

# New analysis offers insights into causes of persistent inequities affecting non-white scientists and their research

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A team of NYU Abu Dhabi (NYUAD) researchers, including data and computational social scientists, is reporting new findings that highlight

previously unknown ways through which non-white scientists suffer from inequities when it comes to the process of having their research considered, published, and cited, potentially hindering the advancement of their academic careers.

Specifically, the NYUAD team's analysis found fewer non-white editors than would be expected based on their share of authorship. In addition, non-white scientists endure longer waiting times between the submission and acceptance of their [manuscripts](#), and upon publication, their papers receive fewer citations than would be expected based on textual similarity.

The study, "Non-White scientists appear on fewer editorial boards, spend more time under review, and receive fewer citations," appears in the [journal](#) *Proceedings of the National Academy of Sciences (PNAS)*.

The researchers compiled an unprecedented dataset of 1,000,000 papers published between 2001 and 2020 by six publishers—*Frontiers*, *Hindawi*, *IEEE*, *MDPI*, *PLOS*, and *PNAS*—while identifying the handling editor of each paper, as well as the date of submission and acceptance of those papers. Three key outcomes were the focus of the analysis: the editor-to-author ratio; the time spent between the submission and acceptance of a paper; and the number of citations a paper received relative to textually-similar papers.

Their analysis showed that most countries in Asia, Africa, and South America (where the majority of the population is ethnically non-white) have fewer [editors](#) than would be expected based on their share of authorship. Focusing on US-based scientists revealed Black researchers as the most underrepresented. In terms of time spent under review, the analysis found that papers from Asia, Africa, and South America spent more time under review compared to other papers that were published in the same journal in the same year.

Also within the US, papers submitted by Black authors spent the longest time under review. Finally, by analyzing citation rates of US-based papers, the researchers found that Black and Hispanic scientists received significantly fewer citations than white researchers doing similar [research](#). The researchers used an algorithmic tool that classifies a scientist's race based on their name.

"Our findings confirm that there continues to be a glaring, troubling racial gap in scientific research citations impacting non-white scientists," said Bedoor AlShebli, NYUAD Assistant Professor of Computational Social Science. "This means these researchers likely have lower visibility compared to their peers doing similar research. The implications for them, especially being less likely to receive funding for their work, can be incredibly detrimental to their academic careers."

"While it's clear that [publishers](#) have considerable work to do to audit their editorial processes to detect and eliminate any disparities, the responsibility for action is not limited to them—the entire scientific community must strive to create an ecosystem without the geographical and racial disparities that are currently hindering career advancement and impeding scientific progress," continued Talal Rahwan, NYUAD Associate Professor of Computer Science.

**More information:** Fengyuan Liu et al, Non-White scientists appear on fewer editorial boards, spend more time under review, and receive fewer citations, *Proceedings of the National Academy of Sciences* (2023). [DOI: 10.1073/pnas.2215324120](https://doi.org/10.1073/pnas.2215324120)

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