



Reporting on the Equality, Diversity and Inclusion (EDI) within the Connected Everything Network

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The Connected Everything Approach to EDI

- While research aimed at advancing equality, diversity, and inclusion within academia is increasing, a gap exists between the research and practices to achieve change.
- In 2020, Connected Everything published its EDI principal document to help Connected Everything become fully representative of the digital manufacturing community it serves¹. This included the Connected Everything Principle:

“Connected Everything knows that diverse teams deliver high quality research outcomes. Furthermore, Equality, Diversity and Inclusion approaches lead to happy and healthy research teams. Connected Everything wants to encourage, support and respect ideas from everyone and ensure our inclusive activities are representative of our network’s community.”



Figure 1 Connected Everything's Equality, Diversity and Inclusion Goals¹

How diverse are Connected Everything activities?

- Equality, diversity and include monitoring data was voluntary collected from participants/ applicants after they had engaged in networks activities and held anonymously.
- Data requests asked about the diversity of our members, specifically for details Gender, Age, Ethnicity, Disability and Caring Responsibilities.
- We have used publically available diversity data that describes the UK wider population and science, engineering and technology academic community to benchmark the Connected Everything data against.

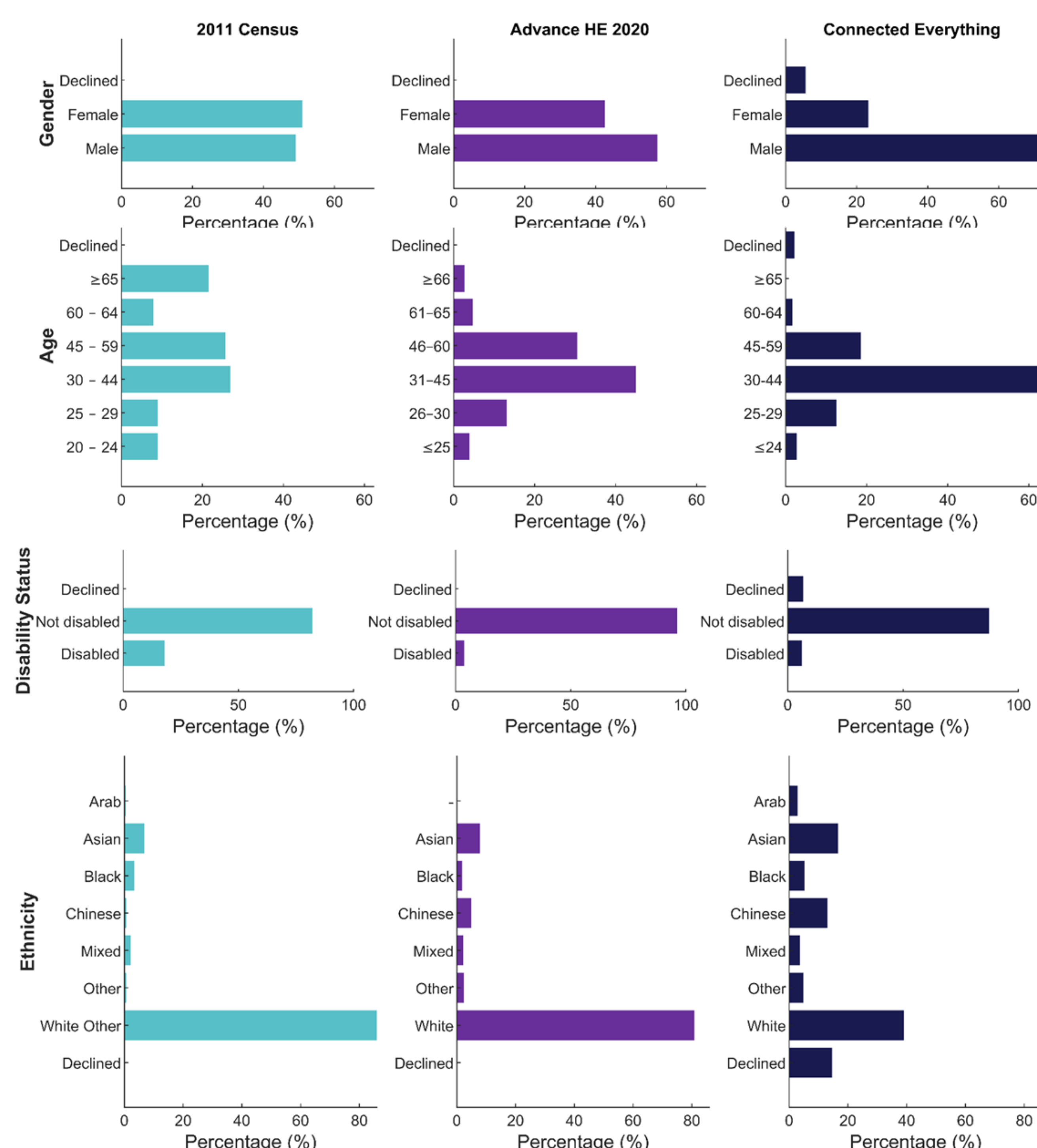


Figure 2 Data describing the diversity of three groups (1) UK population (2011 census²), (2) science, engineering and technology academic community (HE Advance³) and (3) Connected Everything

How is Connected Everything funding awarded?

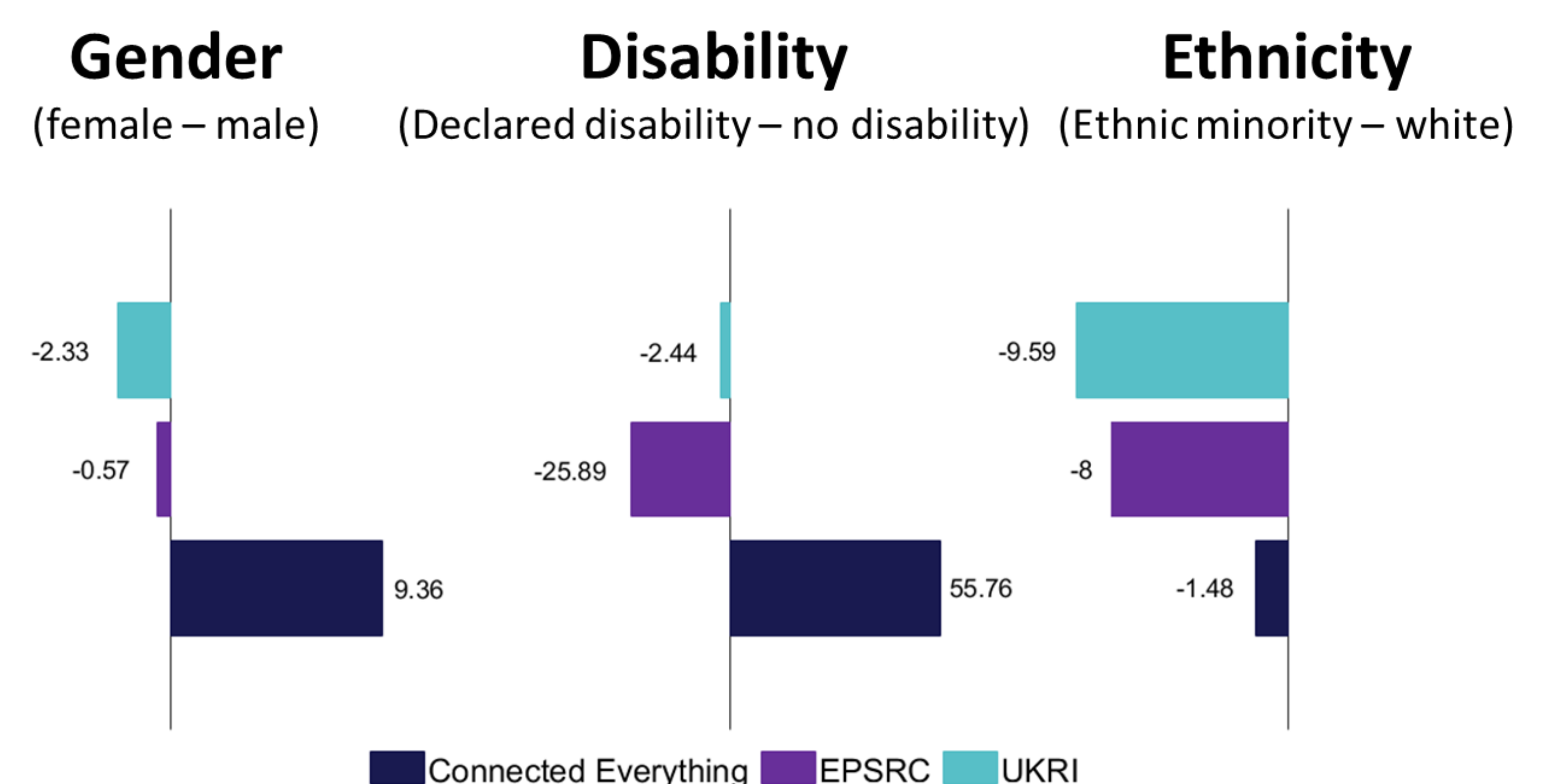


Figure 3 Differences in award rate percentage points by funding provider for gender, disability status and ethnicity⁴

- Unlike other funding bodies, Connected Everything has an anonymous process for submitting funding proposals and individual applicants will remain anonymous up to the panel pitch stage of the assessment process.
- Figure 3 plots the percentage point (pp) difference between the award rates of PIs who are female, those for declaring a disability and ethnic minority applicants and their counterparts respectively. Bars to the right of the axis mean that the award rate of the female/disabled/ethnic minority applicants is greater than that of male/non-disabled/white applicants.

Main conclusions/reflections

- Connected Everything has an underrepresentation of women engaging in network activates (23.3%), although women are more successful than their male counterparts at winning Connected Everything funding.
- There are a larger number younger academics engaging in the network activities, illustrating Connected Everything targeted support for ECRs.
- People who identify as having a disability are underrepresented within the academic community (3.8%) and this is reflected in the Connected Everything network (6.1%), yet are again more likely to acquire Connected Everything funding.
- The Chi-Squared Test of Independence confirms that Connected Everything participants are more ethnicity diverse than the UK population and academic community. Also, ethnic minority academics are more successful at winning Connected Everything funding than EPSRC or UKRI funding.

References

- <https://connectedeverythingmedia.files.wordpress.com/2021/01/ceediprinciplejan2021.pdf> (accessed April 4, 2022).
- Statistical report, 2021. <https://www.advance-he.ac.uk/knowledge-hub/equality-higher-education-statistical-report-2021> (accessed April 26, 2022).
- 2011 Census data. [ons.gov.uk/census/2011census](https://www.ons.gov.uk/census/2011census) (accessed April 25, 2022).
- EDI funding data 2021 <https://public.tableau.com/app/profile/uk.research.and.innovation.ukri/viz/EDIfundingdata2021/Awardrate> (accessed April 26, 2022).

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