Race and gender inequity in awards and recognition

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Study of the Lasker Awards illustrates deep and persistent problems in academia.

What stands as evidence of discrimination or bias, particularly when it comes to complex decisions that are inherently multifactorial and largely subjective, such as who gets certain high profile awards? In a linked study (doi:10.1136/bmj-2023-074968), Jacobs and colleagues examined inequities in the gender and ethnic group of Lasker Award winners from 1946 to 2022 and found that only 8% (31/397) of awardees were women and 4% (17/397) were from non-white minority groups (categorised as racialised in the study). Over the past 77 years, the Lasker Award—sometimes referred to as America's Nobels because 95 of 397 Lasker laureates also received a Nobel prize—was given to only one non-white woman. The authors also found that the proportion of women among awardees did not improve significantly between the first and the last decade (15.6% in 2013-22 v 12.9% in 1946-55).[1]

These findings are shockingly consistent with previous reports on other high profile scientific awards such as Nobel prizes.[2,3,4] Like most observational descriptive epidemiological studies, these findings have limitations. For example, what exactly is the denominator (that is, the population eligible for nominations)? Several decades ago it was argued that there were fewer women and non-white scientists eligible for these awards.[5] However, the inequity did not improve despite a large increase in the number and proportion of women and minority ethnic people working in science, technology, engineering, and mathematics, indicating a potential glass ceiling.[1,6,7] Therefore, despite some shortcomings, these study findings are persuasive and strong evidence of inequity.

The inequity extends beyond prestigious awards. Women, whether award winners or not, receive lower wages and are accorded less prestige than men for comparable work.[8] In 2022, median hourly earnings across all sectors were 12% lower for women than men in the United States, and 8.3% lower in the United Kingdom.[9,10] There is pervasive, persistent inequity in salaries, recognition, and academic promotion in higher education institutions.[11] Despite an increase in the number of women and ethnic minority students and early career researchers in these institutions, substantial inequity by gender and ethnicity remains in top academic positions such as professors. In 2019-20, 54% of staff working in UK higher education institutions were women but only 28% of all professors were women.[11,12]

The extent of inequity is multidimensional and intersectional. At higher education institutions in the UK in 2019-20, 66.3% of professors were white men, 23.6% were white women, 7.7% were black, Asian, and minority ethnic men, and just 2.3% were black, Asian, and minority ethnic women.[11] Clearly, a single dimension of vulnerability (such as gender or ethnicity) does not explain the extent of inequity. This was evident in the study by Jacobs and colleagues—only 8% of Lasker Award winners were women, and only 0.25% were non-white women.[1]

These multiple dimensions of inequity might compete with each other for priority.[13] Recent reports suggest that, in response to initiatives to improve equity, diversity, and inclusion, UK higher education institutions prioritised gender over race and ethnicity.[14,15] Institutions might also create an illusion of equity by increasing diversity in relatively low tier positions (such as non-professorial posts, early career researchers, graduate students) or categories (non-research or service related posts).[8,16] In the linked study, women were awarded 5% of Lasker research awards, but 20% of public service awards.[1] Similarly, white women comprise 41.2% of non-professor positions in UK higher education institutions compared with 23.6% of professorial positions.[11]

Is this evidence of bias on the part of those who award the prizes? The causes of inequity are complex and multidimensional. Women and non-white people are more likely to report

imposter syndrome—a perception of intellectual inadequacy despite objective evidence of competence and success.[13,17] This could lead to lower self-esteem, which might negatively affect long term success and the likelihood of being nominated for awards.[17] However, bias (conscious and unconscious), systemic racism, and misogyny are the upstream factors contributing to these outcomes.[18] They must be addressed through the creation of safe and inclusive environments, accessible and appropriate mentoring, and measures to improve our understanding of unconscious bias, systemic racism, and homophily (greater attraction for "people like us").[19,20]

Jacobs and colleagues' findings and those of other studies argue for broadening the selection committees that give awards, prizes, grants, and recognition of all kinds to include a higher proportion of people from underrepresented groups, along with more active solicitation of nominations from these groups.

Awarding authorities often withhold data on nominations and the composition of selection committees for long periods, often decades, before making them publicly available for analysis and scrutiny. As a result, there are limited opportunities to study the structures and practices that influence decisions about scientific awards, professional recognitions, and promotions. We urge awarding authorities to make these important data publicly available in a timely manner for independent review and scrutiny.

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References:

1 Jacobs JW, Bibb LA, Allen ES, *et al.* Women and Racialised Persons among Lasker Award Recipients from 1946-2022. *BMJ* 2023;:e074968. doi:10.1136/bmj-2022-074968

- 2 Silver JK, Slocum CS, Bank AM, *et al.* Where Are the Women? The Underrepresentation of Women Physicians Among Recognition Award Recipients From Medical Specialty Societies. *PM R* 2017;**9**:804–15.
- 3 Lunnemann P, Jensen MH, Jauffred L. Gender bias in Nobel prizes. *Palgrave Commun* 2019;**5**:1–4.
- 4 Holman L, Stuart-Fox D, Hauser CE. The gender gap in science: How long until women are equally represented? *PLOS Biology* 2018;16:e2004956. doi:10.1371/journal.pbio.2004956
- 5 Mahmoudi M, Poorman JA, Silver JK. Representation of women among scientific Nobel Prize nominees. *The Lancet* 2019;**394**:1905–6. doi:10.1016/S0140-6736(19)32538-3
- 6 National Center for Science and Engineering Statistics (NCSES). Diversity and STEM: Women, Minorities, and Persons with Disabilities 2023. Alexandria, VA: : National Science Foundation 2023. https://ncses.nsf.gov/pubs/nsf23315/report (accessed 9 Apr 2023).
- 7 Loden M. Recognizing women's potential: no longer business as usual. *Manage Rev* 1987;76:44.
- 8 Ma Y, Oliveira DFM, Woodruff TK, *et al.* Women who win prizes get less money and prestige. *Nature* 2019;**565**:287–8. doi:10.1038/d41586-019-00091-3
- 9 Aragão C. Gender pay gap in U.S. hasn't changed much in two decades. Pew Research Center. https://www.pewresearch.org/fact-tank/2023/03/01/gender-pay-gap-facts/ (accessed 9 Apr 2023).
- 10 Office for National Statistics. Gender pay gap in the UK. 2022.https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandwo rkinghours/bulletins/genderpaygapintheuk/2022 (accessed 9 Apr 2023).
- 11 AdvanceHE. Equality in higher education: staff statistical report 2021. 2021.
- 12 AdvanceHE. Equality in higher education: student statistical report 2021. 2021.
- 13 Clance PR, Imes SA. The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy* 1978;**15**:241.
- 14 Bhopal K, Henderson H. Competing inequalities: gender versus race in higher education institutions in the UK. *Educ Rev* 2021;73:153–69.
- 15 Bhopal K. *White privilege: The myth of a post-racial society*. 1st ed. Bristol University Press 2018. doi:10.2307/j.ctt22h6r81
- 16 Meho LI. The gender gap in highly prestigious international research awards, 2001–2020. *Quant Sci Stud* 2021;**2**:976–89. doi:10.1162/qss_a_00148
- 17 Muradoglu M, Horne Z, Hammond MD, *et al.* Women—particularly underrepresented minority women—and early-career academics feel like impostors in fields that value brilliance. *J Educ Psych* 2022;**114**:1086–100.

18 Silver R. Imposter syndrome—am I a fraud? *BDJ Team* 2022;9:14-17. doi:10.1038/s41407-022-0990-z

19 O'Meara K, Culpepper D, Templeton LL. Nudging Toward Diversity: Applying Behavioral Design to Faculty Hiring. *Rev Educ Res* 2020;**90**:311–48.

20 McPherson M, Smith-Lovin L, Cook JM. Birds of a feather: homophily in social networks. *Annu Rev Sociol* 2001;27:415-44.