

# Follow Up Written Evidence Submitted by LGBTQ+ STEM (DIV0110)

## 1. Executive summary

Limited survey data from STEM disciplines in the UK indicate we are nearly twice as less likely to retain LGBTQ+ people in the STEM sectors [1] compared with heterosexual and cisgender counterparts. This reflects a number of exclusionary practices relating to the culture and structural governance of the sector that prevent LGBTQ+ people from being able to bring their authentic and uninhibited selves to their place of work or study. Even within the LGBTQ+ community, the negative experiences are more acutely felt by women, minority ethnic groups, people with disabilities and transgender and nonbinary people. In order to better retain LGBTQ+ people, we recommend:

- **An independent body that adjudicates the collection, curation and transparent interpretation of data on the diversity and experiences of LGBTQ+ people with research funding agencies, universities, colleges and schools in the UK focusing on STEM**
- **Mandate the establishment of an LGBTQ+ inclusion charter to monitor inclusive workplace culture in teaching and research organisations.**

## 2. The common experiences of LGBTQ+ people in STEM

2.1. Exclusionary cultures in workplaces, universities and schools include hostile environment, social exclusion, professional devaluation, higher frequencies of harassment and bullying [1], and being overlooked for funding, jobs and promotions (see peer-reviewed paper in Science Advances [2]). The impact of these elements manifests in significant under-representation of LGBTQ+ people from students to higher levels of academic jobs in STEM [2].

2.2. Systematic exclusion including bias in funding (e.g. fellowship interview) panels and institutional triaging of applications [3], failure to adopt appropriate diversity training and inclusion policies that meet the requirement of the Equality Act 2010, mandatory field research trips to locations where LGBTQ+ identities are either persecuted or punishable by law (see illustrated [world map](#) [4]), failure of funders, universities, academic journals and professional societies to update name and gender markers of transgender and nonbinary people [5,6].

## 3. Inequality *within* the LGBTQ+ community working or studying in STEM

3.1. Level of exclusion of LGBTQ+ people varies by sub-discipline in STEM. For example, nearly twice as many LGBTQ+ scientists in Chemistry have experienced exclusion compared to Astronomy [1]. This is most acute in areas where there is greater underrepresentation of women generally [7].

3.2. Exclusion is more acutely felt by transgender and non-binary people, as well as LGBTQ+ people in general who are not out at the place of work or study

3.3. LGBTQ+ exclusion most negatively impacts people with intersectional identities (i.e. women, ethnic minorities and disabled people who also identify as LGBTQ+), as identified by the upcoming UKSI-NSPN (UK/US) bilateral report (see appended copy of preliminary report).

## 4. What has to be done to address the lack of inclusion for LGBTQ+ people in STEM

4.1. We highlight the urgent need for the collection and analysis of diversity data relating to LGBTQ+ identities (including intersectional effects), and their lived experiences - both in quantitative and qualitative forms. Exemplary data collection and analysis approaches include:

- 4.1.1. [US 2015 Transgender Survey](#) [8] which examines the intersectional impact (for example, of ethnicity and gender identity) on specific mechanisms of marginalisation or exclusion

4.1.2. Institute of Physics and Royal Society of Chemistry survey [1] limited to 1000 physical scientists is exemplary of the type of questions that capture lived experiences of LGBTQ+ people in STEM. Future surveys must consist of larger cohorts and extend to other STEM disciplines and intersectional identities.

4.2. Diversity data collection, curation, analysis and interpretation must be refereed by an independent body (outside of universities or UKRI) in order to ensure unbiased monitoring of LGBTQ+ inclusion and transparency of observed trends.

4.3. A government-mandated framework or charter under an independent body such as Advance HE or Stonewall UK that monitors LGBTQ+ inclusion in STEM workplaces, universities and schools throughout the UK is urgently needed.

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## References and links

- [1]. A joint report by the Institute of Physics, Royal Astronomical Society and the Royal Society of Chemistry entitled, 'Exploring the workplace for LGBT+ physical scientists'. 2019  
<https://www.rsc.org/new-perspectives/talent/lgbt-report/>
- [2]. Cech, E.A., Waidzunas, T.J.; 'Systemic inequalities for LGBTQ professionals in STEM'. Science Advances. 2021; 7 DOI: [10.1126/sciadv.abe0933](https://doi.org/10.1126/sciadv.abe0933)
- [3]. The Inclusion Group for Equity in Research in STEM; 'Barriers LGBTQI+ People Face in the Research Funding Processes', DOI: [10.31219/osf.io/dnhv8](https://doi.org/10.31219/osf.io/dnhv8)
- [4]. EQUALDEX <https://www.equaldex.com/equality-index>
- [5]. Tanenbaum, T.J., Retting, I., Schwartz, H.M., Watson, B.M., Goetz, T.G., Spiel, K., Hill, M.; 'A vision for a more trans-inclusive publishing world'. COPE. 2021.  
<https://publicationethics.org/news/vision-more-trans-inclusive-publishing-world>
- [6]. Leeds Live report on legal action against Leeds University <https://www.leeds-live.co.uk/news/leeds-news/leeds-university-accused-frightening-transphobia-21853934>
- [7]. Yoder, J.B., Mattheis, A.; 'Queer in STEM: Workplace experiences reported in a national survey of LGBTQA individuals in science, technology, engineering, and mathematics careers'. Journal of Homosexuality. 2016. 63(1): 1-27. doi: [10.1080/00918369.2015.1078632](https://doi.org/10.1080/00918369.2015.1078632)
- [8]. National Center for Transgender Equality; 'The report of the 2015 U.S. Transgender Survey'  
<https://transequality.org/sites/default/files/docs/usts/USTS-Full-Report-Dec17.pdf>

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