xR Stories

Designing more inclusive funding calls: Evidence, lessons and future directions

March 2026

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Designing more inclusive funding calls: Evidence, lessons and future directions

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In June 2025, we published a blog post, Celebrating the value of all voices, in which we set out a commitment to reviewing our working practices around funding calls delivered through XR Network+ as part of the Valuing Voices project. We have since worked with external facilitators from Ida XR Studio and colleagues from the University of York EDI Research Centre to review how XR Stories' internal team culture, processes and practices can be strengthened to foster a culture of inclusivity.

XR Network+ operates within the UK's creative industries research and innovation ecosystem, providing funding to researchers working in virtual production and supporting collaborations between academic researchers and industry. As such, the funding calls delivered through the programme form part of a wider landscape of research and innovation opportunities within the creative industries.

This report takes that work forward by examining how changes to funding call design were implemented in practice and what can be learned from them. Drawing on existing research on barriers to funding, alongside descriptive analysis of applicant and review data from XR Network+ funding calls run between 2023 and 2025, the report reflects on which aspects of funding call design appear to matter, where there are early indications of change, and where uncertainty remains.

Throughout, national and sector-level data are used as contextual reference points rather than standards of success. The analysis is not intended as a causal evaluation or a benchmark against national targets. Rather, it offers an evidence-informed account of programme-level interventions and their observed effects within the constraints of a small number of heterogeneous funding calls. The funding calls operate within wider structural conditions in academia and the creative industries, and changes at programme level cannot, on their own, resolve entrenched inequalities. However, programme teams do have discretion over how funding calls are designed, communicated and reviewed. This report focuses on those points of intervention and what can reasonably be learned from them.

1. The national picture

Access to research and innovation funding is uneven across sectors, with applications and outcomes differing systematically by applicant characteristics. Existing evidence shows that women, people from racially minoritised groups, LGBTQ+ individuals and disabled people face persistent barriers within funding processes (Boland, 2019; Gladstone et al., 2022; Jebsen et al., 2020; Schneider et al., 2024). These barriers operate alongside broader structural inequalities, documented in UK research culture and doctoral funding literature, which shape who is able to enter, remain in and progress within funded research and innovation environments. These include uneven access to mentorship and role models, lack of familiarity with funding processes, and a research culture characterised by high workload and uneven distribution of credit, which can promote exclusion and poor mental health (Sotiropoulou, 2022).

Data from Innovate UK (2024), drawing on over **4,400** applications submitted between March 2022 and March 2023, further illustrate inequalities in both application distribution and funding outcomes.

Only **6%** of applicants declared a disability

and just **4%** of funded applicants were disabled.

By comparison, an estimated **15.8%** of the UK workforce is disabled, indicating clear inequalities (Francis-Devine & Powell, 2026; Stiebahl et al., 2025).

In terms of ethnicity

70% of applicants identified as White

10% of applicants identified as Asian

5% of applicants identified as Black

However

White applicants accounted for **78%**

Asian applicants accounted for **9%**

Black applicants accounted for **1%**

of funded awards, indicating disparities in funding outcomes as well as applications.

According to the 2021 census the population of England and Wales identified as

81.7% of White

9.3% as Asian

4.0% as Black

2.9% as Mixed

2.1% as Other

(ONS, 2024)

There are similar inequalities in gender distribution.

66% Male applicants

29% Female applicants

0.55% non-binary applicants

Among funded projects,

67% were led by male applicants

29% were led by female applicants

0.36% were led by non-binary applicants

Within the creative industries, where XR Network+ and XR Stories operate, inequalities are also well documented. Research has identified entrenched patterns of exclusion and under-representation, particularly affecting women, people from ethnic minority backgrounds, disabled people and those from socio-economically disadvantaged backgrounds (Carey et al., 2021, 2024). Careers in the sector are strongly shaped by access to social, cultural and financial capital, which in turn affects who is positioned to pursue research, innovation and funding opportunities.

DCMS estimates that

17%

of people working in the creative industries are disabled (DCMS, 2025). Women are also under-represented relative to the national workforce.

These estimates indicate that

37.4%

of creative industries workers were women in 2024 (DCMS, 2025).

In contrast, based on the 2021 Census,

52%

of the overall employment in the UK, was accounted for by men.

compared to

48%

for women

The sector is slightly more racially diverse than the UK workforce as a whole:

84.1% of filled jobs across all employment were held by people from the White ethnic group

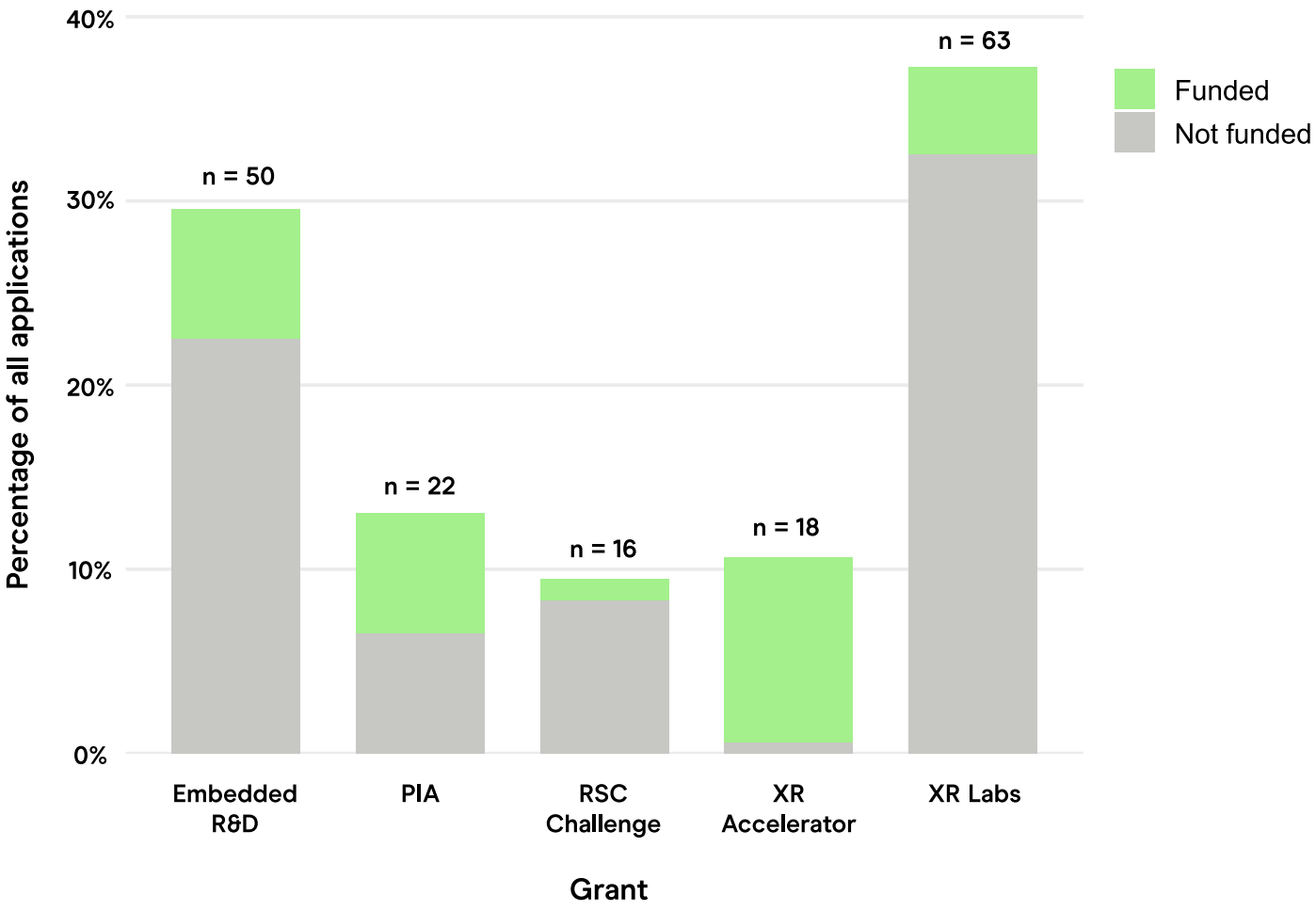
compared to **82.7%** in the creative industries (ONS, 2023; DCMS, 2025).

This national picture provides important context for understanding participation in funding calls that target research and innovation within the creative industries. It is not presented as a benchmark against which XR Network+ funding outcomes should be measured, nor as a target for proportional representation. Rather, it highlights the structural conditions within which funding calls operate and the uneven starting points from which potential applicants approach them. Against this backdrop, attention turns to the extent to which funding call design can reduce barriers to participation and increase who feels able to apply.

2. Overview of the funding calls

Between 2023 and 2025, we ran seven funding calls: Embedded R&D Grants Round 1 and Round 2 (June 2023 and June 2024), Prototyping, Impact and Accelerator (PIA) R&D Grants Round 1 and Round 2 (June 2023 and June 2024), XR Accelerator (March 2024), the Royal Shakespeare Company (RSC) R&D Challenge (August 2024) and the XR Labs Fund (September 2025). Across these calls, a total of 169 applications were received, of which 50 were funded. Figure 1 shows the share of total applications by grant.

Fig 1. Share of total applications by grant and funding outcome



These funding calls varied substantially in scope, eligibility and award size. Some calls, such as Embedded R&D and the RSC R&D Challenge, were designed to build on established academic-industry relationships and involved relatively high award values (£60,000 - £75,000), formal costings and, in the case of the RSC Challenge, a two-stage application process. Other calls, including the PIA grants and XR Labs Fund, focused on shorter-term prototyping, testing ideas or early-stage development, with lower award values (£10,000 - £25,000) and a stronger emphasis on accessibility for first-time applicants. XR Accelerator differed further in that it did not offer direct grant funding but instead provided a structured skills and in-person development programme. Table 1 shows a breakdown of each funding call, with the deadline for application and the grant size in offer.

Table 1. Breakdown of funding calls

Call	Deadline for Application	Grant Size
Embedded R&D Round 1	June 2023	£60,000
PIA Round 1	June 2023	£12,500
Embedded R&D Round 2	June 2024	£60,000
PIA Round 2	June 2024	£10,000
XR Accelerator	March 2024	£0
RSC Challenge	August 2024	£75,000
XR Labs	September 2025	£25,000

These differences have implications for who is able, or feels able, to apply. Requirements such as existing industry partnerships, full economic costing, multi-stage assessment, time commitments, or in-person attendance introduce varying threshold requirements in terms of experience, institutional support and personal capacity. As a result, differences between funding calls cannot be attributed to grant size alone. The heterogeneity of the calls means that patterns observed across applications should be interpreted cautiously, as they reflect a combination of funding amount, eligibility criteria and programme design rather than any single factor.

For each funding call, applicants were invited to complete an Equality and Inclusion monitoring form administered via Google Forms. The form collected data about the applicants' age, gender, ethnicity, sexual orientation, disability status and social class. Completion of the form was optional, and responses were not shared with reviewers or considered as part of the assessment process. There were 10 applications where an equality, diversity and inclusion (EDI) form was not filled in. As all questions within the form were optional, applicants could also choose not to disclose particular characteristics, either through selecting 'Prefer not to say' or by leaving the question blank.

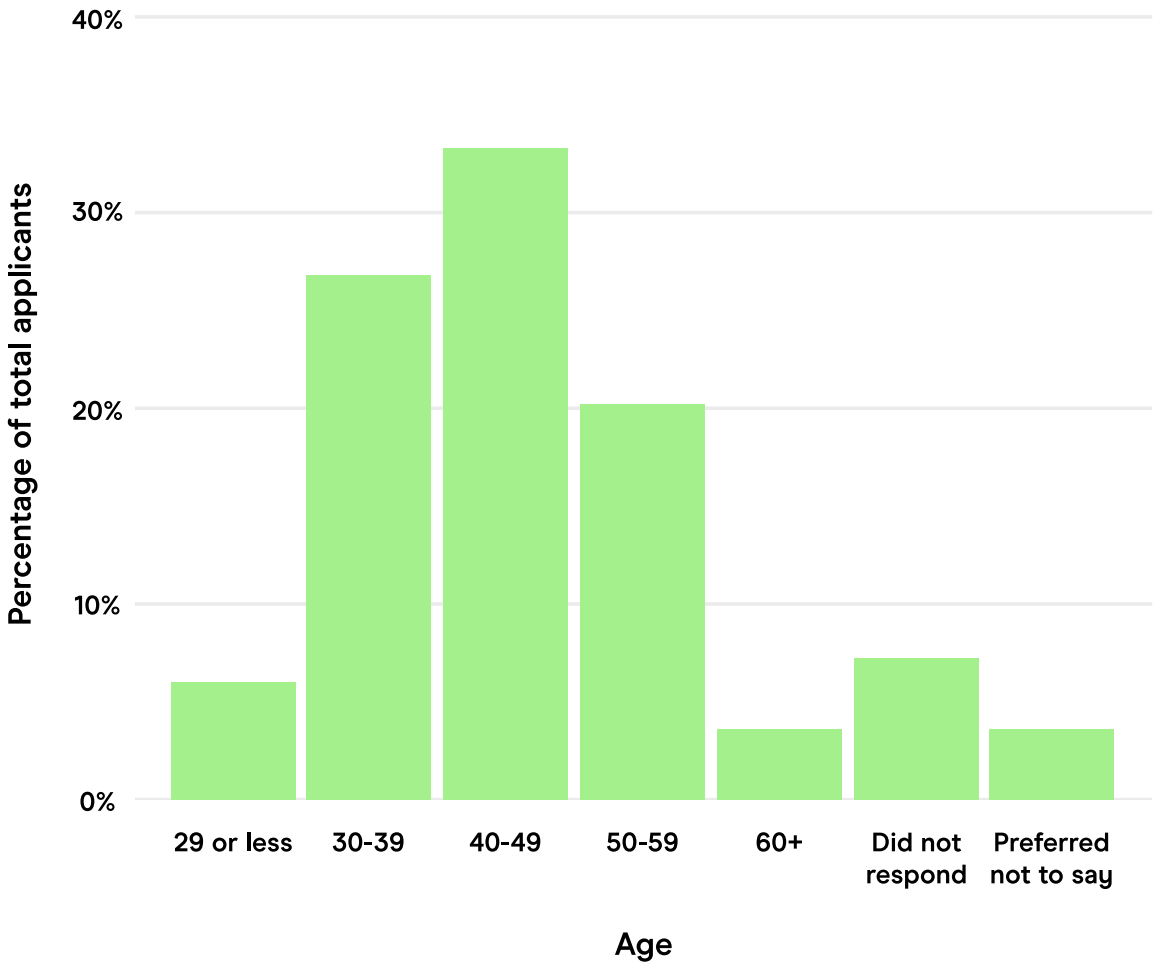
The analysis that follows draws on responses to these monitoring forms alongside application and funding outcomes. Given the heterogeneity of the funding calls and the relatively small number of awards within each, the findings are descriptive rather than inferential. They are intended to identify patterns across calls, rather than to attribute outcomes to any single funding mechanism or intervention.

2.1 Success rate

Across funding calls, the distribution of funded projects broadly mirrors the distribution of applications across most protected characteristics. This suggests that, at an aggregate level, there is no clear evidence that particular groups were systematically disadvantaged at review stage.

Figure 2 shows the age distribution of applications across all funding calls. Overall, applicants were most commonly aged 40–49 (33.7%), followed by those aged 30–39 (27.1%) and 50–59 (20.5%). Smaller proportions of applications came from those aged 29 or under (6.0%) or 60 and over (3.6%). The age profile of funded projects broadly mirrors this distribution. Funded projects were most often led by applicants aged 40–49 (38.0%), followed by those aged 30–39 (24.0%) and 50–59 (18.0%). Applicants aged 29 or under accounted for 10.0% of funded projects, although this figure is based on a very small number of cases (n = 5) and should therefore be interpreted with caution. Applicants aged 60 and over accounted for 4.0% of funded projects.

Fig 2. Age distribution of all applicants



In terms of gender, 56.2% of applicants identified as men, 30.8% as women and 2.4% as non-binary (used here as an umbrella term for people whose gender identity is not exclusively male or female, including genderqueer, agender and genderfluid identities). Among funded projects, the distribution shifts slightly: 54.0% were led by men, 38.0% by women and 2.0% by non-binary applicants. This is higher than the Innovate UK study and shows a positive shift towards a higher representation of women among funded projects relative to their share of applications. While the differences between applicant and funded proportions are small, the overall distribution of funded projects is broadly consistent with patterns of participation observed in the creative industries, where women remain under-represented relative to the wider workforce.

Across all XR Network+ funding calls, the majority of applicants identified as White (68.1%). Smaller proportions identified as Asian or Asian British (11.2%), Black and Black British (2.4%), or Mixed (3.6%). A further 5.9% of applicants selected 'Prefer not to say', and 8.9% did not respond to the ethnicity question. Relative to workforce participation in the creative industries, White applicants were somewhat under-represented, while applicants from racially minoritised groups were present in proportions that broadly reflect sector-level participation rather than the wider UK population. Using Census 2021 data as a broader reference point, 81.7% of respondents identified as White, compared with 9.3% identifying as Asian or Asian British, 4.0% as Black and Black British, and 2.9% as Mixed (ONS, 2022). Relative to these figures, Black and Black British applicants appear under-represented in XR Network+ funding calls. Among funded projects, 72% were led by White applicants, 10% by Asian and Asian British applicants, none by Black and Black British applicants, and 4% by applicants from Mixed ethnic backgrounds. While the absence of funded projects led by Black and Black British applicants is a concern, the number of applications in this category was very small (n = 4), limiting what can be inferred from these figures.

For sexual orientation, 64.5% of applicants identified as heterosexual and 10.7% as LGBQ+ (lesbian, gay, bisexual, queer+), while 16.6% selected 'Prefer not to say'. Among funded projects, 66% were led by heterosexual applicants, 6% by LGBQ+ applicants, and 24% by applicants who selected 'Prefer not to say'. Existing evidence on the collection of sexual orientation data indicates that non-disclosure is more common for sensitive characteristics and is not randomly distributed across populations. As a result, the proportion of applicants who identify as LGBQ+ is likely to be underestimated when considering disclosed categories alone (Tourangeau & Yan, 2007; Valentine & Wood, 2015).

Disability status also attracted a relatively high proportion of 'Prefer not to say' responses (13.6%). Overall, 14.8% of applicants reported having a disability and 65.1% reported not having a disability. Among funded projects, 14.0% were led by applicants who reported a disability, 74.0% by those who reported no disability, and 8.0% by applicants who selected 'Prefer not to say'. As existing research suggests, non-disclosure is not a neutral category and may reflect concerns about stigma or use of data (Tourangeau & Yan, 2007).

Social class data were collected using a self-identification tool with a wide range of response options. In practice, applicants only selected three categories: working class, first generation middle class, and middle class. 16.6% of applicants identified as working class, 13.0% as first generation middle class and 39.1% as middle class, with 23.1% selecting 'Prefer not to say'. The distribution of funded projects closely matched the distribution of applications: 18.0% working class, 14.0% first generation middle class, 38.0% middle class and 26.0% 'Prefer not to say'.

3. The changes we implemented

Ahead of the XR Labs Fund call, which closed in September 2025, we audited our working practices around funding calls. This involved mapping touchpoints and decision points across the lifecycle of a funding call, from scheme design and advertising through to review and decision-making. In total, nearly 70 points of interaction or decision were identified and considered as part of the audit.

Alongside this audit, we conducted a targeted review of existing research on barriers to participation in research funding, with particular attention to evidence relating to women and disabled applicants, as well as team training in the 'Foundations of Equitable Project Design' which was delivered by Ida XR Studio. The review focused on aspects of funding call design that programme teams can reasonably influence, including how eligibility is communicated, how applications are submitted, and how review processes are organised.

In total, 16 changes across six stages were implemented ahead of the XR Labs Fund call, which are outlined below.

3.1 Encouraging broader participation

At the design stage, the call guidance explicitly stated that the fund aimed to encourage applications from early career researchers and technicians. A dedicated section on EDI was included, setting out the programme's commitments and rationale and encouraging applications from a wide range of backgrounds.

We also added a question in the application form inviting applicants to reflect on how their project considered equitable design. This question was not scored but was available for reviewers to consider as part of their overall assessment.

At the advertising stage, the application window was extended to eight weeks. In the past, the application window ranged from six to eight weeks. The longer window was intended to allow additional time for applicants to arrange support where needed, including booking support workers, and to accommodate interruptions during the application period, such as those related to health. We also introduced greater flexibility in project delivery, with eight-week windows for project start and end dates rather than fixed deadlines.

3.2 Accessibility of documents

At the advertising stage, we audited our documents and ensured that they were accessible. Guidance documents were structured using headings compatible with screen readers, tables were avoided, and the application form was provided as an editable document rather than a PDF.

For the application, we used Google Forms, which is accessible for screen readers and allows progress to be saved. Applicants were also able to download our application form as a Word document to complete in their own time and save their progress on their own devices.

To increase transparency, an infographic outlining the pre- and post-award process was included in the guidance. As mentioned above, 'Equitable Opportunity' section in the guidance encouraged applications from first-time applicants.

We added the option to request a video application submission in the call guidance document, and the option to discuss any other adjustments with us by getting in touch via email, but no request for video applications was received. Additionally, application support, offered via one-to-one calls, was made available to all applicants, several of whom took up this offer.

3.3 Review process

At the review stage, the reviewer pool was refreshed by removing individuals who had not engaged reliably in previous rounds and we recruited additional reviewers, including those with freelance backgrounds, as well as increasing representation from Northern Ireland to ensure UK-wide coverage.

Reviewers were provided with structured guidance, including written materials on unconscious bias, a briefing document outlining programme values and review expectations, and a video explaining the review process and what constituted a strong application. Reviewers were paid both for engaging with the training materials and for reviewing applications, with a standard rate per application. This was intended to make participation in the review process more equitable for those unable to contribute unpaid time.

3.4 Decision-making process

At the funding recommendation stage, an EDI observer from the University of York was present at the shortlisting meeting. The observer's role was to monitor decision-making discussions and intervene where potential bias required attention. While this role had previously been used in interview settings within the University, this was its first application to a funding decision meeting.

At the outcome stage, reviewer comments across all applications were edited so they had the appropriate content, tone and format for the applicant to read. While no concerns were raised about the content of feedback, some applicants queried how positive reviewer comments aligned with funding decisions, suggesting a need for clearer alignment between scoring, feedback and outcomes. We are currently compiling and anonymising reviewer feedback to identify common themes and develop guidance for future applicants. This will be shared publicly ahead of our next funding call, so everyone can benefit.

4. Impact of changes on applications process

The XR Labs Fund attracted the largest number of applications across all funding calls, accounting for over one third of the total applications received. This increase may partly reflect the longer application window, which was extended to eight weeks. While this appears to have lowered barriers to applying, it also increased the volume of applications that the team and reviewers were required to assess, with reviewers undertaking more reviews than initially anticipated.

In the sections that follow, we examine distributions in application and applicant characteristics that are commonly associated with lower application or lower success rates in research funding. The analysis is organised by characteristic and is interpreted in light of both existing evidence on barriers to funding and the specific design features of the funding calls.

4.1 Age

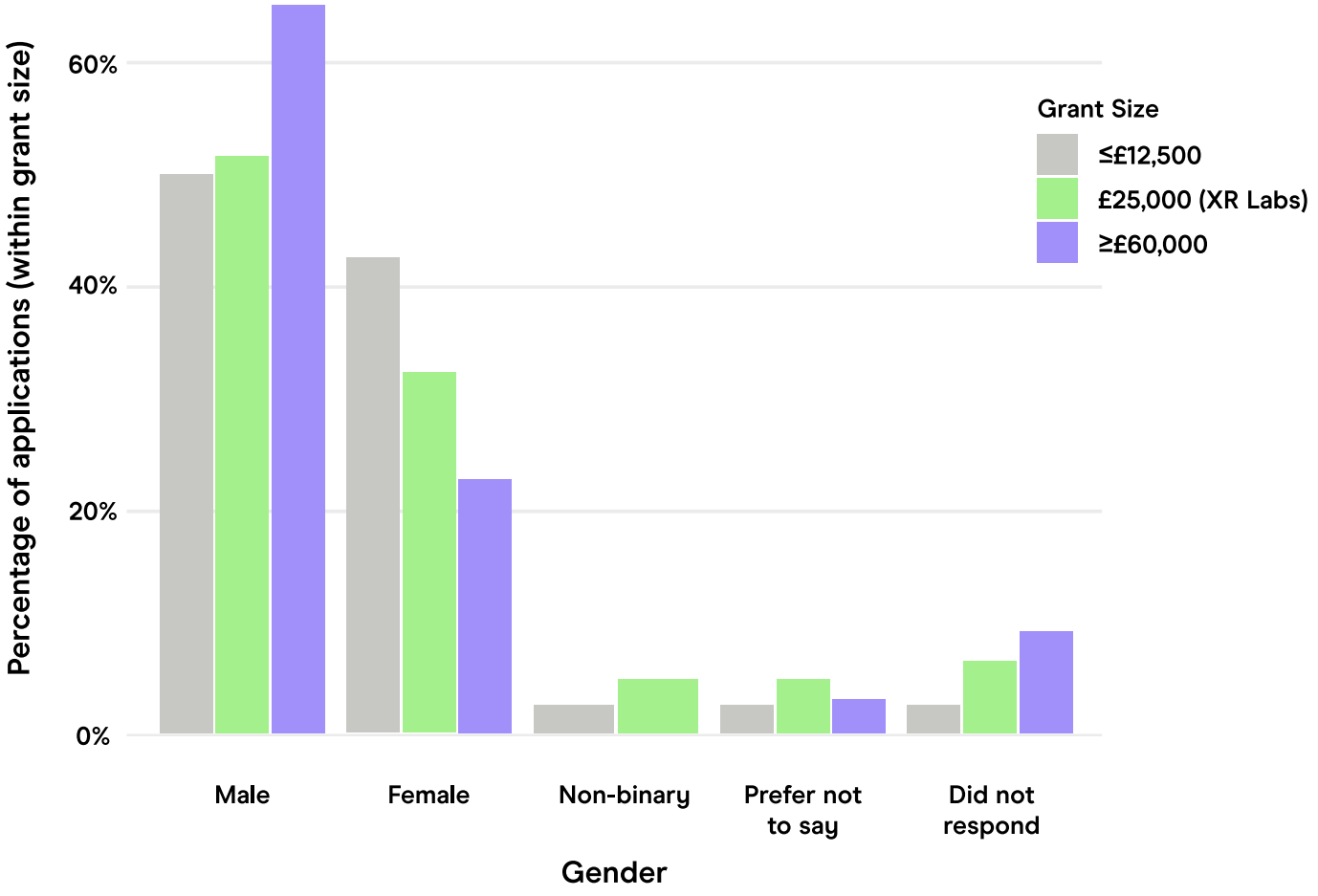
Previous research suggests that access to research funding varies by career stage, with early career researchers often facing barriers related to limited track records, lower familiarity with funding processes, and uneven access to institutional support, particularly for larger or more administratively complex schemes (Jebsen et al., 2020; Schneider et al., 2024). At the same time, funding opportunities that are narrowly pitched at early career researchers can limit applications from more established researchers or those with non-linear career trajectories. As a result, the funding landscape is often characterised by uneven access across career stages rather than a single group being consistently advantaged. A recent systematic review applying Social Identity Theory also highlights that younger adults can face credibility discounting in academic and professional settings, including barriers in research funding contexts: younger applicants were often positioned as technically capable while being treated as less credible or "ready", with disadvantages appearing strongest when decision-makers were substantially older or more senior (Hulus & Michaelidou, 2025).

Across XR Network+ funding calls, eligibility criteria and expectations varied, resulting in opportunities that were more or less accessible to applicants at different career stages. Some calls were open to research staff with established academic–industry collaborations, while others explicitly encouraged applications from early career researchers, technicians or first-time applicants. In the case of the XR Labs Fund, the guidance encouraged applications from early career and first-time applicants and highlighted the availability of application support, although this support was not restricted to any particular career stage.

Figure 2 shows the age distribution of applicants across all funding calls. Age is used here as a proxy for career stage, recognising that career trajectories in both academia and the creative industries are often non-linear. Compared to earlier calls, XR Labs saw an increase in applications from applicants aged 30–39, rising by 8.2 percentage points from 23.6% to 31.8%, alongside a decrease in applications from those aged 40–49 (from 34.9% to 30.2%). Applications from those aged 29 or under also increased slightly, although this change was small, rising by 0.7 percentage points from 5.7% to 6.4% of applications.

Grant size appears to also be associated with age-related patterns in who applies. For funding calls offering £60,000 or more, only 1.5% of applications were submitted by applicants aged 29 or under, compared to 12.5% for calls offering £12,500 or less. The XR Labs Fund, which offered awards of £25,000, sat between these two, with 6.3% of applications coming from applicants aged 29 or under. This distribution is consistent with the fact that larger grants typically require more established industry partnerships and may therefore be more appropriate for later-stage researchers. However, it also suggests that higher-value funding may be less accessible to younger applicants. Notably, although the XR Labs call explicitly encouraged applications from early career researchers and first-time applicants, it did not attract more applications from the youngest age group. That said, XR Labs received a higher proportion of applications from applicants aged 30–39 than any other call, regardless of size (see Figure 3). Despite these differences, the median age band across all grant sizes was 40–49, indicating that observed variations are caused by small margins, rather than reflecting a substantial change in the overall age distribution of applications.

Fig 3 Applicant gender by grant size



These patterns suggest that age-related access to XR Network+ funding varied across calls in ways that reflect both differences in call design and broader structural constraints associated with career stage. While the portfolio as a whole did not target a single age group, neither did design features intended to encourage early career applications fully offset the lower representation of the youngest applicants in larger funding calls. Indeed, the size of the calls seemed to have the greatest impact within this age group. This reinforces the value of maintaining a mixed funding offer, while also highlighting age and career stage as areas where further refinement of call design and targeted support may be warranted.

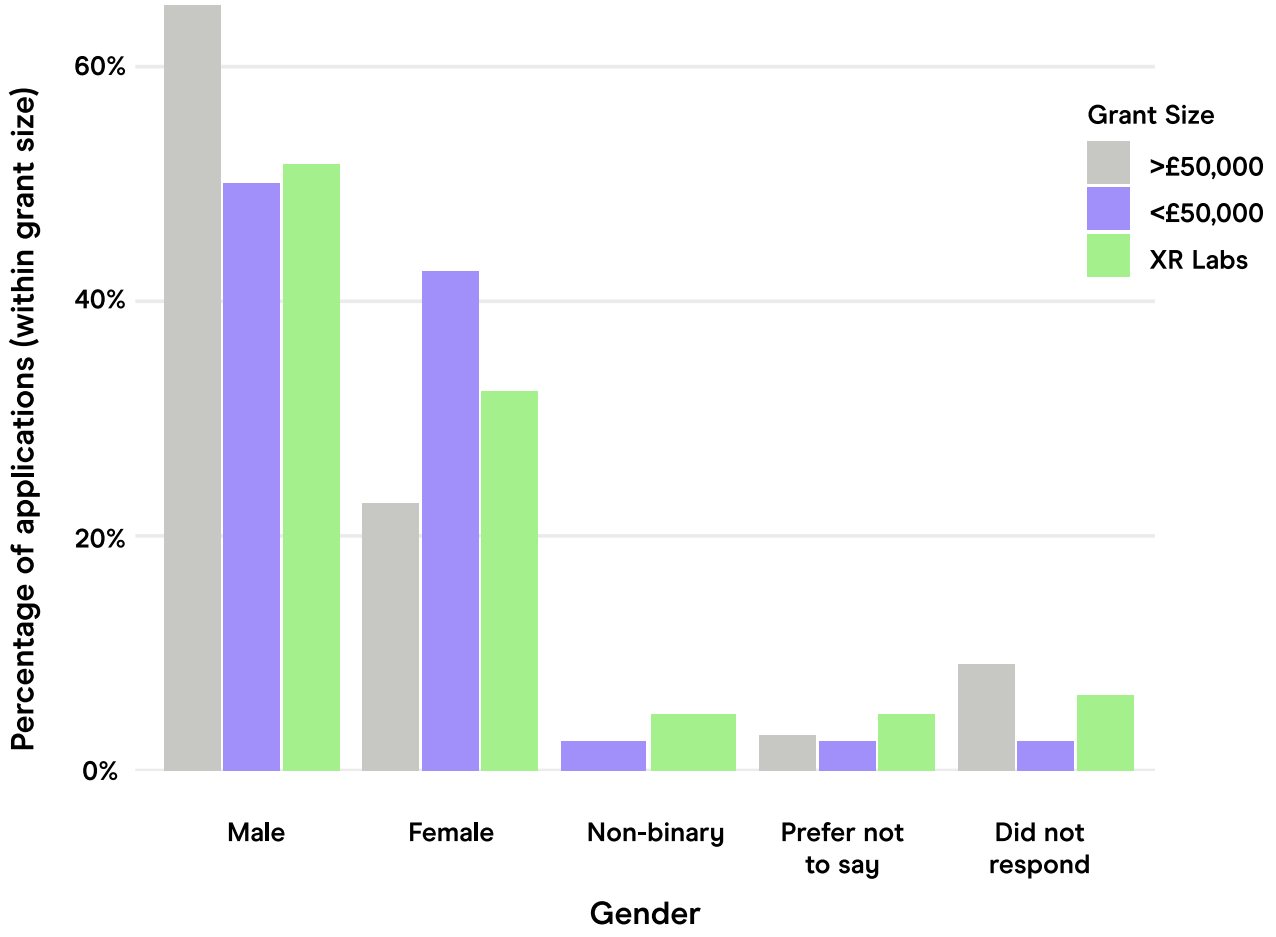
4.2 Gender

Previous research indicates that gender continues to shape access to research funding. In UK academia, women receive a disproportionately small share of competitive grants, and when funded, tend to receive smaller awards on average (Prince & Francis, 2023). Evidence from the immersive and virtual production sector reflects similar patterns. A survey conducted by IDA XR Studio et al. (2024) found that gender was the most commonly reported basis for discrimination, with 31.7% of respondents stating that they had experienced discrimination for this reason. Other studies suggest that women are less likely to apply for larger funding schemes, with discouragement from line managers or senior colleagues identified as one contributing factor (Jebsen et al., 2020; Schneider et al., 2024).

Comparing the first six funding calls with the XR Labs Fund, the proportion of male applicants decreased from 59.4% to 50.8%, while the proportion of women applicants increased slightly by 1.6 percentage points from 30.2% to 31.8%, while the proportion of non-binary applicants increased by 3.8 percentage points from 1.0% to 4.8%. At the same time, the proportion of applicants selecting 'Prefer not to say' or not responding also increased. While these changes are small and should be interpreted cautiously, they suggest modest changes in the composition of the applicant pool.

Distributions by grant size align with findings from the existing literature, with women less represented among applicants to higher-value funding schemes. Across XR Network+ calls offering £60,000 or more, women accounted for 22.7% of applicants, compared to 42.5% for calls offering £12,500 or less. For the XR Labs Fund, which offered awards of £25,000, women represented 31.7% of applicants, placing this call between the smallest and largest grants in terms of gender distribution. While differences in eligibility criteria, expectations and application complexity make it difficult to isolate the effect of grant size alone, these distributions are consistent with evidence that women are less likely to apply for larger or more prestigious funding schemes. Existing research suggests this reflects, in part, wider structural factors, including gendered career progression and the under-representation of women in senior academic and leadership roles, as well as differences in encouragement, sponsorship and access to institutional support. At the same time, higher-value grants typically carry additional expectations around leadership, institutional endorsement and administrative complexity, which may further shape who feels able to apply, raising questions about how such calls are framed, communicated and supported (Jebsen et al., 2020; Gladstone et al., 2022).

fig 4. Applicant gender by grant size



Reflecting on the applications received across XR Network+ calls, this suggests that increasing the number of women applicants to higher-value funding calls is an area where further work is needed. While XR Network+ cannot address structural inequalities in isolation, there is scope to examine whether aspects of call design, eligibility framing or application support could be adjusted to reduce barriers for women considering larger grants. Potential avenues include clearer signalling of eligibility across career stages, increased transparency around expectations, and targeted encouragement or support mechanisms for applicants who may otherwise self-select out of larger schemes. In addition, the timing of funding calls may warrant closer attention. Application deadlines that fall during school holidays or peak caring periods may disproportionately affect applicants with caring responsibilities, which continue to be unevenly distributed by gender (Gladstone et al., 2022).

In this sense, the observed gender gap in applications to higher-value grants should not be treated as inevitable. Rather, it highlights a point at which programme-level interventions may play a role in widening participation, and where future iterations of funding calls could be used to test whether changes in design or support affect who feels able to apply.

4.3 Ethnicity

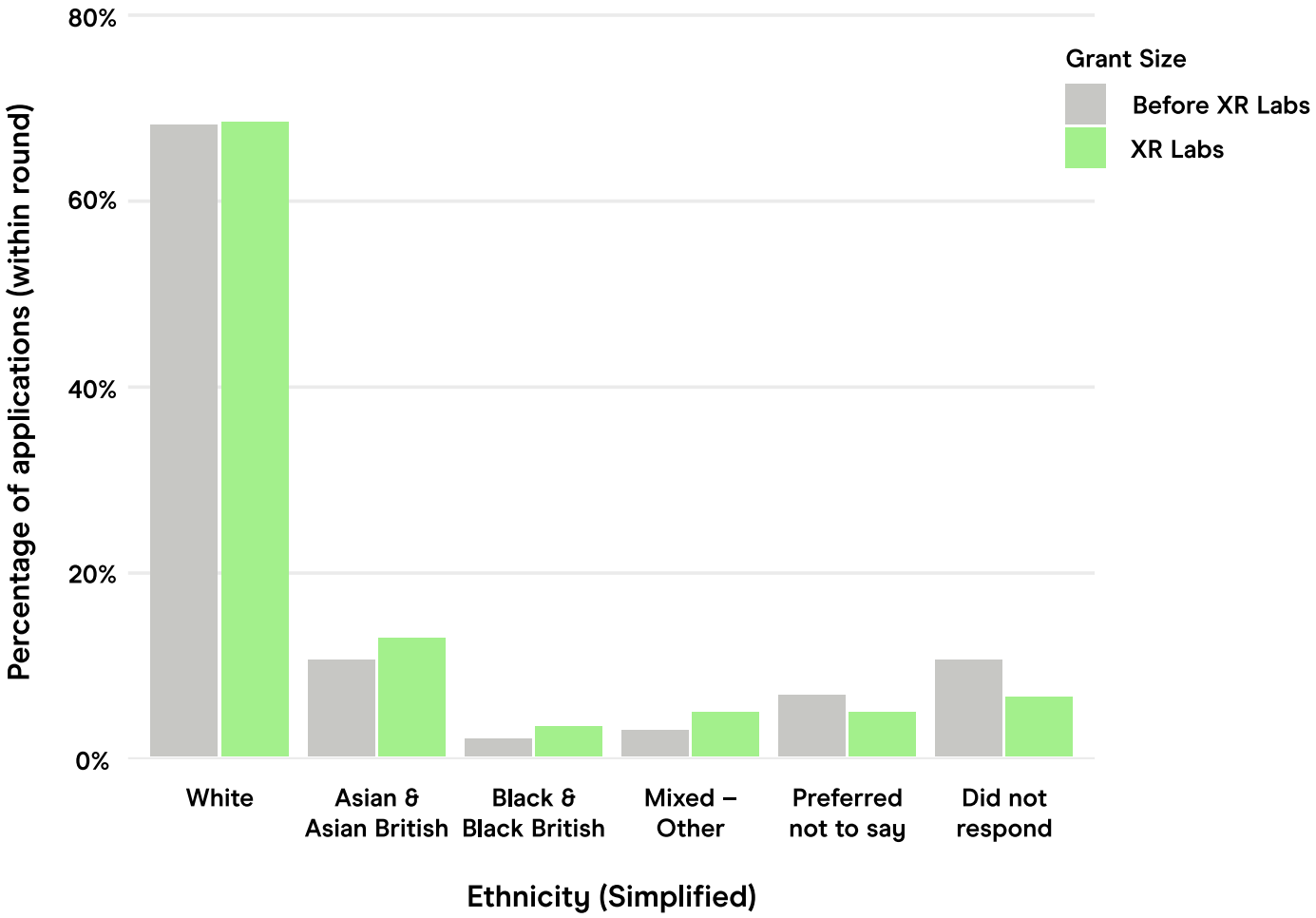
Research consistently shows that the creative industries are not racially representative of the UK population, with people from racially minoritised backgrounds under-represented across the sector and facing barriers to entry, progression and access to resources (Carey et al., 2024). Similar patterns have been documented in research funding, where applicants from racially minoritised groups are less likely to apply for, and to receive, competitive funding, particularly for larger or more prestigious schemes (Prince & Francis, 2023). These inequalities form part of the wider context in which XR Network+ funding calls operate.

Work in the health research funding context has identified multi-level barriers affecting racially and ethnically minoritised investigators' competitiveness for major funding. Reported barriers include inadequate access to research infrastructure and development opportunities, limited mentoring, institutional support gaps, misperceptions and miscommunication about work with minoritised communities, and perceived institutional bias in funding policies (Shavers et al., 2005). Furthermore, UK evidence on progression into doctoral study suggests that students from underrepresented and marginalised communities are disproportionately negatively impacted (Lindner, 2020). Financial security, levels of awareness of career prospects and the overall research environment, as well as feelings of institutional inclusion have all been identified as factors in successful participation in doctoral education, which are more likely to be absent with ethnically minoritised students (Lindner, 2020; Williams et al., 2019).

Comparing applications submitted before and after the funding call changes were implemented, the proportion of applications from those identifying as Asian and Asian British increased by 2.3 percentage points (from 10.4% to 12.7%) and those from Black and Black British increased by 1.3 percentage points (from 1.9% to 3.2%). There was also a reduction in non-disclosure, with 'Prefer not to say' responses falling by 1.8 percentage points and non-response decreasing by 4.0 percentage points. Taken together, these changes represent a modest but welcome change. In particular, the proportion of Black and Black British applicants moved closer to sector-level representation in the creative industries (3.2% of applicants compared to 2.8% of the overall creative industries workforce), although this group still remains under-represented relative to the UK population as a whole (4.0%).

The number of applicants in some ethnic groups remains small, which limits the conclusions that can be drawn from these changes. Nonetheless, the observed increase in applications from racially minoritised groups, alongside a reduction in non-disclosure, suggests a slight positive change in the composition of the applicant pool for the XR Labs Fund compared to earlier calls. As with other characteristics, these patterns should be interpreted cautiously and understood as reflecting the combined effects of call design, sector context and disclosure practices rather than the impact of any single intervention.

Fig 5. Applicant ethnicity before and after XR Labs

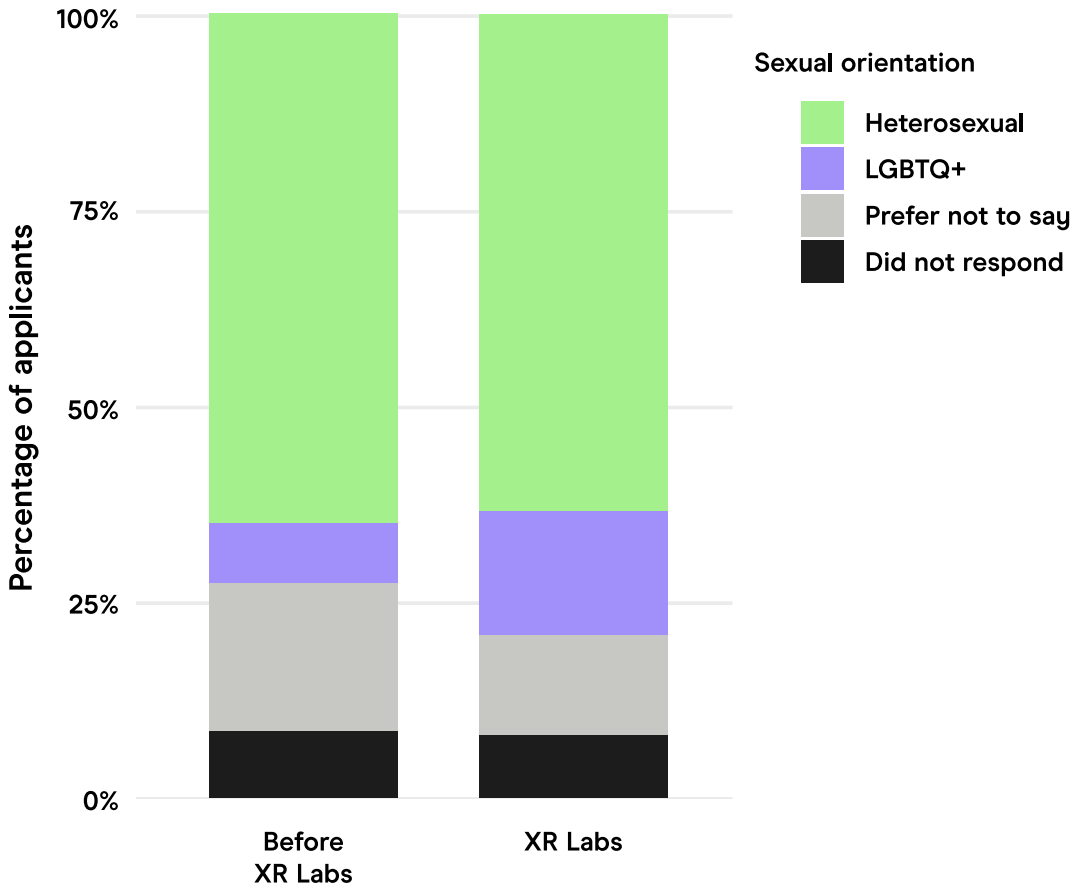


4.4 Sexual orientation

Research on equality monitoring consistently shows that sexual orientation is a sensitive characteristic in survey and administrative contexts, with higher levels of non-disclosure than for many other characteristics. Non-response is more common where respondents perceive disclosure as carrying potential risk or where trust in how data will be used is uncertain (Tourangeau & Yan, 2007). UK higher education evidence also shows that people may avoid disclosing sexual orientation or trans status where there is concern about consequences for opportunity and progression (Sotiropoulou, 2022). This literature links non-disclosure to trust, perceived confidentiality, and clarity about why the data are being collected and how they will be stored and used. It also notes that weak data collection practices can make it harder to identify inequities and evaluate targeted interventions, reinforcing the importance of transparent data use statements when monitoring is voluntary (Valentine & Wood, 2015).

Across XR Network+ funding calls, there was an increase in the proportion of applicants who identified as LGBQ+ between the first six funding rounds and the XR Labs Fund, rising from 7.6% to 15.9%, an increase of 8.3 percentage points. Part of this change reflects a reduction in the proportion of applicants identifying as heterosexual, which fell by 1.6 percentage points from 65.1% to 63.5%. A further component reflects a decrease in non-disclosure, with 'Prefer not to say' responses falling from 18.9% to 12.7%, a reduction of 6.2 percentage points. Existing evidence suggests that non-disclosure on sexual orientation questions can contribute to the underestimation of sexual minority populations in monitoring data. From this perspective, the observed reduction in non-disclosure alongside an increase in disclosed LGBQ+ identities, while the proportion of heterosexual applicants did not fall as sharply, may indicate greater confidence in providing this information within the XR Labs application process, rather than a change in the underlying composition of the applicant pool.

fig 6. Sexual orientation of applicants before and after XR Labs



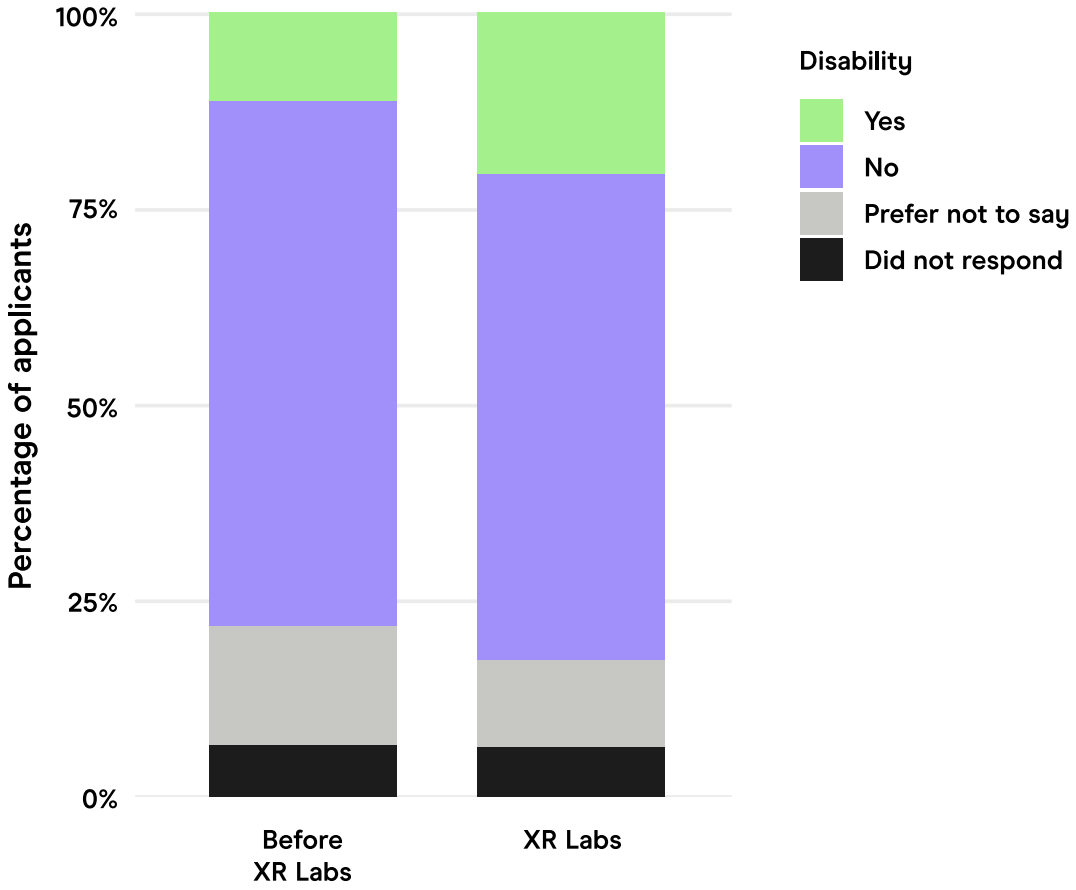
4.5 Disability

Disabled people are under-represented in both academia and the creative industries, and face well-documented barriers to participation in research and innovation, including inaccessible processes, inflexible timelines, concerns about disclosure in evaluative contexts, and more broadly attitudinal barriers, inadequate provision of reasonable adjustments, and excessive workload (Gladstone et al., 2022; Levitt et al., 2024). For example, 1–3% of applicants to research councils declared a disability compared with HESA data of around 6.3% of academics being disabled (HESA, 2024). Additionally, research into NIH grant applications found that there has been a statistically significant decline in applications with principal investigators reporting a disability between 2008 and 2009, from 1.9% to 1.2% (Swenor et al., 2020). In the creative industries, an estimated 13.3% of filled jobs were held by disabled people in 2021 (DCMS, 2024). Evidence across research funding and doctoral education highlights that disabled applicants can face informational barriers and process barriers, including inaccessible documents and forms, unclear or contradictory guidance, and complex procedures that increase effort costs, supporting the idea that it is important to treat accessibility and clarity as core design issues (Sotiropoulou, 2022).

Across all XR Network+ funding calls, 14.8% of applicants reported having a disability, a proportion slightly above sector-level participation (in the creative industries), and much above HESA's estimates. Looking at applications submitted before and after the XR Labs Fund changes were implemented, the proportion of applicants who reported having a disability increased from 11.3% to 20.6%, an increase of 9.3 percentage points. Over the same period, the proportion of applicants reporting no disability decreased, from 67.0% to 61.9%, while the proportion selecting 'Prefer not to say' fell from 15.1% to 11.1%. Interestingly, the grant size did not seem to have a large effect on the percentage of applicants who had a disability: in the calls before XR Labs, 12.5% reported having a disability for the smaller calls (£12,500 or less), compared to 10.1% for the larger calls (£60,000 or more). However, there does seem to be a larger proportion of non-disclosure ('Prefer not to say') for larger calls (16.7%) compared to smaller calls (12.5%), but this change seems to be offset by the larger number of people declaring no disability for the calls that were £12,500 or less (72.5%).

Although changes in reported disability status are driven by small numbers, the reduction in non-disclosure is notable. The number of applicants selecting 'Prefer not to say' fell from 16 to 7 applications, while the change in the percentage of applicants reporting a disability is driven by just one applicant. As with other sensitive characteristics, disclosure of disability status is shaped by trust in how information will be used and by perceptions of potential disadvantage. As the proportion reporting no disability did not decline to the same extent as the proportion reporting a disability increased, the observed rise in disability disclosure appears to be driven primarily by reduced non-disclosure, suggesting greater confidence in the application process rather than a substantive shift in the underlying composition of the applicant pool.

fig 7. Disability disclosure before and after XR Labs



4.6 Social class

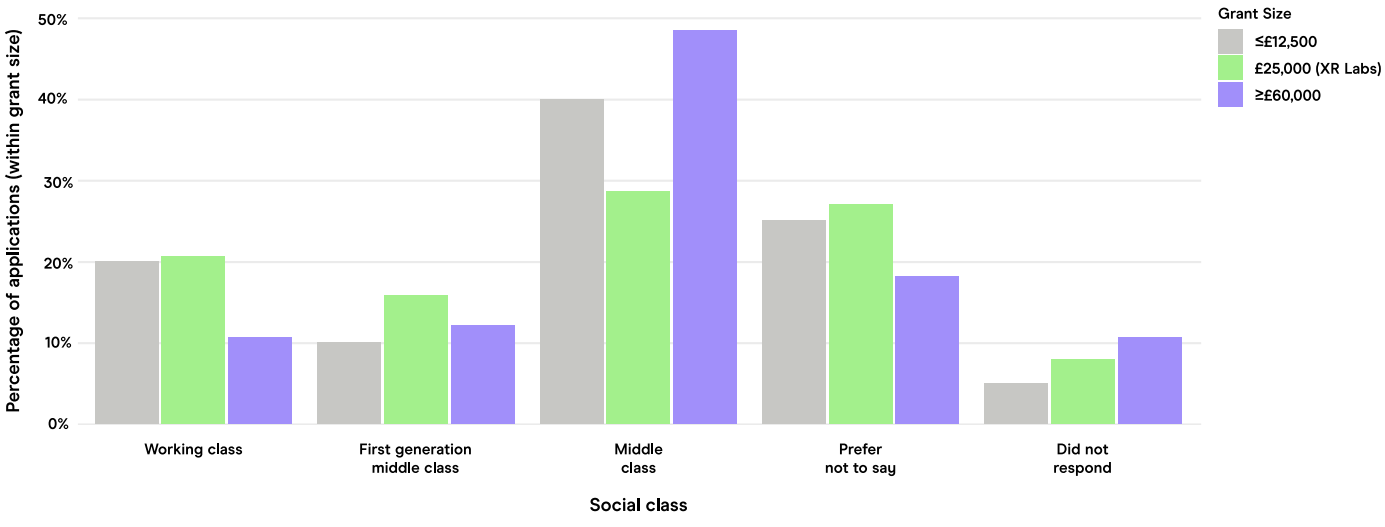
Compared to other protected characteristics, there is relatively little research on socio-economic background and access to research funding. Existing evidence nonetheless suggests that people from lower socio-economic backgrounds face persistent barriers, including reduced access to social and cultural capital, fewer informal networks, and limited exposure to funding norms and expectations (Carey et al., 2021; Wanelik et al., 2020). In the creative industries, senior and leadership roles are disproportionately occupied by individuals from privileged class backgrounds (Carey et al., 2021, 2024), which can constrain access to investor networks and funding opportunities for working-class practitioners. In academia, disadvantages begin even at the postgraduate level, where graduates from less privileged backgrounds are less likely to progress in postgraduate studies when compared to their better-off counterparts (Wakeling & Mateos-González, 2021). Furthermore, UK evidence on progression into postgraduate research suggests that socio-economic background can shape participation through financial concerns and risk exposure. This includes the adequacy of doctoral funding relative to living costs, the deterrent effect of accumulated debt, and a greater sensitivity to uncertain career prospects post-PhD (Sotiropoulou, 2022). The same evidence suggests that applicants from less privileged backgrounds may be disadvantaged by prior institution effects (for example, unequal access to research-intensive institutions), by reduced access to informal guidance on how to navigate applications and funding norms, and by cultural expectations embedded within funding discourse, including discomfort with self-promotional or self-aggrandising forms of presentation (Arbuckle et al., 2025; Sotiropoulou, 2022).

Comparing applications submitted before and after the XR Labs Fund changes were implemented, the proportion of applicants identifying as working class increased from 14.2% to 20.6%, a rise of 6.4 percentage points. The proportion identifying as first generation middle class also increased, from 11.3% to 15.9% (4.6 percentage points), while the proportion of applicants identifying as middle class decreased from 45.3% to 28.6%. In contrast to patterns observed for some other characteristics, the proportion of applicants selecting ‘Prefer not to say’ increased from 20.8% to 27.0%.

Grant size appears to be particularly salient for social class. For funding calls offering £60,000 or more, only 10.6% of applications were submitted by applicants identifying as working class, compared to 20.0% for calls offering £12,500 or less and 20.6% for the XR Labs Fund. Larger funding calls also received a higher proportion of applications from middle class applicants (48.5%) than smaller calls (40%). This is in line with some experiences from academics who described being uncomfortable and nervous dealing with large sums of money after ‘a lifetime of carefully considering small amounts to spend’ (Arbuckle et al., 2025, p. 272).

As such, these patterns suggest that both disclosure and participation by social class are sensitive to grant size. However, given the heterogeneity of funding calls and the high level of non-disclosure, it is difficult to determine whether changes observed for XR Labs reflect the effects of call design, grant size, or broader structural factors. Nonetheless, the consistently lower proportion of working-class applicants to higher-value funding calls indicates a clear area for improvement. For example, a researcher from a low socioeconomic status reflected that the wording of some grants (‘ground-breaking, discipline-shifting’ and the use of mountaineering metaphors) could be alienating (Arbuckle et al., 2025). Increasing the number of applicants from lower socio-economic backgrounds to larger grants represents an important challenge for future funding rounds and highlights the need to consider how eligibility criteria, expectations, application support and perceived risk may differentially shape who feels able to apply.

fig 8. Applicant social class by grant size



5. Impact on reviews

Existing evidence relevant to research funding and research careers suggests that reviewer decisions can be shaped by differences in access to mentoring, informal norms, and institutional support, and that "fairness" can be undermined if review criteria rely heavily on signals that are themselves unevenly distributed (such as prestige cues or track-record opportunities). While there did not appear to be bias in the reviews at any stage, as the proportion of funded projects broadly matched the proportion of applications across all characteristics, it is still important to reduce bias as much as possible in the review stage. The literature supports treating structured review guidance, transparency about what constitutes a strong application, and attention to decision-making discussions as plausible safeguards where applicant pools are heterogeneous (Shavers et al., 2005; Sotiropoulou, 2022). By recruiting a wider range of reviewing, including those with freelance backgrounds and from a wider geographic distribution, we already made steps to make our reviewer pool more heterogeneous.

The reviewers were provided with a guidance document and a short video which included sections on diversity and inclusion and on how to mitigate unconscious bias. The advice encouraged reviewers to consciously reflect on their thoughts and monitor for unconscious bias, deliberately slow down their decision-making, to be consistent and to include reasons to fund alongside reasons to reject. While reviewers were not asked to record the time spent on each assessment, reviews were remunerated at a flat rate, based on an estimated 45 minutes per application, to support careful and considered assessment.

There is some limited evidence that the changes may have had an impact on reviewer consistency. Across all calls, each application was assessed independently by two reviewers. Comparing the differential between the second round of the PIA and Embedded R&D calls (June 2024) and the XR Labs Fund (September 2025), smaller average and median differences between reviewer scores are observed for XR Labs, alongside a narrower range. The mean differential for PIA and Embedded was 3.61, with a median of 3 and a range of 14, compared to XR Labs (mean = 3.30, median = 2, range = 12). However, another plausible explanation for reviewer consistency is workload concentration. The larger volume of XR Labs applications meant that a small number of reviewers assessed many more proposals than others, with five reviewers collectively producing 38% of all reviews. It should also be noted that XR Labs applications were scored out of 25, compared to 20 for the earlier calls, meaning that proportional differences are more pronounced than the absolute differentials alone suggest.

While not included in the scoring criteria, there is evidence that the reviewers took into account equality, diversity and inclusion of the project. Five reviewers commented on the EDI dimension of the project, either to comment that it was lacking or insufficient, or to commend the way EDI had been considered for the project.

The unconscious bias observer present at the shortlisting meeting was perceived to be useful. Their presence helped to slow down decision-making and they contributed occasional prompts when the highest-scoring projects were discussed across multiple criteria. It was the first time a trained unconscious bias observer had attended a funding shortlisting meeting in our project, and it is not known whether this practice has been used elsewhere in the University. Ahead of the meeting, the observer was briefed to attend in particular to the language used in reviewer comments, the potential influence of panel members' prior knowledge of applicants or projects, and the use of judgement in criteria such as feasibility that rely on collective interpretation rather than external scores. They were also asked to be alert to how borderline applications were discussed, particularly where wider portfolio considerations were being weighed. Overall, the observer's role was to support reflexivity at points where consistency and impartiality may be harder to sustain.

6. Summary

This report examined how changes to funding call design were implemented within XR Network+ and what can reasonably be learned from them. Drawing on monitoring data, application outcomes and review processes across seven heterogeneous funding calls, the analysis focused on aspects of design that programme teams can directly influence, while recognising the wider structural conditions shaping participation in research and innovation.

Several consistent patterns emerge. First, who applies is more sensitive to call design than who is funded. Across most characteristics, funded projects broadly mirrored the composition of the applicant pool, suggesting no clear evidence of systematic disadvantage at the review stage. Differences in participation were instead more visible at the point of application, reinforcing the importance of treating eligibility framing, application burden and perceived risk as primary levers for inclusion.

Second, grant size interacts with access in predictable but uneven ways. Larger awards were associated with lower numbers of applications from younger applicants, women and applicants from working-class backgrounds. These patterns align with existing evidence on confidence, sponsorship and administrative burden, and were only partially mitigated by design features intended to widen access. The XR Labs Fund, which sat between smaller and larger schemes in terms of award size, tended to sit between them in application patterns as well, suggesting that the changes implemented did not sufficiently mitigate other factors such as grant size.

Third, reductions in non-disclosure appear to be meaningful. For several sensitive characteristics, including disability, sexual orientation and ethnicity, the XR Labs Fund was associated with lower rates of 'Prefer not to say' responses. Given existing evidence that non-disclosure reflects trust and perceived risk, these changes are plausibly linked to increased transparency in the application and award process, and more explicit signalling around inclusion. While small numbers limit interpretation, reductions in non-disclosure are themselves a relevant outcome of funding design.

A challenge in analysing the data is that several changes were implemented: extended application windows, accessible documentation, visible EDI commitments, application support, reviewer guidance, paid reviewing and the presence of an EDI observer each address different points in the funding process, so no single change can be linked to a specific outcome. Nonetheless, the increase in proportion of applicants from women and non-binary applicants, racially minoritised groups, LGBQ+ applicants, disabled applicants and applicants from working-class backgrounds in varying degrees suggests that inclusive practice operates cumulatively.

Finally, programme-level interventions have clear limits. The heterogeneity of calls, small numbers in some categories, and wider academic and creative industry structures mean that changes observed here should not be read as causal effects. Persistent under-representation of some groups, particularly in higher-value funding, reflects structural inequalities that cannot be resolved through call design alone. However, this does not negate the value of interventions at programme level, but rather it is important to keep in mind what changes can be implemented by grant-awarding teams.

Importantly, no evidence was found that the changes implemented for the XR Labs Fund were associated with adverse effects in applications across any of the characteristics examined. In summary, the findings indicate small but positive shifts in application and disclosure patterns, while underlining the need for continued caution in attributing these changes to any single intervention.

In conclusion, the findings suggest three priorities for future funding rounds. First, to continue treating application-stage design as the primary site of intervention, particularly for higher-value grants. Second, to explicitly address perceived risk and eligibility signalling for applicants who are structurally less likely to apply to larger schemes, including women and those from lower socio-economic backgrounds. Third, to embed transparency and reflexivity not only in monitoring data, but throughout review and decision-making processes.

7. Next steps

This review represents an initial step in understanding how funding call design and review processes shape who applies for and engages with XR Network+ funding opportunities. Ongoing monitoring data and iterative analysis will be essential to developing a more robust evidence base and to refining future interventions. Larger numbers of applications will allow for more confident interpretation of patterns observed here and will support more granular analysis. At present, data sparsity limits the extent to which intersectional patterns can be examined, and further disaggregation, for example by individual funding call or by funded versus unfunded applications before and after changes, is not analytically viable. These constraints reinforce the need for a cumulative approach to evaluation rather than one-off assessments.

Future work will therefore focus on continuing to test research-informed changes to funding call design and review processes, while tracking how these changes affect application rates and disclosure across different characteristics. Particular attention will be paid to recurring pressure points identified in this report, including grant size, disclosure practices and application timelines. We will also engage with other organisations responsible for distributing funding to share learning and develop sector-level good practice. Additionally, XR Stories is undertaking related activity aimed at strengthening inclusive practice across its wider ecosystem. This includes ongoing work to review and develop internal team culture, processes and ways of working, continued involvement in the Valuing Voices programme and work with Ida XR Studio.

Looking ahead, findings from this review will feed into the development of an EDI framework to guide decision-making and intervention across XR Network+ programmes. This framework will be designed as a practical tool, intended to support iterative, responsive and accountable approaches to equity, diversity and inclusion rather than fixed targets or static benchmarks.

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