

Final Equality Impact Assessment

July 2021



Research Excellence Framework 2021



1. INTRODUCTION

The Research Excellence Framework (REF) is the system for assessing research in UK higher education institutions (HEIs). It is jointly conducted by the four UK HE funding bodies: Research England, the Scottish Funding Council, the Higher Education Funding Council for Wales, and the Department for the Economy, Northern Ireland. The REF is a process of expert review, undertaken by expert panels for each of the 34 subject-based units of assessment. For each submission made into each unit of assessment by an HEI, three distinct elements are assessed: **outputs** (e.g. publications, performances and exhibitions), the **impact** of the research beyond academia, and the **environment** that supports research activities. The outcomes of REF 2021 will be used to inform block grant funding provided through the four UK funding bodies from academic year 2022–23.

An **Equality Impact Assessment** (EIA) is a thorough and systematic analysis to determine whether an institution's processes may have a differential impact on particular groups of staff by reference to one or more protected characteristics (see Section 3). As set out in the *Guidance on codes of practice*¹, the funding bodies require all HEIs to conduct EIAs on their policies and procedures for identifying staff with significant responsibility for research, determining research independence and for selecting outputs for REF 2021. These policies and procedures, the wider context, and measures taken to embed equality, diversity and inclusion (EDI) in our REF processes, are set out in the University's [REF 2021 Code of Practice](#).

This report presents an EIA of all staff holding *Teaching & Research* (AEF 3)² or *Research-only* (AEF 2) contracts on the REF census date (31 July 2020). Quantitative data was drawn from University systems to support an analysis of protected characteristics including age, disability, gender, marriage status, nationality, ethnicity, religion, sexual orientation, gender reassignment and pregnancy/maternity. It builds on the interim EIA prepared in July 2019 which was published on our intranet and accessible by all staff. The interim EIA was extensively discussed by the teams involved in preparing the REF2021 return within each Unit of Assessment, the Research and Enterprise Executive Group and the University Executive Board, stimulating further reflection on equality and unconscious biases within senior management teams in each Faculty.

To ensure oversight of equality issues, the University *REF Equality, Diversity & Inclusion Committee* was responsible for overall governance of the process. This group was chaired by Prof. Jane Falkingham, Dean of Social Sciences on behalf of the University Executive Board. The EIA was prepared under the auspices of the REF EIA Sub-group comprising Prof. Sue Latter (Health Sciences), Prof. Tony Kelly (Education), Dr. Remy Ambuhl (History), Dr. Jon Dawson (Medicine), Dr Eleanor Wilkinson (UCU representative) and Professional Services colleagues from the Library, Human Resources and Research & Innovation Services, Wendy White, Paul Bonaer, Jacqui Glynn, Camilla Gibson, Peter Staniczenko, and Dr. Gemma Fitzsimmons who is the lead author.

The analyses undertaken for this report involve statistical tests to explore whether counts or means differ between groups. The results of these tests include a significance value, referred to as a *p* value which can be used to determine whether groups are significantly different from each other. We have used a *p* value of 0.05 as the cut-off for significance as is standard in this area; if a *p*-value is less than 0.05 we can conclude that a significant difference exists between the groups. Any significant differences identified are explored further.

¹*Guidance on codes of practice (2019/03)* (paras 59–72)

²HESA Academic Employment Function (AEF) is a determining factor in the eligibility of staff for REF 2021.

2. SCOPE OF EQUALITY IMPACT ASSESSMENT

The EIA investigated the following areas in respect of protected characteristics:

- Discrimination when identifying REF-eligible staff
- Discrimination when determining research independence of Research-only staff
- Impact of protected characteristics on the assessment of the quality of research
- Impact of protected characteristics when selecting outputs for submission
- Discrimination in the assignment of Impact Case Study authors and their assessment
- Discrimination in the assignment of Environment Statement authors and their assessment

The first four areas are explored in section 5 and the last two in section 6.

3. PROTECTED CHARACTERISTICS

Discrimination means treating someone unfairly because of who they are or because of who they are associated with. The nine characteristics protected by the *Equality Act 2010* are:

- a. Age*
- b. Disability
- c. Gender reassignment
- d. Marriage & civil partnership
- e. Pregnancy and maternity*
- f. Race[^]
- g. Religion and/or belief
- h. Sexual orientation
- i. Sex*[§]

* Mandatory fields that have been fully completed for all staff members and held in our Human Resources system. All other demographic fields are optional. Full data is also available for *Nationality* which is analysed in the section on *Race*.

[^] Indicated by Nationality and Ethnicity in our HR system

⁺ Self-declared through the Staff Circumstances process.

[§] Use of the terms “female” and “male” in the analyses reflects the data held in our information systems. The future inclusion of gender identity is addressed in section 8 *Recommendations*.

Part-time working is not a protected characteristic nor a factor in REF 2021 for staff circumstances. However, it is unlawful to discriminate against employees because they work part-time, and an analysis has therefore been included.

The REF guidance specifies that staff in a *Research-only* post must be able to demonstrate research independence by meeting the criteria listed. The University's *Code of Practice* includes a section on *Eligibility Criteria* to assist Faculties in the identification of independent researchers, and every researcher that met these criteria was included in the REF submission.

Discrimination during an individual's research career could adversely affect their opportunity to meet the research independence criteria. Measures in place to raise awareness of the importance of preventing discrimination include the University's policies for promotion (including interview training that covers unconscious and implicit bias) and our long-term commitment to the career development of researchers as demonstrated by the retention of the European Commission HR Excellence in Research award in 2018 (originally awarded in 2012).

Mitigations in place to prevent an individual's outputs being adversely graded because of discrimination included:

- completion of mandatory REF Equality, Diversity & Inclusion training for all staff with decision-making responsibilities for REF 2021;
- a mechanism through which individuals could appeal against non-selection for REF 2021, the grounds for appeal including those relating to any protected characteristic under the *Equality Act 2010*;
- outputs assessed by at least two experienced staff.

4. POPULATIONS INCLUDED IN THE ANALYSIS

We returned 1413 researchers (1313.61 FTE) to REF 2021 across all eligible posts (Table 1). This includes all *Teaching & Research* posts (meeting the eligibility criteria) as these have a significant responsibility for research as part of that role.

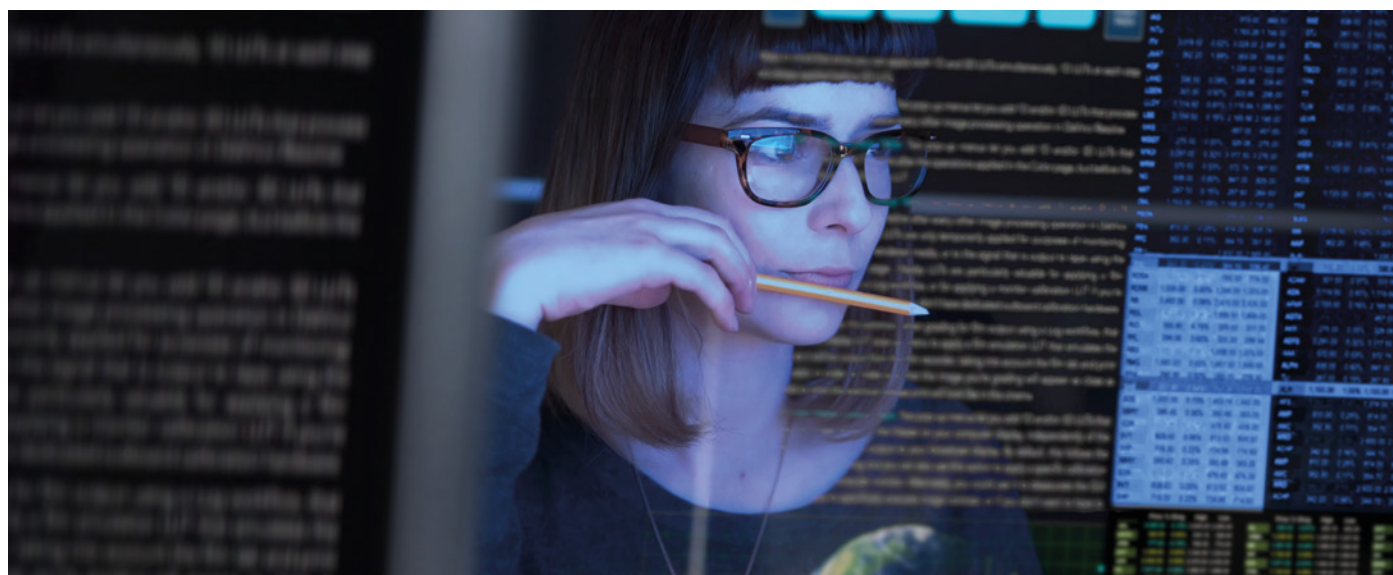
As set out in the University's *Code of Practice*, *Research-only* posts comprise independent researchers, researchers working on projects led by other researchers, or specialist staff such as computer programmers and software engineers. We developed robust processes to identify *Research-only* staff who met the independent researcher criteria³ as summarised in Table 2. Level 4 staff in this group are predominantly researchers holding competitively-won fellowships, with Research Assistants (RAs) forming the majority of non *REF-eligible* staff.

Table 1.
Headcount and FTE for all Researchers split by Post

| Count | Teaching & Research | Research-only REF-eligible | Total REF Eligible | Research-only not-eligible | Total Researchers |
|-----------|---------------------|----------------------------|--------------------|----------------------------|-------------------|
| Headcount | 1256 | 157 | 1413 | 104 | 1517 |
| FTE | 1169.61 | 144.00 | 1313.61 | 90.85 | 1404.46 |

Table 2.
Headcount for all Researchers split by Post and Seniority Level

| Post | Level 4 | Level 5 | Level 6 | Level 7 | Totals |
|--------------------------------|---------|---------|---------|---------|--------|
| Teaching and Research | 31 | 291 | 414 | 520 | 1256 |
| REF-eligible Research-only | 32 | 78 | 31 | 16 | 157 |
| Non REF-eligible Research-only | RAs | 97 | 6 | 1 | 104 |
| Headcount Totals | 63 | 466 | 451 | 537 | 1517 |



³ As defined in the *Guidance on submissions* (2019/01) (paras 128–134)

5. ANALYSIS OF STAFF AND OUTPUTS

The sections below explain how each protected characteristic has been analysed to address the following issues:

- *Possible discrimination in determining the research independence of Research-only staff.*
Explores differences between staff on a *Research-only* contract who are REF-eligible and those that do not meet the REF-eligibility criteria.
- *Impact of protected characteristics on the assessment of the quality of research.*
Explores differences in assessment (grades) due to those protected characteristics for both *Teaching & Research* staff and *Research-only* staff who are REF-eligible.

The selection of outputs was guided by anonymised data in an optimisation tool, and as explained in the Code of Practice, was largely “blind” to the protected characteristics of staff and their outputs. The ranked list of outputs produced by the tool was reviewed by respective Unit of Assessment (UOA) Committees to ensure that the:

- allocation of outputs to authors was rational⁴
- allocation of outputs to former staff was not excessive⁵
- total number of outputs allocated (including those from former staff) was accurate.

The final selection of outputs was made by the Associate Dean Research on the advice of the UOA Committee which could refer any disagreement to the Dean of Faculty whose decision was final.

In the tables and figures in this document, counts of less than ten have been removed or combined with adjacent categories to protect confidentiality. References to the “Act” mean the *Equality Act 2010*.

a) Age

Discrimination when determining research independence of Research-only staff

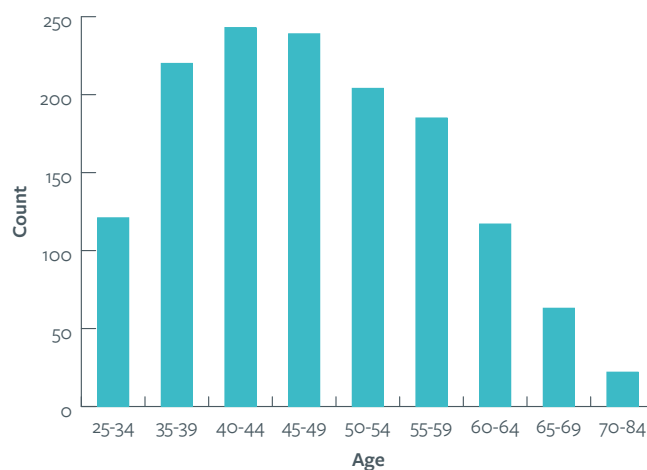
Risk: Researchers may be treated less favourably depending on their age.

Prevention: *The University recognises that people of all ages can contribute to society, innovation and education. The REF Equality, Diversity & Inclusion (EDI) training provided, highlighted age-related issues with regards to research.*

Analysis: The average age of REF-eligible Research-only staff is 42.2 years, and non REF-eligible *Research-only* staff 43.4 years. For comparison, the average for *Teaching & Research* staff is 48.6 years.

Figures 1, 2 and 3 show that age across the different groups is similarly distributed. The differences in the means are not statistically significant.

Figure 1.
Histogram of the Age of all REF-eligible Staff



⁴ While the tool guided UOAs to an optimum submission, where outputs of equal quality were available for selection, the tool may not necessarily have produced the best submission possible; for example, balancing research areas or removing outputs at risk of being scored lower than anticipated. Accordingly, final decisions were based on the output risk rather than the author or co-author.

⁵ We imposed a limit on the number of outputs from former staff so that the submission largely comprised the work of current staff as this best represents the sustainability of our research.

Figure 2.
Histogram of the Age of REF-eligible Research-only Staff

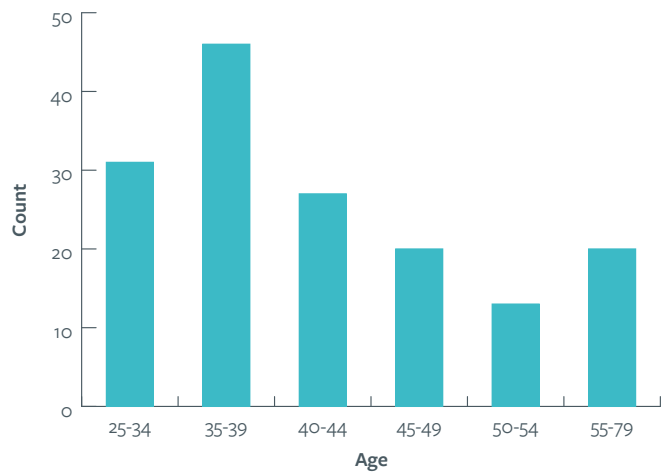
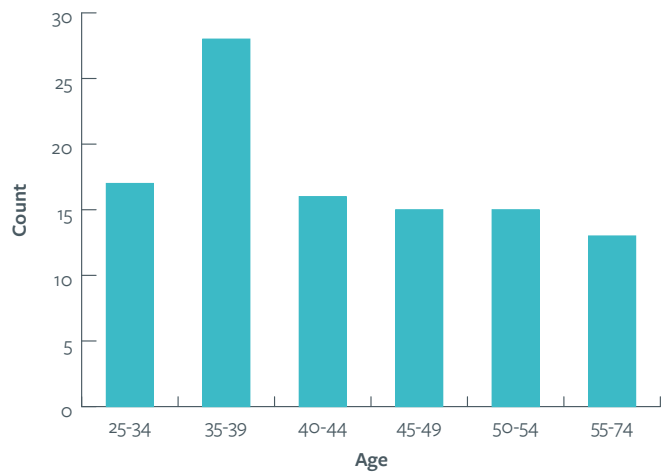


Figure 3.
Histogram of the Age of Non-REF eligible Research-only Staff



Impact of protected characteristics on the assessment of the quality of research

Risk: New researchers are likely to be less experienced than more senior colleagues which may affect their ability to produce high-quality research.

Prevention: *Early career researchers of any age were eligible for a reduction in outputs depending on how late during the REF 2021 assessment period they began their careers.*

Risk: An individual may need to take a period of absence from work to care for their dependants, reducing the time available to undertake research.

Prevention: *Individuals with caring responsibilities could be eligible for a reduction in outputs depending on the impact of those responsibilities on their research during the REF 2021 assessment period.*

Analysis: Taking the top-graded output for each REF-eligible person, although there was some variation in the average grade by age for all REF-eligible staff, the differences between age groups was not significant at $p \leq 0.05$.



b) Disability

Discrimination when determining research independence of Research-only staff

Risk: An individual may not be able to meet the independence criteria if they have a disability that has had a negative impact on being able to conduct research.

Prevention: Under the Act, the University has a duty to make reasonable adjustments for an individual with known disabilities. Services exist to assess the needs of disabled employees and promote the implementation of adjustments as necessary. The University is involved in several areas to support students and staff with disabilities including: working in partnership with **AccessAble**, a nationally renowned charity dedicated to improving knowledge and awareness of the accessibility of public buildings; as a signatory to **Time to Change**, a national campaign to end mental health discrimination through better information and resources both for people with a mental health condition and their friends and colleagues; and as a **Disability Confident Leader**, a government scheme which supports employers to make the most of the talents disabled people can bring to the workplace.

Analysis: Fewer than 10 people in a Research-only post declared a disability. There is a disparity in the group sizes of eligible and non-eligible staff but examining the percentages of known disability in each group showed that these data are in line with the percentage of declared disability in the Teaching & Research group. There are no significant differences between the groups ($\chi^2 (2, N = 261) = 3.23, p = .198$).

Impact of protected characteristics on the assessment of the quality of research

Risk: Staff with a disability may not be afforded reasonable adjustments to ensure they are not disadvantaged compared to staff without a disability.

Prevention: Under the Act, the University has a duty to make reasonable adjustments for individuals with known disabilities. Services exist to assess the needs of disabled employees and promote the implementation of adjustments as necessary. If despite such adjustments, an individual's disability impacted their ability to undertake research during the REF 2021 assessment period, they could be eligible for a reduction in outputs.

Risk: An individual may need to take periods of absence from work to care for a disabled relative, reducing the time spent undertaking research.

Prevention: Individuals with caring responsibilities could be eligible for a reduction in outputs depending on the impact of those responsibilities on their research during the REF 2021 assessment period.

Analysis: The average grade of outputs for researchers with a known disability was slightly lower than those categorised as not-disabled. The difference is small and a statistical test would not be appropriate due to the small sample size of those with a known disability.

Table 3.
Percentage of Disability disclosures for Research-only staff

| Group | Declared disabled | Declared Not-disabled | Refused or not-known |
|--------------------------------|-------------------|-----------------------|----------------------|
| REF-eligible Research-only | <=10% | 92% | <=10% |
| Non REF-eligible Research-only | <=10% | 89% | <=10% |

c) Gender reassignment

Discrimination when determining research independence of Research-only staff and the Impact of protected characteristics on the assessment of the quality of research

Risk: An individual may need to take periods of absence from work to undergo gender reassignment, reducing the time spent applying for grants, undertaking research etc.

Prevention: *The University celebrates and values the diversity of its workforce and will at no time discriminate against people on the grounds of transvestism, transsexualism, intersex conditions or any process of gender reassignment, begun or complete; this is supported by our Gender identity policy. The individual could be eligible for a reduction in outputs depending on the impact of their gender reassignment on their research during the REF 2021 assessment period.*

Analysis: No REF-eligible staff have declared significant periods of absence due to gender reassignment through the process for voluntary declaration of individual circumstances.

d) Marriage and civil partnership

Discrimination when determining research independence of Research-only staff

Risk: An individual's geographic mobility or flexibility to modify work patterns may be limited by their partner's circumstances, which could adversely affect their ability to pursue opportunities for development or progression.

Prevention: *This demographic was not identified as an issue during the REF process.*

Analysis: Marital status is not a mandatory demographic and rarely updated as relationship statuses change. Uncertainty over the accuracy of the information held prevented robust conclusions being drawn from this data.

Impact of protected characteristics on the assessment of the quality of research

Risk: An individual could be assessed unfairly because of their marital status.

Prevention: *While this demographic is very unlikely to surface in the REF process, all assessors undertook EDI training which includes unconscious bias.*

Risk: Marital status is not a mandatory demographic and rarely updated as relationship statuses change. Uncertainty over the accuracy of the information held prevented robust conclusions being drawn from this data.

e) Pregnancy and maternity

Discrimination when determining research independence of Research-only staff and Impact of protected characteristics on the assessment of the quality of research

Risk: Individuals may need to take periods of absence from work for maternity, paternity or adoption leave.

Prevention: *Employment and Equality law makes provisions for paid maternity, paternity and adoption leave. Individuals who took such periods of leave substantially during the REF 2021 assessment period were eligible for a reduction in outputs. Further reductions were available for additional periods of absence during the REF 2021 assessment period due to complications relating to maternity, paternity or adoption. The University recognises Pregnancy and Maternity needs and promotes information about maternity/paternity rights as well as childcare support and flexible working options available to all staff.*

Analysis: The maternity data was processed as part of the Staff Circumstances process. Every REF eligible person who had taken maternity/paternity leave could submit this as part of the Staff Circumstances process and receive the appropriate reduction to the UOA pool of outputs or reduce their minimum number of outputs to be submitted to zero if they met the criteria. All maternity/paternity leaves submitted to this process (that met the Research England guidance criteria) were accepted.

Risk: Breastfeeding may be incompatible with an individual's research commitments, e.g. frequent travel or laboratory work with exposure to potentially harmful substances or radiation, and is likely to impact negatively on their ability to undertake research.

Prevention: *The Act emphasises maternity discrimination particularly in cases where a woman is breastfeeding. Significant disruption to an individual's ability to undertake research due to breastfeeding could be eligible for a reduction in outputs.*

Risk: Breastfeeding data is not held by the University and therefore this area was not analysed.

f) Race (nationality and ethnicity)

Discrimination when determining research independence of Research-only staff

Risk: An individual's ability to undertake research during the REF 2021 assessment period may be constrained by issues arising from racial discrimination.

Prevention: *The Act places an obligation on the University to take disciplinary action against those perpetrating racial discrimination. The University's Dignity at work and study policy states: "Any allegation of harassment, bullying or victimisation will be treated seriously, regardless of the seniority of those involved, and anyone found to have behaved unacceptably may be the subject of disciplinary action up to and including dismissal or expulsion". The University also supports the Black, Asian and Minority Ethnic (BAME) Staff Network which aims to raise awareness of and promote race equality and cultural diversity at the University, welcoming all black, Asian and minority ethnic staff and postgraduate research students.*

Analysis: For both Nationality and Ethnicity, there is little difference between the populations for REF-eligible and non REF-eligible Research-only researchers.

Nationality

Nationality data has been split into two categories, the European Economic Area (EEA) and the Rest of the World. There is no significant difference between the proportions of nationality between the two groups ($\chi^2 (1, N = 261) = .08, p = .776$).

Ethnicity

Ethnicity data is collected from an optional field in our HR system. The data was split into three categories as shown in Table 5. There is no significant difference in the proportions of ethnicity between the two groups ($\chi^2 (2, N = 261) = 3.93, p = .393$).

Table 4.
Percentages and Counts of Nationality for Research-only staff

| Group | EEA | Rest of World |
|--------------------------------|-------------|---------------|
| REF-eligible Research-only | 82.2% (129) | 17.8% (28) |
| Non REF-eligible Research-only | 80.8% (84) | 19.2% (20) |

Table 5.
Percentages and Counts of Ethnicity for Research-only staff

| Group | White | BAME | Unknown |
|--------------------------------|-------------|------------|-----------|
| REF-eligible Research-only | 72.6% (114) | 18.5% (29) | 8.9% (14) |
| Non REF-eligible Research-only | 73.1% (76) | 22.1% (23) | 4.8% (5) |

Impact of protected characteristics on the assessment of the quality of research

Risk: An individual may be discriminated against because of their nationality or ethnicity which could result in a biased assessment of their outputs.

Prevention: *The Act places an obligation on the University to take disciplinary action against those perpetrating racial discrimination. The University has robust processes in place and provides EDI training to raise awareness of unconscious bias.*

Analysis: There is little difference between the assessment of outputs by Nationality and Ethnicity, or between REF-eligible and non REF-eligible Research-only researchers.

Nationality

There are no significant differences between the outputs scores by Nationality (all $p > .1$)

Ethnicity

There are no significant differences between the outputs scores by Ethnicity (all $p > .1$)



g) Religion or belief

Discrimination when determining research independence of Research-only staff and Impact of protected characteristics on the assessment of the quality of research

Risk: An individual's ability to undertake research during the REF 2021 assessment period may be constrained by issues arising from discrimination due to their religion.

Prevention: *The Act places an obligation on the University to take disciplinary action against staff perpetrating discrimination based on religious belief. An individual could be eligible for a reduction in outputs if their ability to undertake research had been significantly affected by such discrimination. The University is a multicultural community with many religions, faiths and beliefs represented amongst staff and students. As supported by our [Religion and belief policy](#), people are supported and encouraged to express their beliefs openly and with understanding of others who may have complimentary or contrasting beliefs.*

Analysis: The number of individuals that have disclosed their religion or belief to the University is too low to draw any meaningful conclusions from the data. Two-thirds of staff have not completed this field. Of the remaining third, 14.2% declared a religious belief and 19.1% declared they did not have a religious belief.

h) Sexual orientation

Discrimination when determining research independence of Research-only staff and Impact of protected characteristics on the assessment of the quality of research

Risk: An individual's ability to undertake research during the REF 2021 assessment period may be constrained by complications arising from discrimination relating to their sexual orientation.

Prevention: *The Act places an obligation on the University to take disciplinary action against those perpetrating discrimination relating to sexual orientation. An individual could be eligible for a reduction in outputs if their ability to undertake research had been significantly affected due to discrimination relating to their sexual orientation.*

Analysis: The number of individuals that have disclosed their sexual orientation to the University is too low to draw any meaningful conclusions from the data. The University supports the [Pulse LGBT+](#) network for staff who identify as gay, lesbian, bisexual, trans, asexual, queer, non-binary, gender fluid and their supporters. The network aims to work in partnership with the University and other LGBT+ networks to create a safe, inclusive and diverse working environment that encourages respect and equality for all, regardless of their sexual orientation and/or gender identity.



i) Sex

Discrimination when determining research independence of Research-only staff

Risk: Women may be treated less favourably than men which may be detrimental to achieving research independence.

Prevention: Sexual/gender equality is a long-standing concern for the University, especially for female staff, and various initiatives have been implemented to help address this issue. In addition, the REF EDI training highlighted gender-related issues with regards to research.

Analysis: The Female:Male split amongst all research-eligible staff in the University is 32:68 as shown in Table 6 below.

We used a Chi-squared test to compare the number of people in each group by gender:

Comparing the two REF-eligible groups (*Teaching & Research* and *Research-only* REF-eligible), there is no significant difference in the gender split for these two groups, ($\chi^2(1, N = 1413) = .79, p = .375$).

Table 6.
Percentage and Counts of Gender by Post

| Group | Female | Male |
|----------------------------|--------------------|--------------------|
| Teaching & Research | 31.5% (396) | 68.5% (860) |
| REF-eligible Research-only | 35.0% (55) | 65.0% (102) |
| All REF-eligible staff | 31.9% (451) | 68.1% (962) |

Impact of protected characteristics on the assessment of the quality of research

Risk: Women's research may be assessed less favourably than men's which could result in a lower rating for their research outputs.

Prevention: Gender equality is a long-standing concern for the University, particularly for female staff, and a number of initiatives have been pursued to help address this, including improving career development opportunities and ensuring that female staff have access to appropriate training that will support them to further their academic career. This includes the Springboard development programme, career guidance and peer mentoring programmes, and the staff network *WiSET* (Women in Science, Engineering and Technology). In addition, the REF EDI training highlights gender-related issues.

Analysis: Taking the top-graded output for each REF-eligible person, we see a difference between Females and Males. We explored whether there was a difference between grades dependent on Gender and Post-type. We found there was no difference in grades between the *Teaching & Research* and *Research-only* posts, but we did find a difference between Males and Females. Exploring the differences in Gender we found that, overall, the difference is small but statistically significant and indicates that outputs produced by Males were assessed higher, on average, than Females⁶.

Table 7.
Difference in Average Output Grade by Gender for REF-eligible staff

| Group | Difference (Female – Male) |
|----------------------------|----------------------------|
| Teaching & Research | -0.17 |
| REF-eligible Research-only | -0.21 |
| Overall | -0.19 |

⁶ A 2 x 2 ANOVA (Analysis of Variance) was conducted exploring Gender (Male, Female) and Post type (T&R, Eligible Research-only). There was a significant effect for Gender ($F(1,3) = 14.05, p < .001$), but no significant effect for Post type, ($F(1,3) = .17, p = .684$). There was no significant interaction between the variables ($F(1,3) = .11, p = .735$).

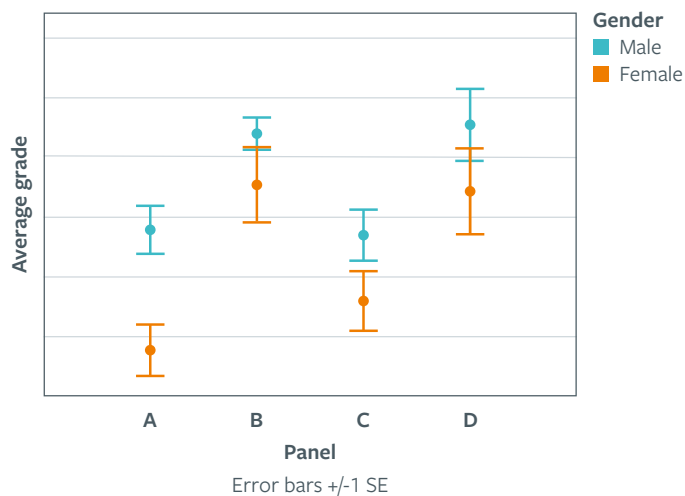
We further explored the assessment data, investigating if the difference in Gender varied by REF Main Panel (A, B, C, D) and found an effect for both Gender and Main Panel.

Male outputs were scored significantly higher than Female outputs, independent of Main Panel. Exploring the effect of Main Panel, we observed when running post-hoc comparisons that Main Panels A and C had a significantly lower average grade than Main Panels B and D⁷.

Table 8.
Difference in Average Output Grade by Gender and Main Panel

| Main Panel | Difference (Female – Male) |
|------------|----------------------------|
| A | -0.20 |
| B | -0.08 |
| C | -0.11 |
| D | -0.11 |

Figure 4.
Grade difference for Outputs by Gender and Main Panel



Seniority and Gender Assessment

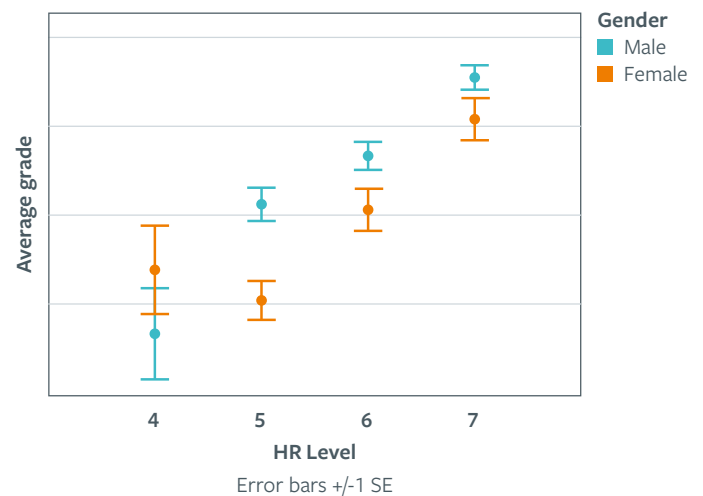
To further explore this gender difference, we considered the impact of seniority in the form of staff levels.

As noted earlier, the Grade used for each staff member is the top grade of any output that has been assessed for which they are a co-author. Therefore, if a Male and a Female share a 4* output, both will be given 4* in this dataset. Table 9 presents a breakdown of REF-eligible staff by gender and level. We observe that the gender gap increases with seniority level.

Table 9.
Count of REF-eligible staff by Gender and Seniority Level

| Level | Females | Males |
|--------------|------------------|------------------|
| 4 | 34 | 29 |
| 5 | 151 | 218 |
| 6 | 133 | 312 |
| 7 | 133 | 403 |
| Total | 451 (32%) | 962 (68%) |

Figure 5.
Grade Difference for Outputs by Gender and Seniority Level



In Figure 5 we explore the impact of Gender and Seniority on Average Grade. Except for Level 4 where the staff counts are much lower, Figure 5 shows a significant difference in the average grade of outputs between genders at levels 5, 6 and 7⁸.

⁷ A 2 x 4 ANOVA (Analysis of Variance) was conducted exploring Gender (Male, Female) and Panel (A, B, C, D). There was no significant interaction ($F(3,7) = .65, p = .581$), but there were significant independent effects for Gender ($F(1,3) = 12.51, p < .001$) and for Panel ($F(1,3) = 11.49, p < .001$)

⁸ A 2 x 4 ANOVA (Analysis of Variance) was conducted exploring Gender (Male, Female) and Level (4, 5, 6, 7). There was no significant interaction ($F(3,7) = .20, p = .554$), but there were significant independent effects for Gender ($F(1,3) = 7.35, p < .005$) and Level ($F(1,3) = 37.76, p < .001$).

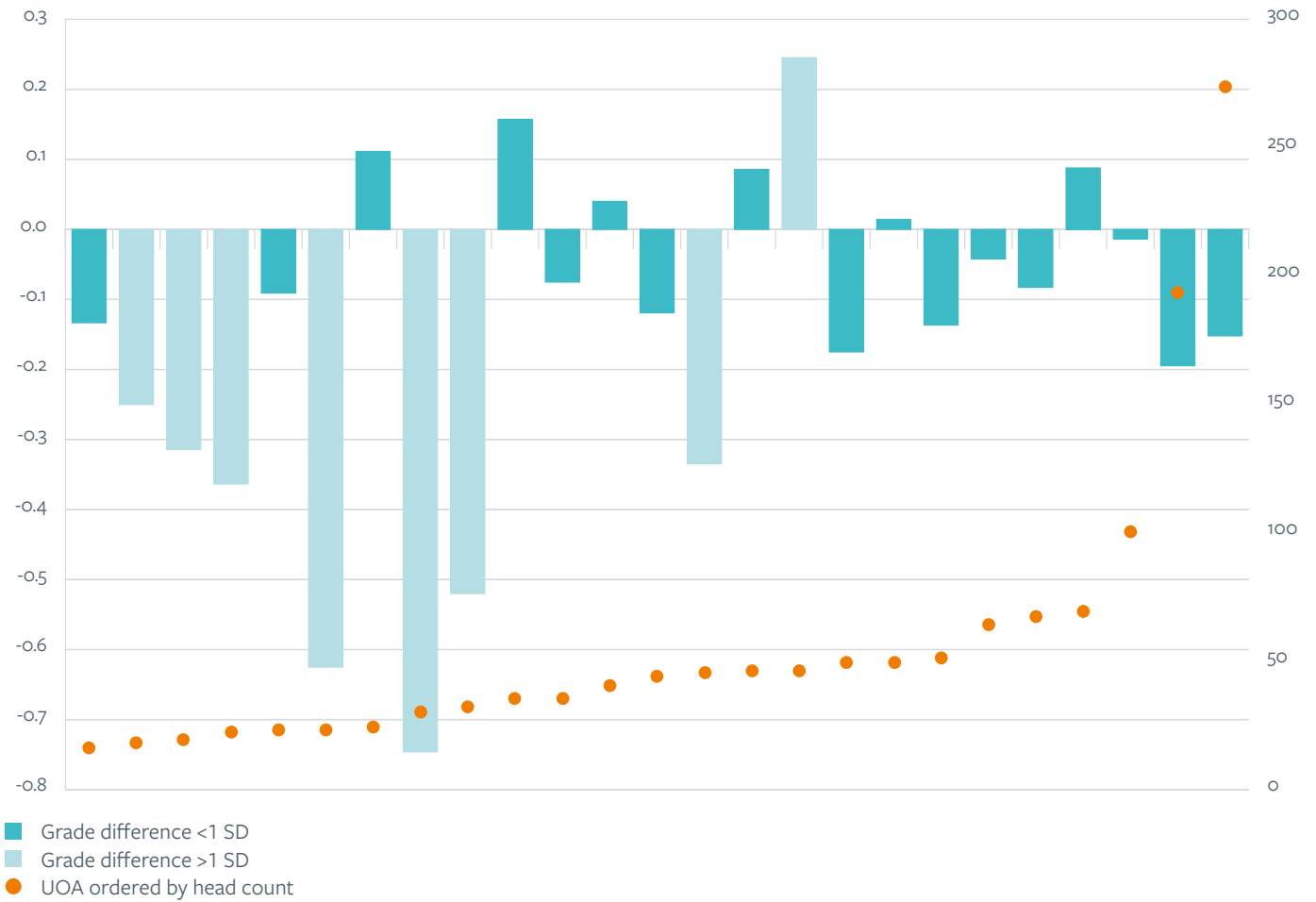
Gender Split by Unit of Assessment (UOA)

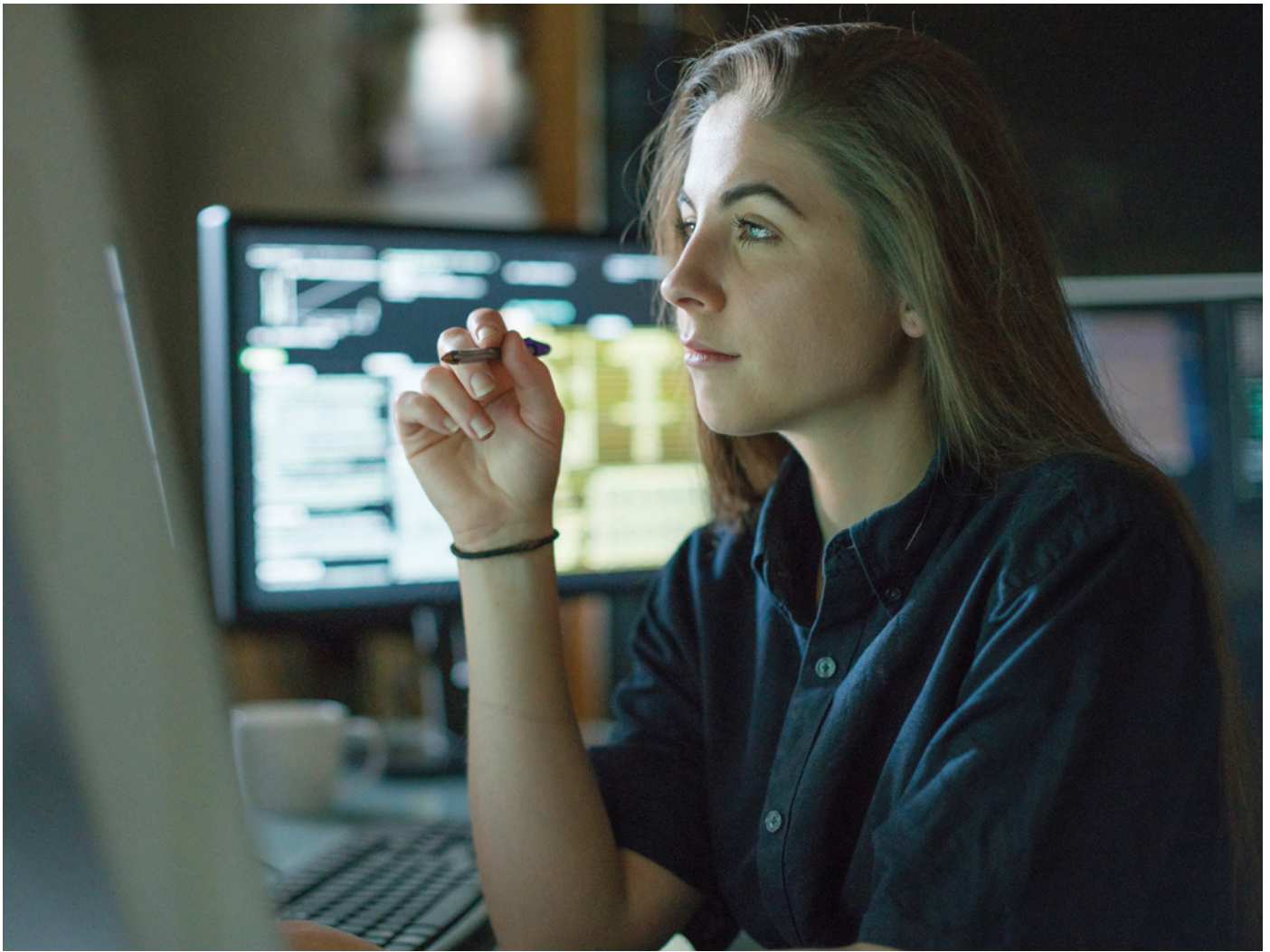
We also looked at the average grade of outputs by gender, split by Unit of Assessment (each UOA represents an individual discipline such as Psychology, Mathematics or Modern Languages). Across our 25 UOAs, the size (headcount) ranges from 16 to 273 with a median of 40 staff. Figure 6 shows the grade difference (Female minus Male) and headcount by UOA. Differences greater than *one standard deviation (SD)* from the mean (+0.24) are shown by lighter coloured bars.

The largest differences between gender scores tend to be in smaller UOAs (less than 40 headcount) where the mean is more sensitive to individual scores.

Senior managers in each UOA were invited to comment on this analysis and took actions locally as well as providing feedback (see *Section 7, Key Findings*).

Figure 6.
Gender Grade Difference by Unit of Assessment





j) Part-time working

Discrimination when determining research independence of Research-only staff

Risk: Individuals who work part-time may be unable to commit as much time to research as their full-time colleagues and may not produce the same volume of research while maintaining a high standard.

Prevention: *Employment law makes it unlawful to discriminate against employees because they work part-time. The University is committed to flexible working for all its employees. Policies covering flexible working and flexible retirement recognise the benefits to both staff and the University. Additionally, there is an expectation of staff not to discriminate or treat others unfavourably because they work part-time or flexibly. Part-time working is taken into account within the calculation for the overall number of outputs required for the UOA but reduction requests may be made exceptionally, for example, where the hours worked by a staff member late in the assessment period does not reflect the average worked over the period as a whole.*

Analysis: There is no significant difference between the number of people in the REF-eligible and Non REF-eligible *Research-only* groups that are full-time compared to those who are part-time ($X^2 (1, N = 261) = 2.00, p = .158$).

Table 10.
Count of Full time and Part-time staff for Research-only staff

| Group | Full time | Part-time |
|--------------------------------|-------------|------------|
| REF-eligible Research-only | 121 (77.1%) | 36 (22.9%) |
| Non REF-eligible Research-only | 72 (69.2%) | 32 (30.8%) |

There was also no significant difference in the number of staff in full-time and part-time posts between the seniority levels for *Research-only* staff (REF-eligible: ($X^2 (3, N = 157) = 4.59, p = .205$); non REF-eligible: ($X^2 (2, N = 104) = 1.52, p = .467$)).

Impact of protected characteristics on the assessment of the quality of research

Risk: An individual working part-time may be treated less favourably than full-time staff resulting in a lower rating for their research.

Prevention: *Employment law makes it unlawful to discriminate against employees because they work part-time. The University supports flexible working and has a number of options that are a variation from a 'standard' working pattern.*

Analysis: Taking the top-graded output for each REF-eligible person, there is no significant difference between the grades of outputs for full-time and part-time members of staff (all $p > .05$).

6. ANALYSIS OF IMPACT CASE STUDIES AND ENVIRONMENT STATEMENTS

Tables 11 and 12 show the percentage of female and male authors/co-authors for the 104 impact case studies and 25 environment statements (REF 5b) that were submitted to REF 2021. The analysis is based on up to two authors for each impact case study and environment statement, as this represents the average number for each document type (to the nearest whole number). The gender splits are consistent with the 32:68 ratio of Female:Male REF-eligible staff.

Table 11.
Percentage of Impact Case Study Authors by Gender

| Impact Case Studies | Female | Male |
|---------------------|--------|------|
| Authors/Co-authors | 37% | 63% |

Table 12.
Percentage of Environment Statement Authors by Gender

| Environment | Female | Male |
|--------------------|--------|------|
| Authors/Co-authors | 35% | 65% |

Having completed an expert review of impact case studies in early-2020 (with late additions assessed using the same process), we used the average grades to determine if there was any apparent difference between the scores depending on the authors' gender. The Impact case studies were divided into three groups as shown in Table 13.

Table 13.
Summary of Impact Case Studies and the Average GPA

| Authors | Number of ICS | Difference from Average Grade |
|-----------------|---------------|-------------------------------|
| Female and Male | 34 | +0.05 |
| Male only | 47 | -0.01 |
| Female only | 23 | -0.06 |
| Total/Average | 104 | n/a |

An Analysis of Variance (ANOVA) on these data showed no significant difference between the potential scores for the groups $F(1,2) = 1.24, p = .294$.

During a final review of Environment statements (REF5b), a four-strong panel provided an assessment with each UOA assessed at least twice, and in ten cases by three assessors. A breakdown by gender groups is shown in Table 14.

Table 14.
Summary of Environment Statements (REF 5b) and the Average GPA

| Authors | Number of REF5b | Difference from Average Grade |
|-----------------|-----------------|-------------------------------|
| Female and Male | 3 | +0.02 |
| Male only | 15 | -0.04 |
| Female only | 7 | +0.07 |
| Total/Average | 25 | n/a |

An Analysis of Variance (ANOVA) on these data showed no significant difference between the scores for the groups $F(1,2) = .81, p = .459$.

7. KEY FINDINGS

The funding bodies require all HEIs to conduct equality impact assessments (EIA) on their policies and procedures for identifying staff with significant responsibility for research, determining research independence and for selecting outputs for REF 2021. The key findings reflect the scope of this Equality Impact Assessment as set out in Section 2.

- a) There is no evidence of discrimination in the identification of REF-eligible staff, or in determining the research independence of *Research-only* staff.
- b) For the assessment of the quality of research, we identified significant differences in our gender data. Our REF-eligible groups contain more males than females, a difference which increases with seniority of post (Table 9). We also observed that males' outputs were assessed on average higher than females' outputs. This is consistent across Panels (Figure 4) and seniority level (Figure 5).
- c) There is no evidence of discrimination when selecting outputs for submission based on the protected characteristics of Age, Disability and Race (nationality and ethnicity), or staff working part-time. Our data for the protected characteristics of Marriage and civil partnership, Religion, and Sexual orientation are unreliable in this context as staff completion of University-held data on these fields is optional.
- d) There is no evidence of discrimination in the assignment of authors to Impact Case Studies or their assessment.
- e) There is no evidence of discrimination in the assignment of authors to Environment Statements or their assessment.

The preparation and dissemination of this Equality Impact Assessment has prompted ongoing and future actions to promote fairer outcomes for all researchers. This has been a living document with an earlier iteration considered by School/Faculty EDI Committees and REF processes adjusted where necessary.

Immediate interventions made by UOAs during the University's REF preparations include:

- Carefully considering the key equality, diversity and inclusion issues in selecting both internal and external reviewers for REF 2021 outputs, including aiming to ensure an appropriate balance of seniority, disciplines, gender and ethnicity amongst reviewers.
- Adding notes to the forms issued to REF benchmarking reviewers to remind them of the possibility of unconscious biases and that outputs should be reviewed purely based on the quality of the research.
- Communication of best practice for assessing outputs, and reassessing outputs graded in earlier years to ensure consistency and fairness.
- Discussing EIA findings at School meetings.



8. RECOMMENDATIONS

The recommendations below have been developed to prevent discrimination and advance equality. To ensure consistency with institutional EDI processes and action plans, responsibility for review and implementation of these recommendations rests with the University Equality, Diversity & Inclusion Committee which reports to the President & Vice-Chancellor and University Executive Board.

- a) Understand whether work by female colleagues and BAME colleagues is more highly represented in forms of research that are perceived as being less 'REF-fitted', for example, interdisciplinary work, as this may suggest that the kind of research perceived to score highly in REF itself enacts forms of gender and/or other biases.
- b) Commit to addressing gender imbalance including that observed across different levels of seniority and develop an action plan to further equality in recruitment, appraisal and promotions.
- c) Investigate the discrepancy seen in the assessment of outputs, explore the factors causing the gap between the genders, and recommend changes in the outputs review process for UoAs to reduce biases in the assessment of output quality.
- d) Include equality, diversity and inclusion as a standing item for School research committees.
- e) Informed by items (a)-(d), processes should be developed to identify EDI issues for all aspects of School operations. Outcomes should feed into institutional EDI processes to influence action plans and priorities, and include the means to support colleagues in addressing any issues discovered through these investigations.
- f) The EIA identified several protected characteristics for which data held by the University are incomplete or out-of-date. A review of procedures for the collection and maintenance of data should be undertaken with the aim of improving data quality and completeness within the constraints of the voluntary declaration of information.
- g) Until such time as a new system is implemented for the collection and storage of personal data and protected characteristics, the existing information system should be developed to allow for the recording of gender identity in addition to sex.







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