Post-award support is poor, leading to difficulties transferring money to project partners on time, contracts, and far more. It is unprofessional and makes us look amateur to collaborative partners.'
> (Mid-career academic)

Summary

Participants tend to somewhat agree that they receive useful support from Professional Services when conducting research and applying for research grants.

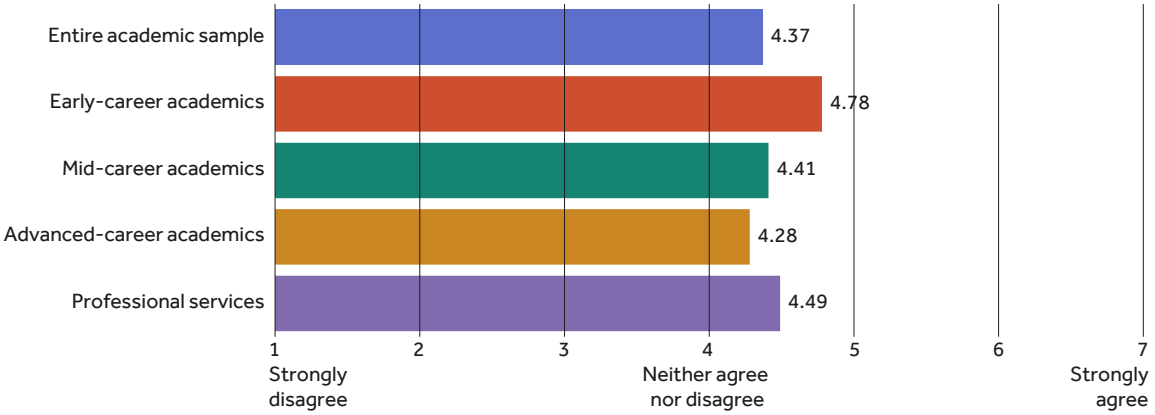
27 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

2.10 Support at a Personal Level

What is measured in this topic? The survey measured staff experiences of the personal support they feel they get, including support in developing their careers, positive developmental discussions and mentorship and sense that successes are being celebrated.

The lived experience of support at a personal level receives an average score of M=4.37 (N=340) in the full academic sample[28]. A breakdown by academic career level reveals that early-career academics return higher mean scores when compared to more advanced career stages: early-career academics M=4.78 (N=48), mid-career academics M=4.41 (N=132), advanced-career academics M=4.28 (N=115). For Professional Services[29], the mean score of the lived experience of support at a personal level is M=4.49 (N=64). Figure 2.21 compares the full academic sample with a breakdown by career level and the Professional Services score.

Figure 2.21 Personal support: by career level

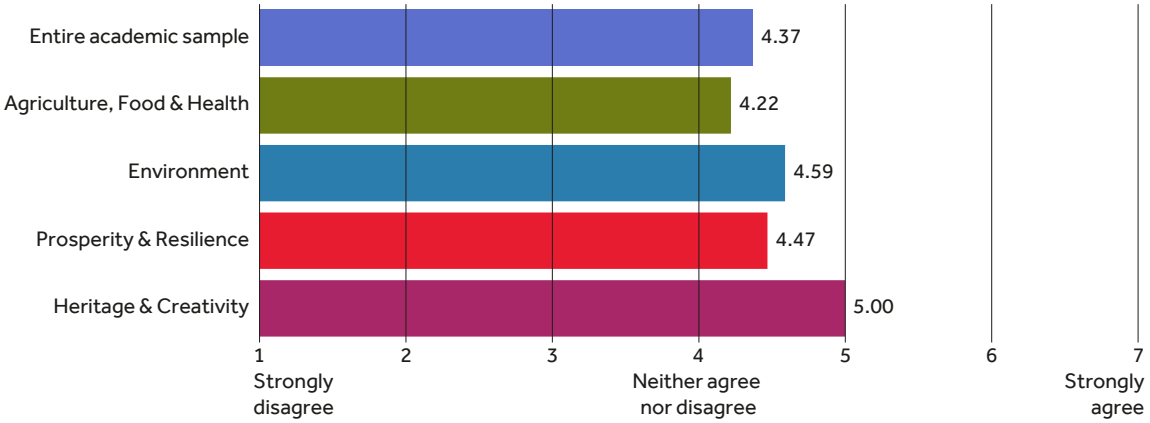


Looking at the breakdown of data by academics belonging to UoR's four research themes, lived experiences scores related support at a personal level and emerge in ascending order from 'Agriculture, Food & Health' (M=4.22, N=88), to 'Prosperity & Resilience' (M=4.47, N=52), to 'Environment' (M=4.59, N=68) to 'Heritage & Creativity' (M=5.00, N=55). Figure 2.22 compares the mean scores of the four research themes with the overall academic sample score.

28 Definition of support at a personal level in terms of the items measuring the lived experiences of academics: 'Positive developmental discussions with managers and mentors related to research; experiences of research successes being celebrated; and being supported to develop a career in research.'

29 Definition of support at a personal level in terms of the items measuring the lived experiences of Professional Services staff: 'Positive developmental discussions with managers and support in developing a career in professional services; experiences of research successes that Professional Services staff have helped with are being celebrated; useful training opportunities provided.'

Figure 2.22 Personal support: by research theme



In terms of perceptions of support as a University-level concept (rather than the lived experiences of staff), both academics and Professional Services staff score the overall support question a little lower than their own lived experiences of personal support (see Table 2.9).

Table 2.9 University-level perceptions: Support

Academic survey	'In my overall experience, the University of Reading has a supportive research culture'	M=4.15 (N=339)
Professional Services survey	'In my overall experience, the University of Reading has a supportive research culture.'	M=4.34 (N=64)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[30]

There were a substantial number of comments in the end of survey open-ended questions about support at a personal level. Many of these quotes highlight the value of the support by managers, research division leaders and mentors. However, some respondents reported a lack of personal support, signalling those perceptions of personal support vary.

'I have been very well-supported by the school and the research division, and I also [think] the digital humanities is a great initiative.'
(Early-career academic)

'Mentorship can be a positive aspect of research culture where some more senior mentors do feel very connected to and responsible for more junior colleagues and share knowledge along with advice to support junior colleagues and ECRs.'
(Early-career academic)

'My mentor has been supportive in acknowledging the lack of time staff get to do research.'
(Mid-career academic)

'People can be left out and they don't always know where to find support and help.'
(Mid-career academic)

30 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

Summary

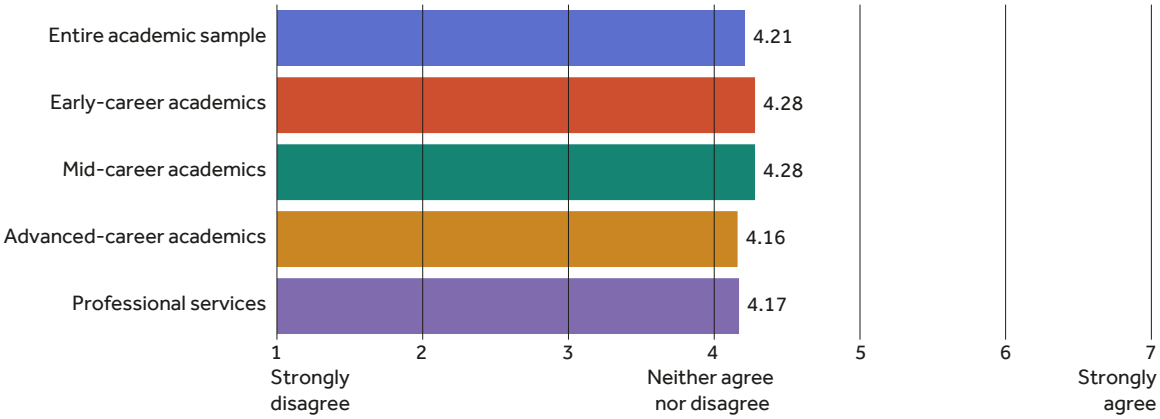
Participants tend to slightly agree that they receive personal support, such as developmental discussions and career-related support. Early-career academics indicate a somewhat higher score than other academic career levels. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, participants in both the academic sample and the Professional Services sample score perceptions of a supportive research culture at the University lower than the support they get in their own working environment.

2.11 Recognition

What is measured in this topic? The survey measured staff experiences of receiving praise and recognition for their research-related contributions.

The lived experience of recognition receives an average score of M=4.21 (N=338) in the full academic sample[31]. A breakdown by academic career level reveals similar scores across levels: early-career academics M=4.28 (N=48), mid-career academics M=4.28 (N=131), advanced-career academics M=4.16 (N=116). For Professional Services[32], the lived experience of recognition emerges with a mean score of M=4.17 (N=59). Figure 2.23 compares the full academic sample with a breakdown by career level and the Professional Services score.

Figure 2.23 Recognition: by career level

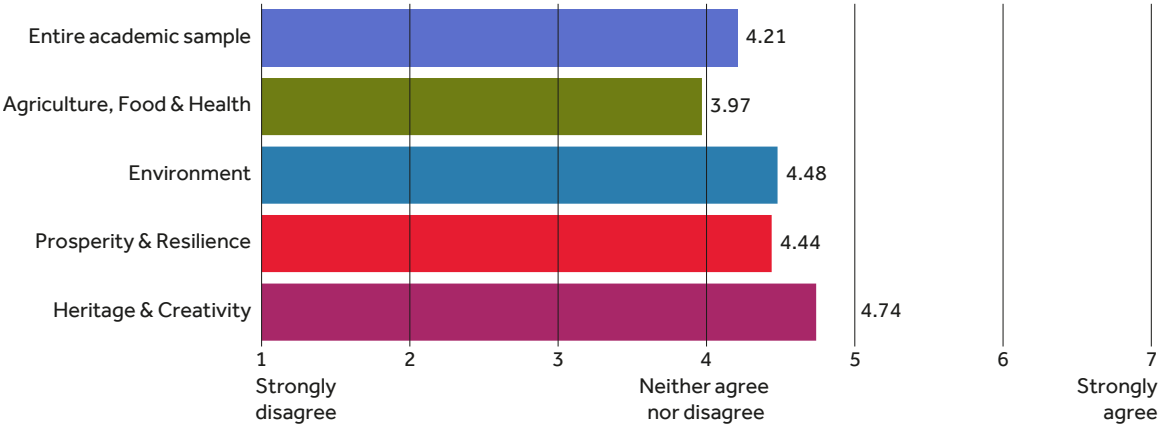


Looking at the breakdown of data by academics belonging to UoR's four research themes, academics in 'Agriculture, Food & Health' provide the lowest score of M=3.97 (N=85), with academics in 'Environment' and 'Prosperity & Resilience' providing similar scores of, M=4.48 (N=68) and M=4.44 (N=52), respectively, and academics in 'Heritage & Creativity' providing a higher score of M=4.74 (N=56). Figure 2.24 compares the mean scores of the four research themes with the overall academic sample score.

31 Definition of recognition in terms of the items measuring the lived experiences of academics: 'Receiving praise and recognition for research; and research being recognised for the contribution it makes to the wider University community.'

32 Definition of recognition in terms of the items measuring the lived experiences of Professional Services staff: 'Receiving recognition for contributions to research successes and research culture; receiving appropriate praise from my function, researchers and researchers for work that is done.'

Figure 2.24 Recognition: by research theme



In terms of perceptions of recognition as a University-level concept (rather than staff's lived experiences), both academics and Professional Services staff provide mean scores close to the 'neither agree nor disagree' mid-point of the 4-point scale (see Table 2.10).

Table 2.10 University-level perceptions: Recognition

Academic survey	'In my overall experience, the University of Reading recognises research achievements appropriately.'	M=4.11 (N=338)
Professional Services survey	'In my overall experience, the University of Reading recognises research achievements appropriately.'	M=4.17 (N=58)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[33]

Many respondents reported good examples of recognition and cited awards, newsletters, emails and events in the open-ended questions at the end of the survey, while others signalled a desire for more recognition – the verbatim comments at the end of the survey reveal a mixed sentiment for this topic.

'Research recognition received and lauded.' (Mention of positive aspect.)
(Early-career academic)

'Reading is excellent about celebrating the achievements of staff, through formal schemes and informally through emails celebrating accomplishments.'
(Early-career academic)

'Acknowledging successes through newsletters.' (Mention of positive aspect.)
(Early-career academic)

'Recognition of excellence through awards.' (Mention of positive aspects.)
(Mid-career academic)

33 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

'Celebratory events for research that are good to hear and see.' (Mention of positive aspects.)
(Mid-career academic)

'In many ways, the "rules of the game" are clear and there is generally a good alignment of incentives to do research in that good things will eventually happen to those who produce good quality research.'
(Mid-career academic)

'Greater recognition of the importance of Professional Services in supporting research.'
(Professional Services staff)

'Build a work environment where people feel appreciated and rewarded if they do well.'
(Mid-career academic)

'Recognise individual research that does not fit current trends (originality). Praise insertion of researchers in national and international networks/ collaborations, i.e. beyond Reading.'
(Advanced-career academic)

'Do more to recognise, promote and value research beyond science and climate.'
(Advanced-career academic)

'Valuing research even if it's not top-quality, and not REF-impactful.'
(Advanced-career academic)

'Better recognition and rewards for research "excellence" beyond how much money is obtained through research grants.'
(Advanced-career academic)

Summary

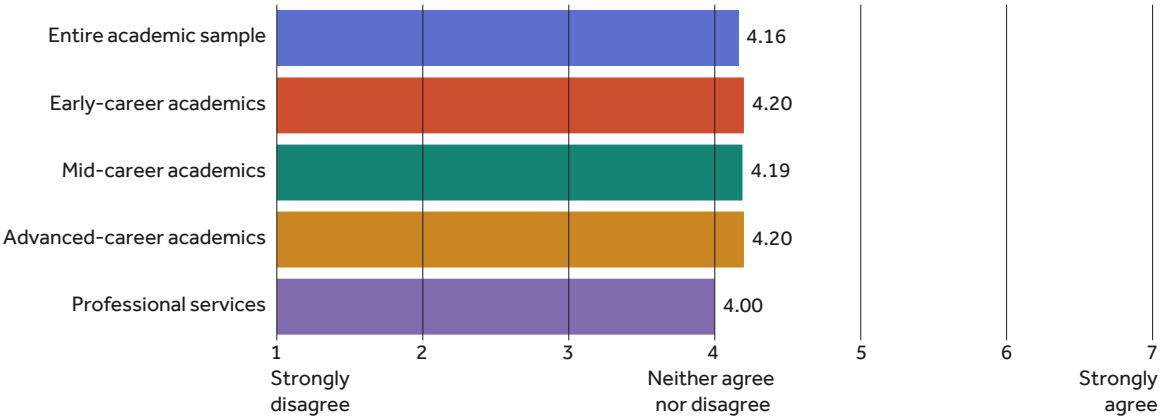
Participants answered, on average, slightly above the midpoint of 'neither agree nor disagree' on whether they feel they are being recognised and praised for their research and/or research-related contributions, with very little variation between academic career levels and Professional Services staff. When comparing staff perceptions of their own working environment with staff perceptions of the University overall, participants in both the academic sample and the Professional Services sample also respond close to 'neither agree nor disagree' on whether the University recognises research achievements appropriately, with academic staff indicating a slightly lower score than in their own working environment and Professional Services staff providing equal scores.

2.12 Risk

What is measured in this topic? The survey measured staff experiences of being encouraged to develop and/or support research and research bids that are high risk or unpredictable, taking innovative approaches and comfortable taking changes.

The lived experience of risk receives an average score of M=4.16 (N=339) in the full academic sample[34]. A breakdown by academic career levels reveals very similar scores across levels: early-career academics M=4.20 (N=48), mid-career academics M=4.19 (N=131), advanced-career academics M=4.20 (N=115). For Professional Services[35], the lived experience of risk emerged with a mean score of M=4.00 (N=64). Figure 2.25 compares the full academic sample with a breakdown by career level and the Professional Services score.

Figure 2.25 Risk: by career level

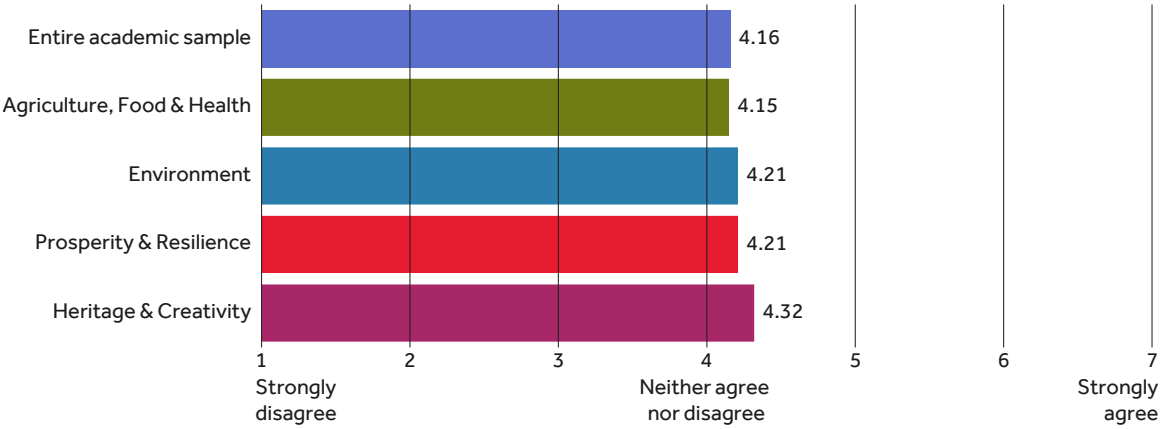


Looking at the breakdown of data by academics belonging to UoR's four research themes, lived experiences scores related to risk also appear very similar between academics belonging to different themes. Results (in ascending order) start with a mean score of M=4.15 (N=85) in 'Agriculture, Food & Health', M=4.21 (N=68) in 'Environment', M=4.21 (N=51) in 'Prosperity & Resilience' and M=4.32 (N=56) in 'Heritage & Creativity'. Figure 2.26 compares the mean scores of the four research themes with the overall academic sample score.

34 Definition of risk in terms of the items measuring the lived experiences of academics: 'Being encouraged to design research bids that are high risk and experiment with research that has unpredictable outcomes; and being comfortable taking changes designing novel research.'

35 Definition of ambition in terms of the items measuring the lived experiences of Professional Services staff: 'Being encouraged to take innovative approaches to support research, academic researchers being encouraged to design research bids that are high risk and experiment with research that has unpredictable outcomes.'

Figure 2.26 Risk: by research theme



In terms of perceptions of risk as a University-level concept (rather than the lived experiences staff), both academic staff and Professional Services staff rate risk lower than in their own lived experiences, below the mid-point of the 7-point agreement scale – tending towards 'somewhat disagree' that the University of Reading positively embraces risk (see Table 2.11).

Table 2.11 University-level perceptions: Risk

Academic survey	'In my overall experience, the University of Reading has a research culture that positively embraces risk.'	M=3.38 (N=339)
Professional Services survey	'In my overall experience, the University of Reading has a research culture that positively embraces risk.'	M=3.54 (N=63)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[36]

Overall, not many comments were submitted in the end of survey open-ended part that relate to the theme of risk, but a few comments highlighted a need to be less risk adverse.

> 'My biggest concern is the Universities response to demand management measures that Research Councils have implemented. They are definitely making us risk and invention adverse and proposals going out are less ambitious and too safe because of the fear of failure. This is, actually, a Research Council problem and I understand the University's response – but we should do all we can to warn the Research Councils that their policies and procedures are stifling ambition and innovation.'
> (Advanced-career academic)

> 'Take more risks to invest in research to attract and retain young researchers with potential.'
> (Advanced-career academic)

> 'More funding for fully funded PhD students, that will allow us to take risks with novel research. It is unlikely that we will get grants to fund risky research externally.'
> (Mid-career academic)

36 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

Summary

Participants answered close to the midpoint of 'neither agree nor disagree' on whether they receive encouragement to experiment with novel and less predictable research. Professional Services staff provide the lowest score – exactly on the mid-point. Interestingly, when comparing staff perceptions of their own working environment with staff perceptions of the University overall, participants in both the academic sample and the Professional Services sample provide even more pronounced scores: both groups tend to agree that the University is more risk adverse than their own research environment.

2.13 Mental Health

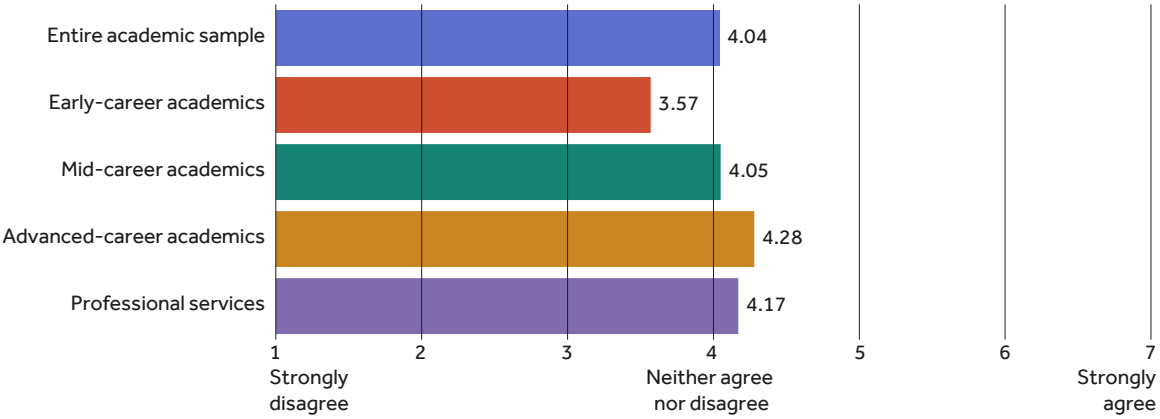
What is measured in this topic? The survey measured staff experiences of whether they feel they can speak openly about difficulties relating to research and work, not worry excessively or be fearful of what happens if research targets and objectives are not met.

Lived experiences related to mental health receive an average score of M=4.04 (N=336) in the full academic sample[37]. A breakdown by academic career level reveals that early-career academics have the lowest mean score and that this score is well below the mid-point of the 7-point scale M=3.57 (N=48). Mid-career academics return a score of M=4.05 (N=131) and advanced-career academics score M=4.28 (N=116). For Professional Services staff[38], their lived experience related to the mental health scale emerges with a mean score of M=4.17 (N=56). Figure 2.27 compares the full academic sample, with a breakdown by career level and the Professional Services staff score.

37 Definition of mental health in terms of the items measuring the lived experiences of academics: 'Being able to speak openly about difficulties in research; not worrying excessively about research; and not being fearful of what will happen if research targets are not met.'

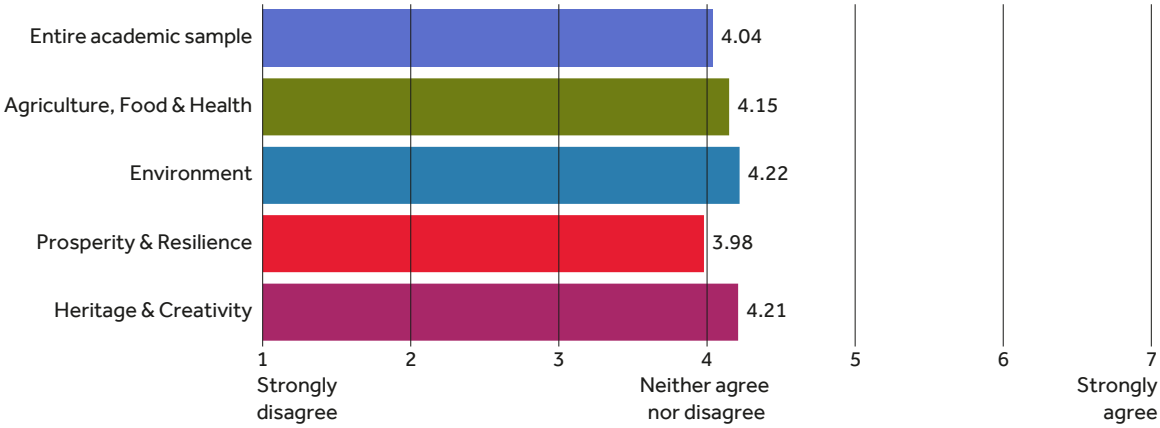
38 Definition of mental health in terms of the items measuring the lived experiences of Professional Services staff: 'Being able to speak openly about difficulties in work; not worrying excessively about work; and not being fearful of what will happen if work objectives are not met.'

Figure 2.27 Mental health: by career level



Looking at the breakdown of data by academics belonging to UoR's four research themes, lived experiences scores related to mental health all sit close to the mid-point of the 7-point scale. However, academics in 'Agriculture, Food & Health' (M=4.15, N=85), in 'Environment' (M=4.22, N=68) and 'Heritage & Creativity' (M=4.21, N=56) score this area slightly above the mid-point, while academics in 'Prosperity & Resilience' emerge with a score just below the mid-point, M=3.98 (N=52). Figure 2.28 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.28 Mental health: by research theme



In terms of perceptions of support for mental health as a University-level concept (rather than the lived experiences of staff), Professional Services staff provide a score just above the mid-point of the 7-point scale, while academic staff provide a score below mid-point, tending towards 'somewhat disagree' on this statement (see Table 2.12).

Table 2.12 University-level perceptions: Mental health

Academic survey	'In my overall experience, the University of Reading supports mental health in a way which is conducive to a positive research culture.'	M=3.74 (N=336)
Professional Services survey	'In my overall experience, the University of Reading supports mental health in a way which is conducive to a positive research culture.'	M=4.16 (N=56)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[39]

A number of comments related to mental health were provided by participants at the end of the survey. Some participants ask for more support for mental health, while others share the reasons for mental health related issues (such as feeling pressure to write grants, replacing staff who leave and programme review).

'Lack of work/life balance, no matter what encouragement the University gives to have balance, it will always reward those that have no work life balance.'
(Early-career academic)

'More mental health support.' (Mentions of the most powerful interventions that the University could do to support the research culture.)
(Early-career academic)

'The hiring frost will cause more staff to leave and no one will replace them. Many people are leaving due to intolerable conditions, so institutional knowledge is being lost in droves and it's a pretty depressing place to be as either a new starter or an experienced team member.'
(Professional Services staff)

'Support to take care of myself so don't feel guilty for taking a walk around the lake.' (Mentions of the most powerful interventions that the University could do to support the research culture.)
(Early-career academic)

'Many "successful" academics are burning out.'
(Advanced-career academic)

'Have been unemployed frequently across my time in research, I have no financial stability and am always aware of my vulnerability.'
(Early-career academic)

'The endemic pressure to write grants, even to the detriment of wellbeing and after failures there is no after-action review, just an expectation to carry on churning out the applications, irrespective of outcomes.'
(Mid-career academic)

'STOP unleashing University-wide programme reviews and other similar interventions/schemes/initiatives. I have seen far too many colleagues fall ill with depression, exhaustion, and burn out because of PRP. I would not be surprised if this has affected output production and would undermine our next REF.'
(Advanced-career academic)

39 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

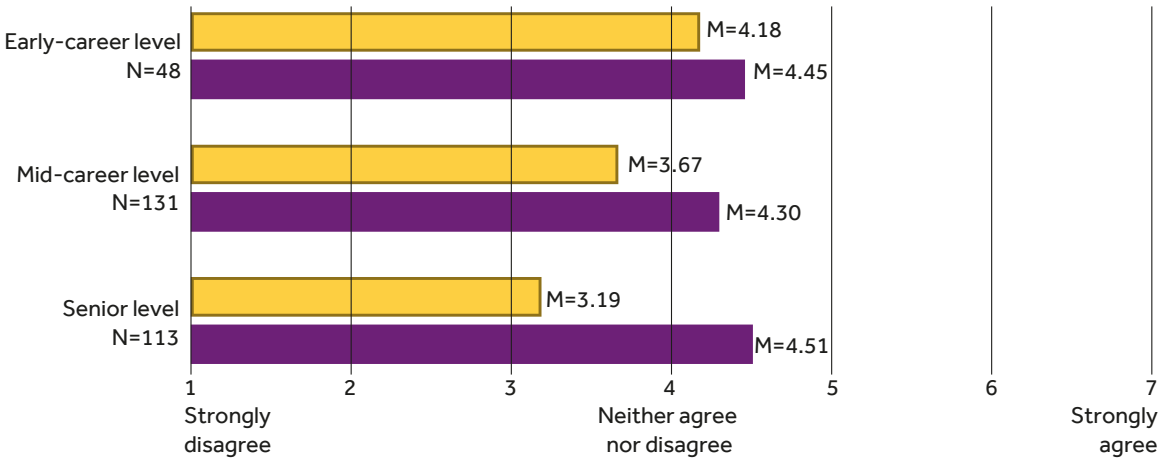
'I work in a very good department that works hard to discuss and retain a good environment. I have had experience in a unit where staff were constantly stressed and overworked, leaving little time for research. They had to second-guess what management were planning, so openness is important. If you want good research culture, you have to have a good culture overall – so staff are clear on overall expectations, have time to develop collaborations, can trust each other. The Uni also needs to recognise better that external calls on academics' time are really important for improving internal research culture and success as well. The apparent disparities between different parts of the University in time for research are also unfair.'
(Advanced-career academic)

Emotional wellbeing

As an additional measure in the context of mental health, respondents were asked for their emotional wellbeing at work (Kessler et al, 2002; Kessler et al, 2003; Topp et al, 2015). Emotional wellbeing is measured in terms of both positive and negative emotions experienced at work in the last 30 days.

The results, presented in Figure 2.29, suggest similar findings across career levels for reported positive emotions (presented here in ascending order): mid-career (M=4.30), early-career (M=4.45) and advanced-career (M=4.51). These scores are slightly above the mid-point of the 7-point scale. In terms of negative emotions, the reported scores appear to have a wider spread of means across career levels, presented in ascending order: advanced-career (M=3.19), mid-career (M=3.67) and early-career (M=4.18). Advanced and mid-career academics returned average scores below the mid-point of the scale, while early-career academics returned an average score above the mid-point of the scale.

Figure 2.29 Emotional wellbeing at work



Note: Yellow (top bar) represents negative emotions (e.g. nervous, restless, hopeless, worthless). Purple (bottom bar) represents positive emotions (e.g. optimistic, calm, peaceful, good spirits). High score means high lived experience of these felt emotions.

It is important to note that while all mean scores seem to centre around the mid-point, possibly indicating a lack of high emotional wellbeing at all levels, early-career academics stand out as the only group who report, on average, a higher than mid-point negative emotional wellbeing at work score. This is in line with the above finding that early-career academics report the lowest mental health score out of the three academic career level groups, as well as lower than Professional Services. The reporting of some slight positive emotions from early-career researchers should therefore not be taken as an indicator of a lack of negative emotions and this is an important finding to be cognizant of when considering issues of mental health.

Summary

Participants tend to neither agree nor disagree on whether they feel they can speak openly about difficulties and not worry about consequences of not meeting targets. Early-career academics report the lowest score, tending towards 'somewhat disagree' that they can speak openly and not worry. When comparing perceptions of people's own working environment with perceptions of the University overall, the overall academic staff score drops below the midpoint towards the area of slight disagreement on whether the University supports mental health in a way that is conducive to a positive research culture, while the Professional Services staff score stays just above the midpoint.

2.14 Fairness

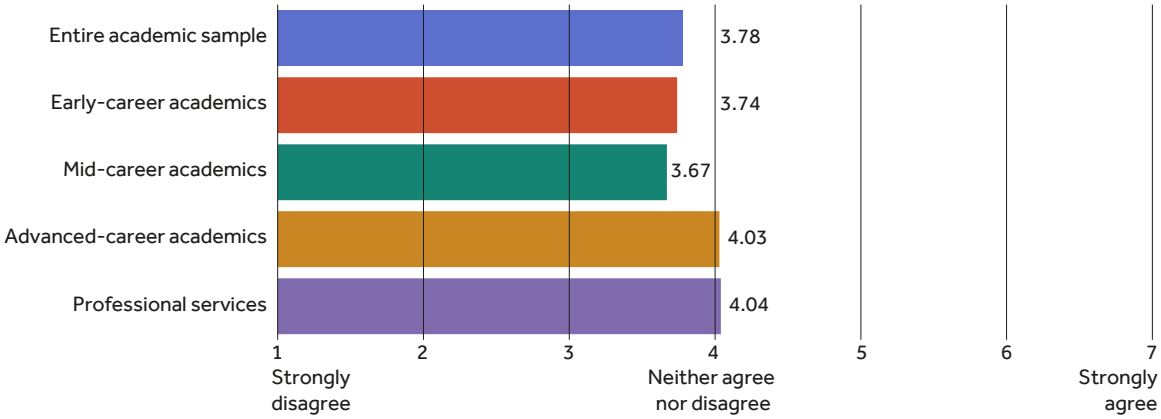
What is measured in this topic? The survey measured staff experiences of fair expectations and evaluations of research-related outputs and participants' perceptions of being treated fairly, respectfully and equally to others.

The lived experience of fairness receives the third-lowest overall score of M=3.78 (N=339) in the survey of the full academic sample[40]. A breakdown by academic career level reveals the following scores (presented in ascending order): mid-career academics (M=3.67, N=131), early-career academics (M=3.74, N=48) and advanced-career academics (M= 4.03, N=115). For Professional Services staff[41], the lived experience of fairness is positioned very closely to the mid-point with a mean score of M=4.04 (N=64). Figure 2.30 compares the full academic sample with a breakdown by career level and the Professional Services staff.

40 Definition of fairness in terms of the items measuring the lived experiences of academics: 'A fair expectation regarding outputs, given other workload demands; being equally acknowledged to others who have achieved similar goals; transparent and clear allocation of workload; and fair processes to evaluate quality of research.'

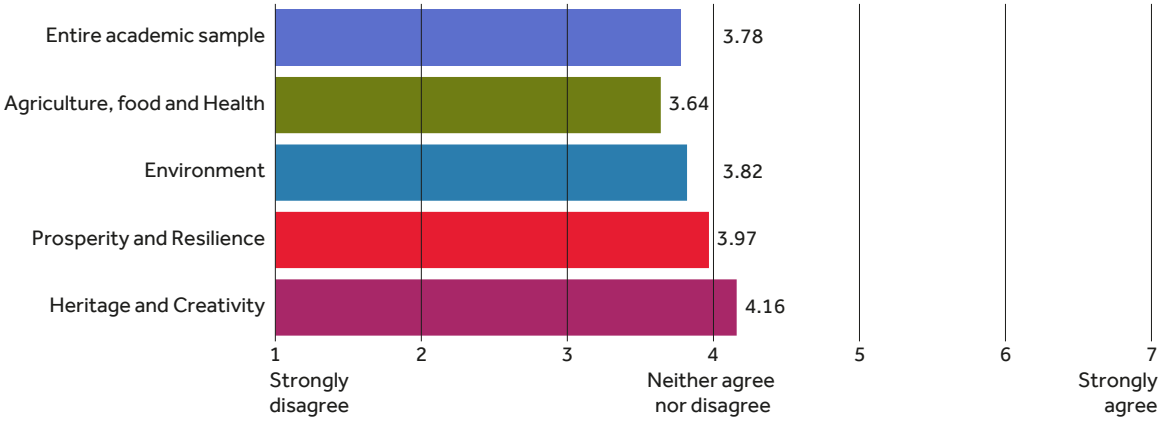
41 Definition of fairness in terms of the items measuring the lived experiences of Professional Services staff: 'Being treated with respect and politeness by researchers and feeling part of the research culture.'

Figure 2.30 Fairness: by career level



Looking at the breakdown down of data by academics belonging to UoR's four research themes, lived experiences scores related to fairness score below the mid-point of 4 on a 7-point agreement scale for three research themes: 'Agriculture, Food & Health' (M=3.64, N=85), 'Environment' (M=3.82, N=68) and 'Prosperity & Resilience' (M=3.97, N=52). Academics in 'Heritage & Creativity' score this theme at M=4.16 (N=56), just above the mid-point of the scale. Figure 2.31 compares the mean scores of the four research themes with the overall academic sample score.

Figure 2.31 Fairness: by research theme



In terms of perceptions of fairness as a University-level concept (rather than the lived experiences of staff), both academics and Professional Services staff provide mean scores below the mid-point of the 7-point agreement scale, with the academic staff score considerably lower still (see Table 2.13).

Table 2.13 University-level perceptions: Fairness

Academic survey	'In my overall experience, researchers across the University of Reading are given equal opportunity to conduct research.'	M=3.40 (N=339)
Professional Services survey	'In my overall experience, researchers across the University of Reading are given equal opportunity to conduct research.'	M=3.95 (N=59)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[42]

There were a considerable number of comments provided in the surveys that related to fairness. Many of these comments represent perceptions of unfair expectations in relation to research outputs and high workloads given competing demands, limited resources and a desire for more investment to provide a level playing field. Others reference fairness issues with pay and changes to pension schemes, as well as differences across parts of the University in the allocation of research time as unfair. Some participants comment on the impact of fairness on other aspects of life, such as work–life balance. For Professional Services staff, there is a desire to be better recognised for their input into research and be treated as partners in research, rather than only as service providers. It is important to note that fairness is not a concept that operates in isolation. As such, comments related to fairness often relate to other aspects and can be cross-referenced to issues related to time for research/research support; recognition; support; equality, diversity and inclusion, and mental health in particular. The comments presented below give a flavour of these:

> 'To ensure that research is prioritised and recognised at the same level as teaching and that workload is allowed for research – at the moment it is not clear whether individuals are getting this time in a fair way.' (Mention of the most powerful interventions that the University could make to help better support the research culture.)
>
> (Advanced-career academic)

> 'I think giving more money to allow researchers to be able to do actual research is needed. Expecting people to do things like attend conferences and do fieldwork out of their own pocket is simply not on. I am an (...) and it is very difficult to encourage members of staff to take part in an international research community by attending conferences abroad etc, when it costs them serious money to do so, given the limits of the research travel grants (which in any case, won't give to professors above zone. This is an EDI issue too, given that this sort of international presence is included in promotion criteria. Fundamentally, we shouldn't be expecting people to pay to do their own job. I have worked in several institutions – including post – and I have never been anywhere which is as mean with its funding for researchers as Reading is.'
>
> (Mid-career academic)

> '...Research staff have limited opportunity to plan for long-term investment in the research culture of the University, particularly in light of the current freeze on hiring new staff.'
>
> (Mid-career academic)

> 'People aren't valued. We are just expected to do our contract and come up with more when we can. I work 140% FTE and while I am praised for my achievements by my peers, the University doesn't seem to care.'
>
> (Mid-career academic)

42 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

'Research support staff are sometimes treated like "just" administrators who are holding up PIs' projects, rather than specialised professionals who are part of the team supporting a project. Professional Services are often thought about as 2nd class citizens compared to academic staff. We aren't respected for our own skills and experience in our own right, just seen as supporting the academics.'
(Professional Services staff)

'Placing high demands on academics for both teaching and research excellence. It's not possible to achieve both.'
(Mid-career academic)

'The University is continuously asking for more and more and more and more!!! We have to be excellent academics, excellent teachers, excellent tutors, excellent marketeers, excellent administrators, excellent in sourcing funding, excellent in just completing any task that is assigned to us! I am sorry but I am working more than 10 hours a day and, in the meantime, I am also trying to have a balanced life!! The University will need to realise that if they don't employ more people then people will start leaving!!'
(Mid-career academic)

'The fact that salaries continue to be low, not properly adjusted to inflation, and every day less competitive with international standards, makes if difficult to recruit excellent researchers worldwide, and to compete with other organisations. The multiple changes to the pension scheme have also made several younger researchers state that "we no longer can count on a pension", and many have left. It is not enough to display banners all over campus claiming that the University invests in people: the University needs to truly reward people, with cash.'
(Advanced-career academic)

'Workload – mid-career academics are those most likely to be in dept/school leadership positions with heavy admin/support loads and are sandwiched with family caring responsibilities. This makes the time available to produce high-quality research very hard to find. Impact and funding should not be aggressive focus of research cultures.'
(Mid-career academic)

'To ensure that research is prioritised and recognised at the same level as teaching and that workload is allowed for research – at the moment it is not clear whether individuals are getting this time in a fair way.'
(Advanced-career academic)

Summary

Participants tend to somewhat disagree with fairness-related statements, such as perceptions of fair expectations and evaluations of research-related outputs and perceptions of being treated fairly, respectfully and equally to others. Notably, mid-career academics report the lowest score, while advanced-career academics and Professional Services staff scores emerge just above the mid-point. Both academic staff and Professional Services staff indicate even lower scores for University-wide perceptions, i.e. tend to somewhat disagree that researchers across the University are given equal opportunity to conduct research, with the academic group feeling this even more pronounced.

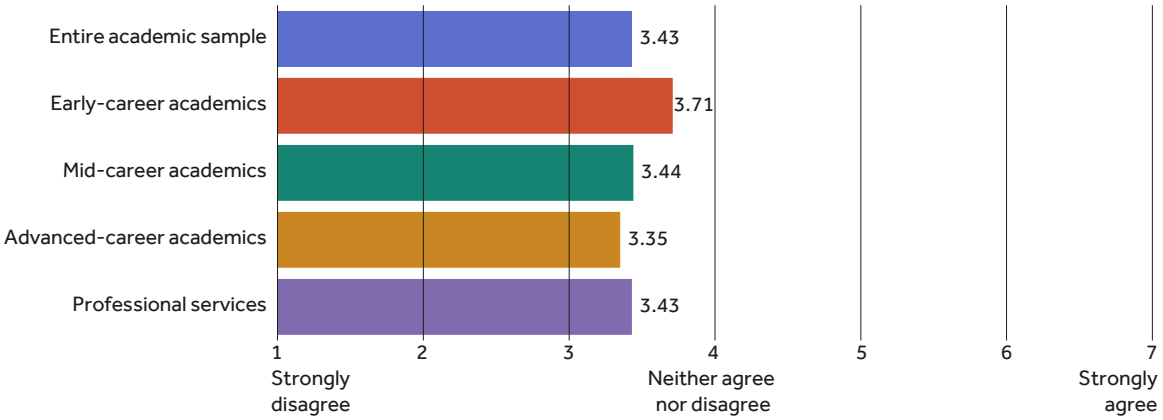
2.15 Support (IT/Infrastructure)

What is measured in this topic? The survey measured staff experiences of adequate investment in infrastructure such as labs, equipment and technology; and whether IT services are providing support that is useful to research.

The lived experience of support from IT/infrastructure receives the second lowest average score of M=3.43 (N=338) in the full academic sample[43]. A breakdown by academic career revealed that scores descend as career levels advance: early-career academics M=3.71 (N=47), mid-career academics M=3.44 (N=131), advanced-career academics M=3.35 (N=115). For Professional Services[44], the lived experience of support from IT/infrastructure emerges in a similar region to the academic score with a mean of M=3.43 (N=62).

Figure 2.32 compares the full academic sample with a breakdown by career level and the Professional Services score.

Figure 2.32 IT/technical support: by career level

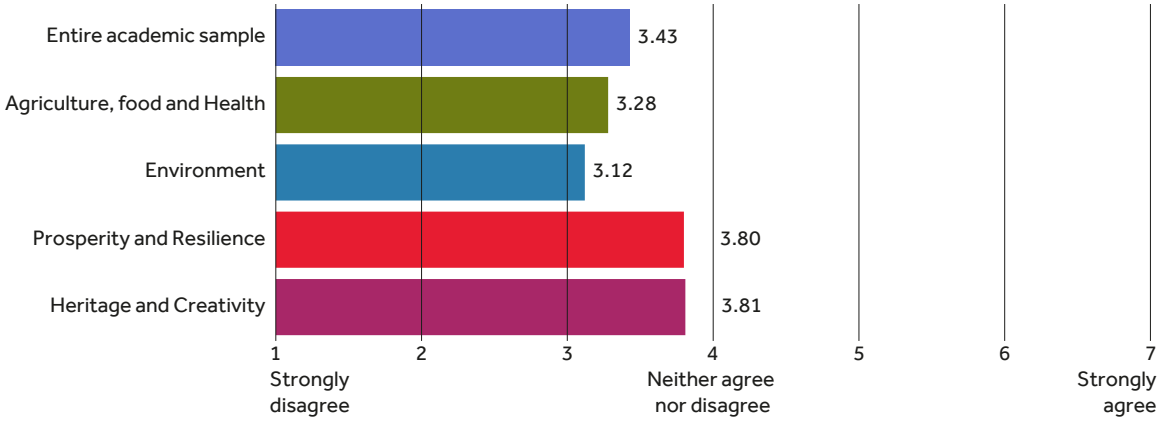


Looking at the breakdown of data by academics belonging to UoR's four research themes, lived experience scores related to support from IT/technical all sit below the mid-point of the 7-point scale for all groups (in descending order): 'Heritage & Creativity' at M=3.81 (N=55), 'Prosperity & Resilience' at M=3.80 (N=52), 'Agriculture, Food & Health' at M=3.28 (N=85) and 'Environment' at M=3.12 (N=68). Figure 2.33 compares the mean scores of the four research themes with the overall academic sample score.

43 Definition of support from IT/infrastructure in terms of the items measuring the lived experiences of academics: 'IT services providing support that is useful to research; adequate investment in infrastructure (e.g. labs, IT equipment, technology).'

44 Definition of support from IT/infrastructure in terms of the items measuring the lived experiences of Professional Services staff: 'IT services providing support that is useful to research projects; adequate investment in infrastructure (e.g. labs, IT equipment, technology).'

Figure 2.33 IT/technical support: by research theme



A comparison between lived experiences and perceptions at UoR-level cannot be provided for support IT/technical topic as explained under data analysis.

Illustrative comments[45]

There were a significant number of comments provided at the end of the survey related to IT/technical support. The majority of these express frustration with experiences of IT support and investment in IT. Frustration with the level of technical support is also expressed with calls for greater funding, integration and provision of IT/technical support.

> 'Improve IT support for research – the changes made some years ago still have repercussions as they did not adequately take into account the support and facilities required for internationally leading research. This put a lot of pressure on academic colleagues, put off researchers from coming to our School, and probably put a lot of pressure on IT staff, as well trying to retrofit systems that were inadequate. I am in a research-dominated, world-leading department where there is a lot of pressure to deliver high quality research.' (Mentions of most powerful interventions that the University could make to help support the research culture.)
> (Advanced-career academic)

> '...DTS – bespoke support for research is just not there – trivial example – lack of administrator rights on PCs actually prevents research – we need to be able to control what is on our computers. Purchasing of non-standard equipment – a nightmare. When something goes wrong you wait 45 mins on hold on the phone and then it cuts out and you have to start again (this is not my experience in other institutions) – too much bureaucracy.'
> (Advanced-career academic)

> 'DTS have taken over and control computing needed for modern research but do not deliver what is needed, they are bureaucratic, slow and incompetent.'
> (Mid-career academic)

> 'Lack of lab-based technical support is a major issue.'
> (Advanced-career academic)

45 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

'The amount of time taken to sign off contracts with external partners, or to set up organisations on e-Marketplace. The new procurement system is clearly not designed for administration of research contracts. It is questionable whether the mechanism we use to set up a research partnership should use the same process as that used for purchase of consumables.'
(Advanced-career academic)

'Difficult to get research contracts sorted in a reasonable length of time; difficult to get grants started, as they are kicked into the long grass; difficult to place orders for IT equipment of software; difficult to get workshop to repair equipment, very cumbersome and lengthy paperwork (e.g. travel risk assessments).'
(Unspecified)

'Restructuring the technical services. We need direct research support. The current system of the "support" provided by the technical services is turning academics into admins.'
(Mid-career academic)

'Forward investment in research infrastructure – keeping this relevant and functioning. Investment in dedicated technical staff to support research – the current model of technical support is not fit for purpose.'
(Advanced-career academic)

'Investment in technology to enable transactional paperwork that needs multi-people input to be swifter and seamless. Current processes via e.g. Word/PDF via email transfer are clunky and inefficient and not transparent. Could be applied to HR processes, requesting funds, submitting theses etc.'
(Professional Services staff)

Summary

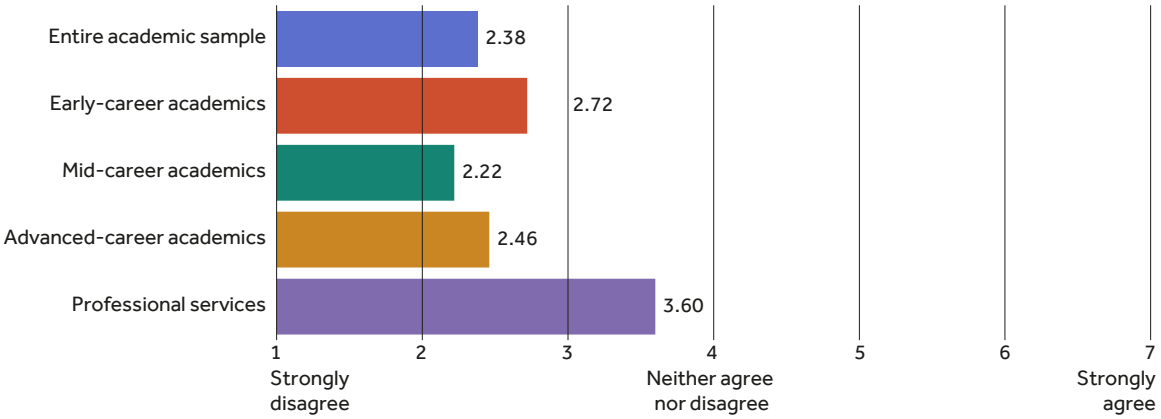
Participants somewhat disagree that IT services provide support that is useful to research and that adequate investment in infrastructure exists. Participants across academic career levels and Professional Services staff feel fairly similar about this topic.

2.16 Time for Research/Research Support

What is measured in this topic? The survey investigated staff experiences of whether they have enough time to do and/or support research. Participants were asked whether they can accomplish their research/research support in the allocated time, whether they are able to legitimise research/research support over competing demands and whether they are under severe time pressure when doing or supporting research.

The lived experience of time for research/research support emerges as the lowest rated topic in the full academic sample[46] with an agreement score of M=2.38 (N=336). A breakdown by academic career level suggests that mid-career academics feel they have the least time for research with M=2.22 (N=130), followed by advanced-career academics with a score of M=2.46 (N=116) and early-career academics with a score of M=2.72 (N=48). For Professional Services staff[47], the lived experience of time for research/research support emerges with a mean score of M=3.60 (N=57). Figure 2.34 compares the full academic sample, with a breakdown by career-level and the Professional Services score.

Figure 2.34 Time for research/research support: by career level

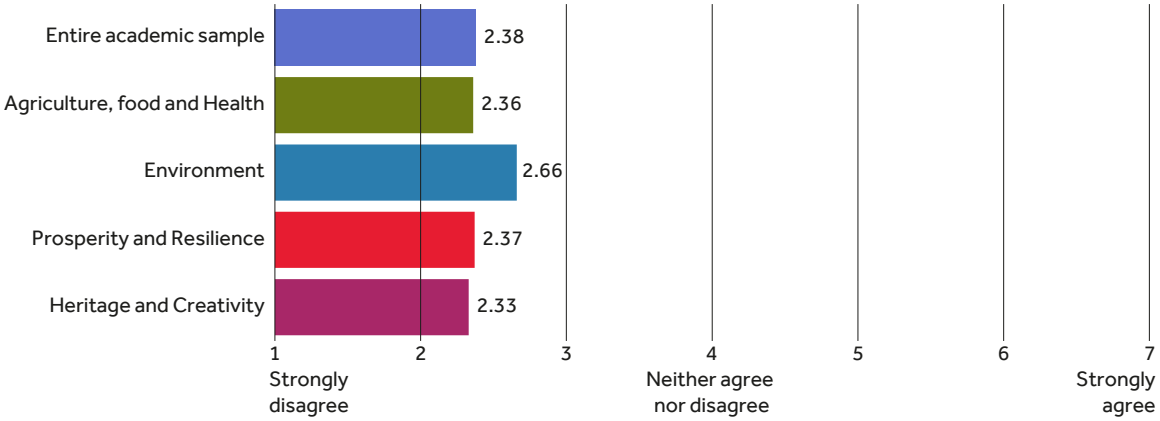


In terms of a breakdown of data by academics belonging to UoR's four research themes, academics in 'Agriculture, Food & Health', 'Prosperity & Resilience' and 'Heritage & Creativity' exhibit fairly similar scores with M=2.36 (N=85), M=2.37 (N=51), M=2.33 (N=56) respectively, with academics in 'Environment' emerging with a slightly higher score of M=2.66 (N=68). Figure 2.35 compares the mean scores of the four research themes with the overall academic sample score.

46 Definition of time for research in terms of the items measuring the lived experiences of academics: 'no severe time pressure when doing research; able to accomplish research in allocated time; not finishing research in personal time; and ability to legitimately prioritise research over competing responsibilities.'

47 Definition of time to support research in terms of the items measuring the lived experiences of Professional Services staff: 'no severe time pressure when supporting research; being able to provide support in allocated time; not finishing work in personal time; and ability to legitimately prioritise support given to research projects.'

Figure 2.35 Time for research/research support: by research theme



Looking at perceptions of time pressure as a University-level concept (rather than the lived experiences of staff), the scores presented in Table 2.14 appear to be broadly consistent with the lived experience scores reported above, particularly in the academic sample.

Table 2.14 University-level perceptions: time for research/ research support

Academic survey	'In my overall experience, the research culture at the University of Reading allows me to manage my research time well.'	M=2.82 (N=337) (Note: a low score on this question indicates not enough time to do research)
Professional Services survey	'In my overall experience, the research culture at the University of Reading allows me to manage my time well.'	M=4.10 (N=60) (Note: a low score on this question indicates not enough time to do research)

Mean scores on a 7-point agreement scale from 1 = strongly disagree to 7 = strongly agree

Illustrative comments[48]

A number of comments provided by participants at the end of the survey, in an open-ended format, allude to the perception of competing demands for staff time and that research is seen to compete with teaching and administration:

'The drive to increase student recruitment puts research into second place.'
(Advanced-career academic)

'Mostly gradual erosion of research time through increasing teaching and administrative workloads.'
(Early-career academic)

'Research does not necessarily feel prioritised by the wider University. The time taken with teaching, administration and other tasks often make it feel like research/supporting research is the thing you do if you have time after everything else.'
(Professional Services staff)

'After many years, I have had a six-month research sabbatical. I have achieved so much. The opportunity to focus (almost) solely on research has made me realise how unrealistic it is to expect excellent research without having dedicated chunks of time to devote to it. Great if you have buy-out from a grant to do the research, but we have minimal time to devote to writing a grant.'
(Advanced-career academic)

'Too much teaching and admin – no time and headspace to focus on high-ranking outputs.'
(Early-career academic)

'Missed opportunities to apply for funding due to staff having workload that prioritises elements other than research, with no flexibility among faculty to temporarily step in, as there is no slack in the system if everyone has a heavy workload.'
(Mid-career academic)

'Colleagues do not have enough time or support to participate in research applications.'
(Professional Services staff)

'Stop fiddling with teaching and learning policies and increased paperwork and endless bureaucracies, to allow staff to breathe and to not overspend time on T&L related work so that staff with R in their contract can actually spend time doing research.'
(Advanced-career academic)

'Leadership to ensure realistic expectations of PS staff with limited resources (time). Cut down and streamline processes and approvals that PS staff need put in action and have clear justification for why each process is needed.'
(Professional Services staff)

48 The quotes presented in each section are not representative of all comments. Rather, they are chosen to represent a common view and bring context to the quantitative findings.

Summary

Academic staff feel they do not have enough time for research. Professional Services staff also score below the mid-point, indicating they also tend to feel that they don't have enough time to support research. When comparing staff perceptions of their own working environment with staff perceptions of time for research at the University overall, academic staff tend to disagree that the research culture at the University allows them to manage their research time well, while Professional Services staff sit close to the midpoint of 'neither agree nor disagree' with this question.

2.17 Word Clouds from Surveys

All survey participants in the academic and Professional Services surveys were asked at the end of each survey: 'Please can you provide us with three keywords or short phrases that you associate with the current research culture at the University of Reading?'

Participants provided a wide range of answers, summarised in two separate word clouds for academic staff (771 words/key phrases provided) and Professional Services staff (127 words/key phrases provided) – see Figures 2.36 and 2.37, respectively. In line with common word cloud practice we have given greater prominence to words that appear more frequently (through font size).

Figure 2.36 Research culture unprompted (academic staff)

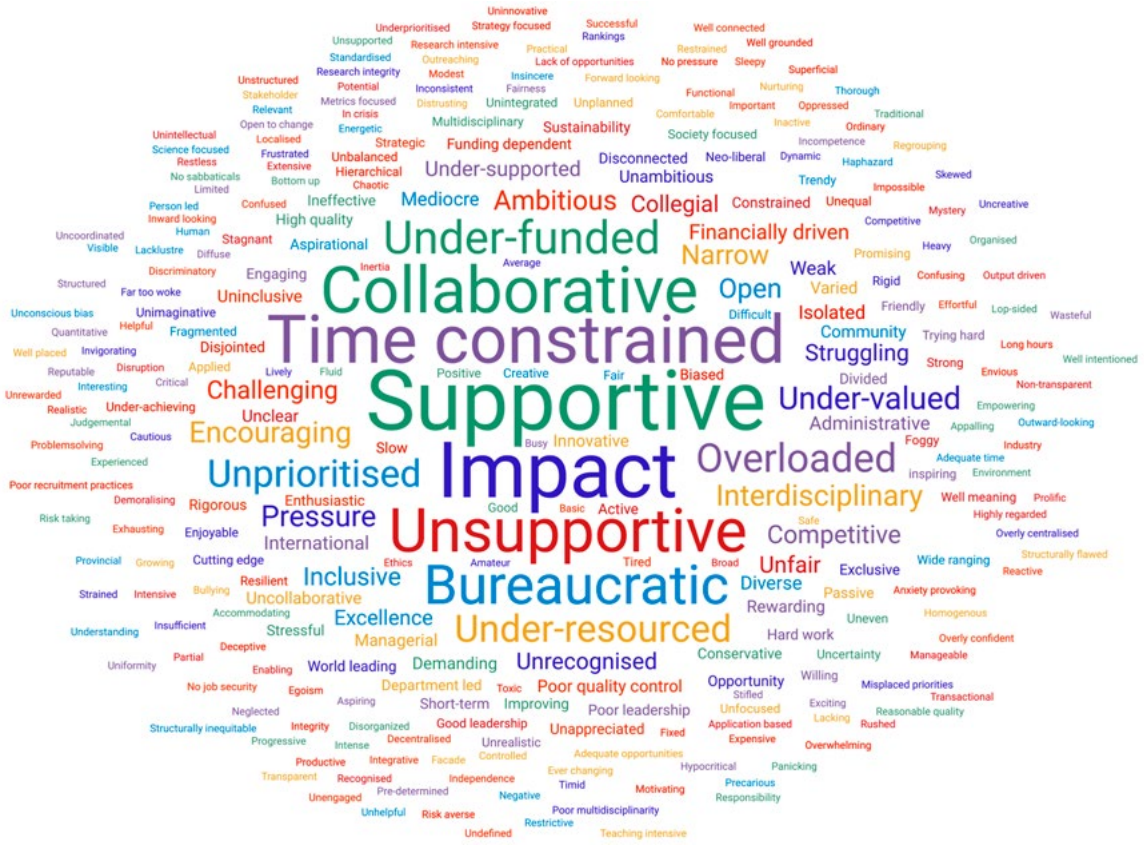


Figure 2.37 Research culture unprompted (Professional Services staff)

The word clouds from the 2023 academic survey reveal some results that were broadly similar to the initial qualitative study presented in stage 1 (from 2022, see Section 1 of this report). Common positive words were: 'supportive', 'impact', 'collaborative'. The 2023 results, however, also bring up repeat mentions of thoughts such as 'unsupportive', 'bureaucratic', 'underfunded', 'under-resourced' and 'overloaded'.

The word clouds from the 2023 Professional Services staff survey reveal results that partially overlap with previous qualitative work, but also provide some different insights. One key word – 'varied' – may represent either a positive (in the sense of varied or diverse research culture) or negative (in the sense of variable experience of research culture) and is, therefore, presented as potentially both a positive and negative word. Common positive words were: 'varied', 'innovative', 'collaborative', 'responsible'. Common negative words were: 'varied', 'pressured', 'busy' and 'underfunded'.

3. Mid-career focus groups in 2023

3.1 Overview

From the initial study conducted in 2022 (presented in Section 1) emerged a need to conduct a dedicated inquiry into the specific pressures that mid-career academics feel they are under, as the 2022 findings suggested that mid-career academics experienced research culture least positively. Therefore, UCRI commissioned a small-scale qualitative study with mid-career researchers to explore their lived experience of research culture, with a particular focus on eliciting ideas about how research culture can be improved. These focus groups were conducted in spring 2023 prior to the research culture survey described in section 2 (please refer to the methodology in the introduction for the demographic breakdown). From these conversations with mid-career academics, four key areas of discussion emerged that centred around time pressure, collaboration, support, and fairness.

Synergistically, the results from the quantitative surveys (see Section 2 of this report) provide evidence that these four areas may be important to improving research culture with the wider population of staff too, as they relate to topics already identified as being high or low scoring in the surveys with both the full sample of academic and Professional Services staff. This section provides a brief summary of how these four areas of time pressure, collaboration, support, and fairness were articulated by mid-career researchers verbally, including suggestions for improvements going forward.

3.2 Time Pressure

A significant part of the mid-career focus group conversations centred around the topic of time pressure, with the following key points emerging:

- Research is perceived to be prioritised below other demands (mainly teaching and administration) and these other demands are seen to be increasing, resulting in less time to do research. Although this is acknowledged to be a sector-wide problem, clear and consistent policies and practices on time for research and research leave are suggested as a positive solution.
- There is a perception that teaching-related activity has grown and that the University's focus and priority seems to be student experience and teaching, leading researchers to either compromise their research ambition or to make personal sacrifices, such as working longer hours, pushing research projects to the summer, or focusing, single-mindedly, on productivity in research (sometimes called 'churning out papers') rather than developing new projects or taking part in research-related developmental activities. There was also a sense that mid-career academics are increasingly being asked to take on time-demanding leadership roles, while also being expected to provide pastoral care and mentoring to early-career academics, sometimes not clearly acknowledged in workload allocations (cross-referenced under 3.5 Fairness and also 2.13 mental health).

- There were some positive examples of colleagues being able to set boundaries to protect research time and achieve research outputs despite time pressure, and also of senior leaders setting behavioural norms in which they signal the protected nature of research time with weekly dedicated research days and out-of-office messages to communicate that research is legitimately prioritised on these days.
- Administrative work was perceived to be highly bureaucratic and impacts negatively on research productivity; suggested solutions included a review and simplification of processes, and more dedicated professional support for teaching and administrative tasks to free up research time.

3.3 Collaboration

Another key topic that emerged from the mid-career focus group conversations centred around collaboration, with the following points emerging:

- Collaboration seems to be considered as a key positive aspect of the current research culture: participants were of the view that the University is full of pockets of interesting research expertise and colleagues who are willing to be collaborators. Participants perceive interdisciplinary research as a key commitment of the University and consider collaboration within and outside of the University as one of the most enjoyable and valuable parts of their working lives.
- However, a niche group of participants expressed the opinion that they experienced the research culture as siloed, with people working in small groups, or alone, towards an individual research agenda. There is a view that silo working could result from a lack of infrastructure that connects researchers across the University. Some participants mentioned, with regret, that they have a poor knowledge of the research landscape across the University. Some participants also mentioned internal processes as an obstacle to creating research groups comprising of post-docs and PhD students due to the differences in administrative services for these groups.
- To move the research culture of collaboration forward across the University and beyond, mid-career researchers suggest more University-led initiatives and infrastructures for connecting researchers, projects and industry partners with shared research interests (both virtual and in-person). For example, some participants gave positive reports about the impact that the Centre for Quality Support and Development (CQSD) has had on teaching, and hoped for a research equivalent (for example, speed-dating for research initiatives). Some participants also cited existing examples of newsletters or emailing lists being used by theme leaders to showcase research achievements as examples of practices that encouraged collaboration. Existing practices in the Heritage & Creativity theme received several positive mentions and, as such, may warrant deeper exploration.
- It was suggested that communication about research achievements and work-in-progress for the wider University would be beneficial for improving understanding of the University's research landscape. In particular, showcasing and supporting promising work-in-progress was suggested as important as end-results are often focused on what was achieved, rather than the process by which it was achieved. There was a desire to learn more of the 'how' collaboration can be achieved.
- There were also suggestions to include Professional Services staff in research projects at an earlier stage and more regularly throughout the lifecycle of a project, so that Professional Services and academic staff can constructively and pro-actively work together to add value at different stages of a research project.

3.4 Support (Including Personal, Professional Services, and IT/ Technical Support)

Mid-career focus group participants discussed several aspects of research culture as related to the support they receive: support in terms of personal support, Professional Services support, and IT/technical support. Key points related to each area are outlined below.

Key points in terms of personal support include:

- Mid-career academics expressed strong appreciation for developmental programmes and noted how much they valued (and/or would value) access to University-wide pump-priming funds for research projects.
- Participants perceived broader career mentorship as positive at the University, but perceived mentorship specifically focused on research as rare and, in cases where it does exist, as person-led or randomly allocated rather than based on research interest/expertise and adequately facilitated. As such, mid-career academics feel disadvantaged compared to early-career researchers who they perceive as much better supported. There was also a sense of lack of support for mid-career academics in leadership positions. It was suggested that the University could develop better mechanisms for identifying mid-career researchers who are overwhelmed, so that appropriate support may be provided, including turn-taking of major administrative roles and balancing of development activities and leadership responsibilities for an individual.
- Some participants spoke about experiences at their previous universities where they could, with great success, apply for funds for research assistants or PhD students for support with research projects. It was suggested that the University could benchmark against practices elsewhere and provide similar research budgets for the recruitment of domestic or international research aides i.e., PhD students, PDRAs and RAs.

Key points in terms of Professional Services support include:

- Professional Services support was generally well-regarded. Mid-career academics commonly perceive Professional Services support to be pro-active and engaging, especially around grant application, impact reporting and public relations. However, several participants expressed the view that positive service delivery is dependent upon individuals rather than structurally embedded.
- Participants were concerned that they feel they do not have a clear understanding of the expectations and boundaries within their relationships with Professional Services staff and would like more clarity on the boundaries of this team's responsibilities to researchers and vice-versa.
- As such,mid-career academics feel they would benefit from a University directive which more clearly defines the broad remits of support to be expected from both Professional Services and academics when working together. Relatedly, it is suggested that effort is taken to codify areas of individual excellence and to standardise the delivery of Professional Services support to this level.

Key points in terms of IT/Technical support include:

- There were a number of negative comments about IT/Technical support relating to communication, single points of failure, bureaucracy, and support of software, procurement and data storage. These issues were very emotive for many and frustrations with IT/Technical support were often described as key barriers to starting or completing research projects.
- Some participants described having difficulties accessing appropriate IT/technical support and having to change research agenda because of obstacles/barriers to accessing high-quality DTS/technical support.
- Suggested solutions include a review and benchmarking of IT and technical support provision with other universities and providing more investment. Another key suggestion was to provide researchers more autonomy within IT systems and on IT spending. There was a strong view among participants that improving IT/Technical support in relation to research would significantly improve researchers lived experience of research culture and improve their research outputs, as well as making the University a place that would attract and retain high-quality researchers.

3.5 Fairness

The topic of fairness emerged in numerous ways in the mid-career researcher focus groups, often with negative connotations. It is important to note that fairness is a topic that is often expressed in wider issues, such as in relation to time and resources for research or perceived lack thereof, in relation to remuneration and/or support mechanisms that may or may not be in place. As such, there is overlap between the discussion of this topic and other areas.

Key points related to fairness include:

- Mid-career academics often feel there is undue pressure to deliver significant outcomes related to teaching and research and, at the same time, take on responsibilities that may be expected of senior staff, while simultaneously supporting early career researchers. This is compounded by the belief that mid-career researchers feel they are expected to accomplish these competing demands without having line-management power or budgetary control. Suggestions for improvement included ensuring that leadership roles were rotated to reduce the burden on any one individual and also ensuring burdens are evenly shared within a department.
- Many mid-career academics perceive promotion criteria as unclear, not transparent and/or inconsistent between school and University-level committees. Suggestions include allowing the observation of promotion panels, including mid-career representation, representation from groups with protected characteristics and diversity training of committee members. There were also suggestions for clearer guidelines on how impact and research are considered in promotion decisions.

- Mid-career academics are concerned about difficulties in replacing academic staff when people leave, with participants mentioning current recruitment conditions (sometimes referred to as a 'hiring frost', 'hiring freeze' or 'extra scrutiny process') as adversely impacting research time for existing staff. In addition, some were of the view that a common practice is to recruit new research staff at a lower level when senior staff exit (such as, for example, replacing professors or experienced associate professors with lecturers). There is a commonly held view that this practice negatively impacts research excellence as it places unfair pressure on mid-career academics to take on roles vacated by senior staff and requires mid-career academics to help to train and develop junior staff who have been recruited.
- Mid-career academics with caring responsibilities (young families, elderly relatives) are asking for more understanding and flexibility related to competing demands on their time. Participants discussed several instances of how other institutions provide more flexibility for people with caring responsibilities, such as scheduling key meetings during school hours and outside of school holidays. Improving fairness in this area would be seen to move in the direction of other institutions.
- Some participants on fixed-term contracts spoke about the high level of anxiety and insecurity they experience and how that has a significant negative impact on their mental health as well as their research. In terms of research funding, these participants expressed the view that being on fixed contracts had negative implications for successfully securing grants, because of how problematic it is to demonstrate that they have a contract beyond the grant end date.

Conclusions

The findings from this two-year study lend themselves to begin dialogue within the University of Reading's research community on how to best maintain and further develop positive aspects of current research culture; and can also be used to discuss and identify purposeful actions towards addressing areas that may need strengthening. Insights derived from both qualitative and quantitative methodologies, over two academic years, and with broad inclusion of voices from across the whole University, indicate a sense of alignment on key topics across respondents, which should provide confidence in the rigour and robustness of findings.

Acknowledgements

The research team would like to acknowledge the collaborative spirit of fellow researchers at the University of Glasgow and at St Andrews University who have kindly responded to our requests to share their research culture survey work (both survey items and reports), which gave us the opportunity to build on their extensive work. We would like to thank the University of Reading's research participants who took the time to share their experiences and perceptions within the survey, and to also acknowledge the contribution of many staff from across the University who took part in the lengthy focus group discussions and showed great interest and goodwill for contributing towards a positive and inclusive research culture.

Response to the report from the pro-vice-chancellor research & innovation

The opportunity to take stock of how researchers and research support colleagues perceive research culture at the University of Reading has been immensely valuable and I am grateful to the research team which independently conducted this work. This work has enabled us to understand what research culture means to our community and we now have a duty to respond to the issues raised; we will do this through a programme of engagement and activity, which we will develop through consultation and co-production. There were some broadly positive messages about research excellence, impact, collaboration and integrity, and we were reassured to see that, on the whole, colleagues perceived their working environment to be collaborative and cooperative.

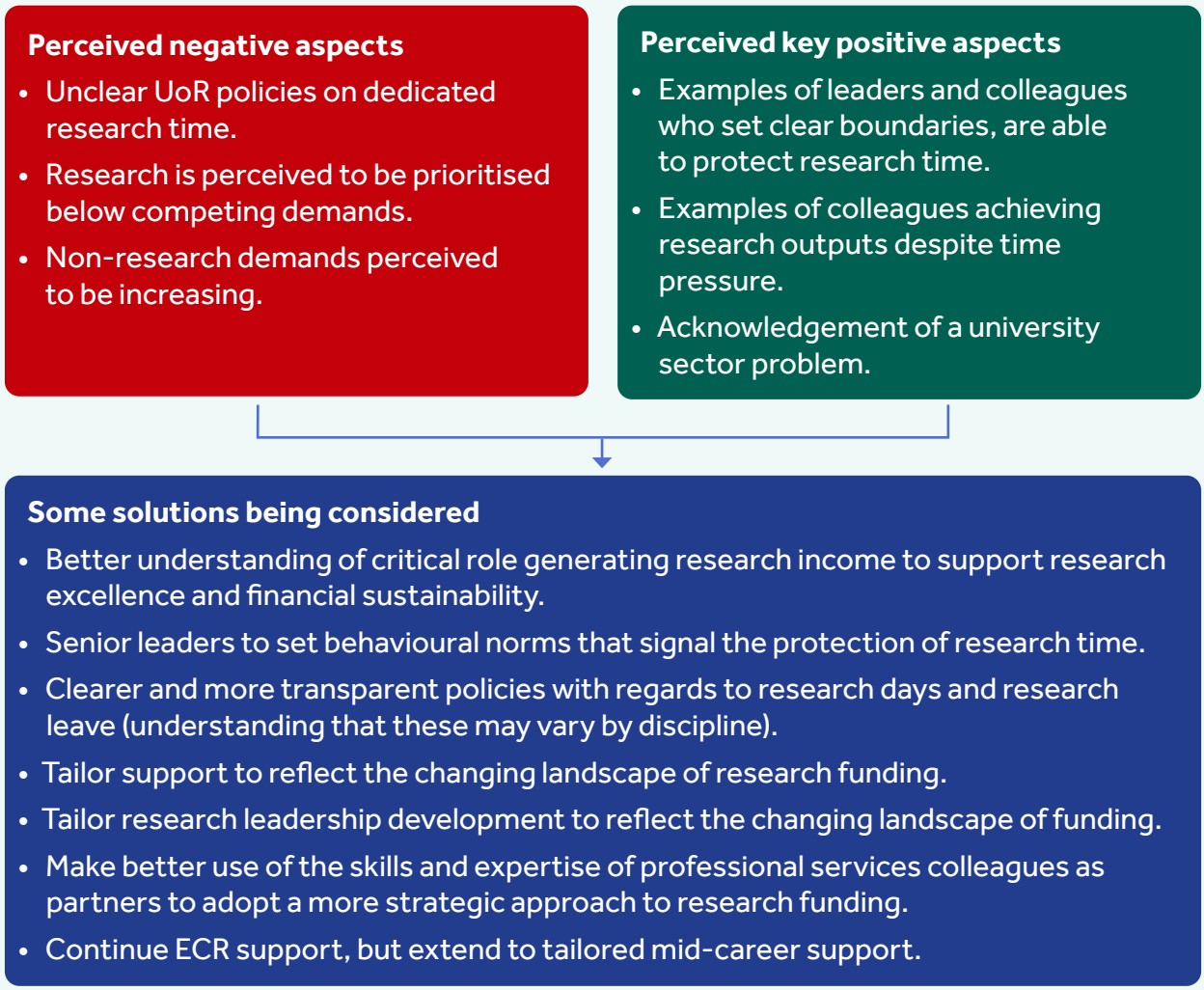
The topics featuring in the bottom six of the survey responses prompted considerable discussion by the UCRI and there was particular focus on time pressure and research support (personal, IT and technical). Although the 2023 focus groups took place ahead of the survey, we reviewed them side-by-side and noted the high degree of alignment.

Both the survey and the focus groups suggested that once researchers reach the mid-career stage they start to feel the pressures of workload and competing priorities, and this often comes at a time when there are additional demands in their personal lives and a falling away of the support that benefits early career researchers. The UCRI are considering a range of options for a mid-career support package, from targeted internal funding streams to providing coaching and mentoring specifically tailored to meet the needs of researchers at this stage in their careers.

Research at Reading was perceived to be prioritised below competing demands and policies on dedicated research time were seen to be lacking, but there were positive comments about senior leaders who set clear boundaries to protect their own research time (summarised in Figure R1 below), and we would like this to be the norm. The concerns that non-research demands are increasing are legitimate and to some extent, this is a sector-wide issue.

We commit to working with the PVCs and Deans for Education and Student Experience to take a holistic view of teaching and research and to ensure that the objectives of initiatives such as the Portfolio Review Programme are fully realised in order to streamline administration and reduce burden. Schools, departments and individuals must also play their part in regular review. The scope and nature of solutions to address time pressure and personal support for research being considered by the UCRI are summarised in Figure R1.

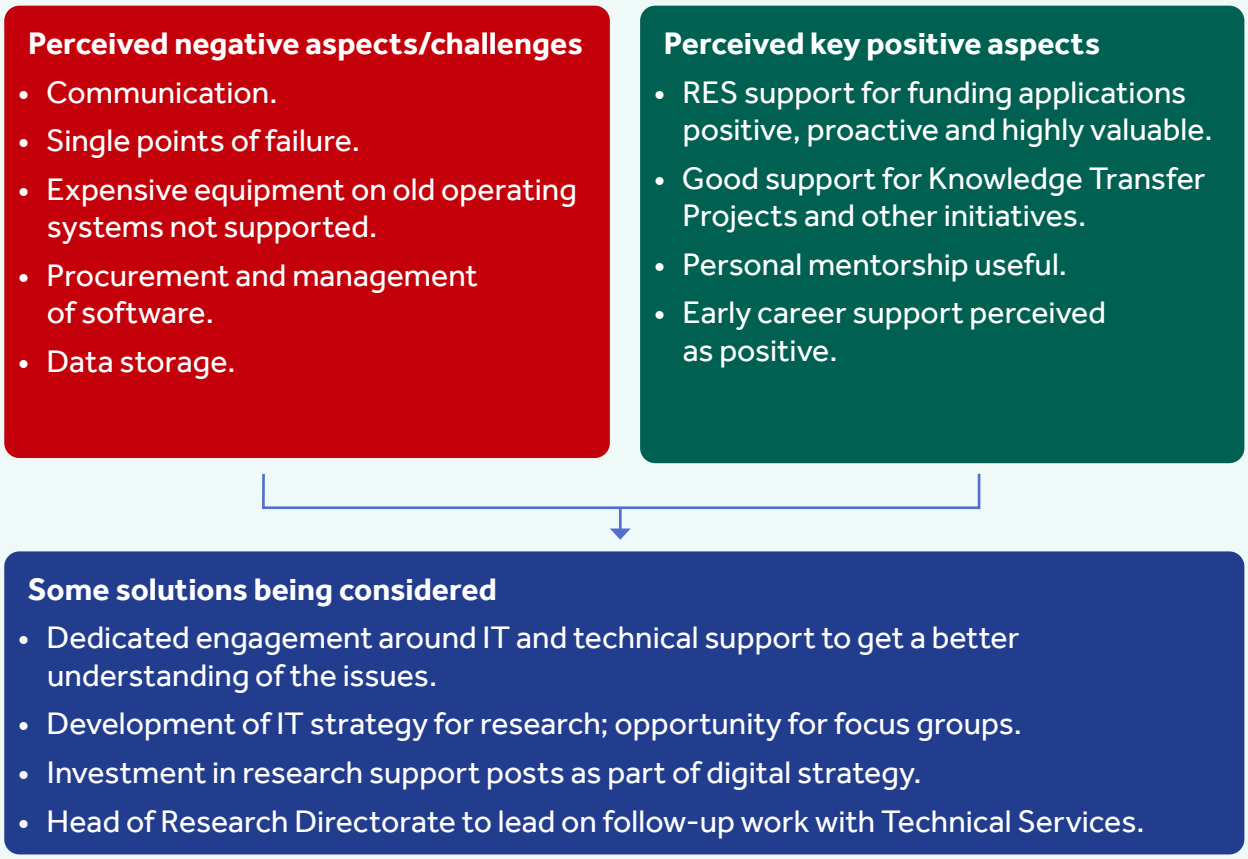
Figure R1 Solutions being considered by the UCRI to address time pressure and personal support for research



The survey question relating to IT and technical support, which also scored poorly, was not designed to unpack specific issues and was therefore supplemented with direct conversations between Research Deans and researchers to explore the issues. These mainly related to communication, single points of failure, prioritisation of teaching due to lack of understanding of research needs, lack of support for expensive equipment on operating systems which are no longer supported, procurement and management of software and data storage (Figure R2).

Progress in addressing these issues is already being made with the development of an IT strategy for research, led by the Deputy Director of DTS, which will cover infrastructure, operations and data storage. Researchers will have an opportunity to contribute to focus groups on the strategy and there are plans to invest in up to three posts to support research, including a digital research manager. The Head of the Research Directorate, which manages the Technical Services function, plans to follow up this survey with a more in-depth exploration and will be working directly with me on actions identified as a result of that. As indicated in Figure R2, there were positive comments about the proactive and highly valuable support for research funding applications, knowledge transfer projects and other initiatives.

Figure R2 Solutions being considered by the UCRI to improve IT and technical support



When we started this project, we were clear that we wanted to understand what mattered most to our researchers and research support colleagues; the survey and focus groups have helped us to do that, but we need to continue to maintain good communication with all of our stakeholders and to encourage colleagues to feel empowered to have conversations about research culture in their day to day work. We need strong leadership that sets the tone and direction, and in endorsing this report, I commit to leading the actions outlined above. Establishing and maintaining a positive research culture requires continual improvement and I look forward to working with our vibrant research community to ensure that both our research and our people reach their full potential.

Professor Parveen Yaqoob
Pro-Vice-Chancellor Research & Innovation

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Perceptions of Research Culture at the University of Reading

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Over the last few years there has been a progressive move in the higher education sector towards appreciating the quality of our research environment and the way we conduct and support research rather than simply judging its outputs. With many universities responding to the call for action to improve research culture, we decided to ask our research community at the University of Reading what it defined as a positive culture and how it perceived our research culture.

This report presents the findings from two surveys and in-depth focus group discussions held over a period of two years with academics and staff from professional services teams. The study reveals clear consistencies in findings, suggesting that staff from across different roles and functions experience our research culture in broadly similar ways. The focus groups also permitted discussion of how to nurture and enhance our research culture and overcome some of the its negative aspects of the current culture.

The findings and discussions described in this report will inform actions to improve our research culture. We all have a role to play in supporting a positive research culture and this report is intended to encourage open dialogue about how we achieve it.

Perceptions of Research Culture at the University of Reading

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Athena SWAN Silver Award

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