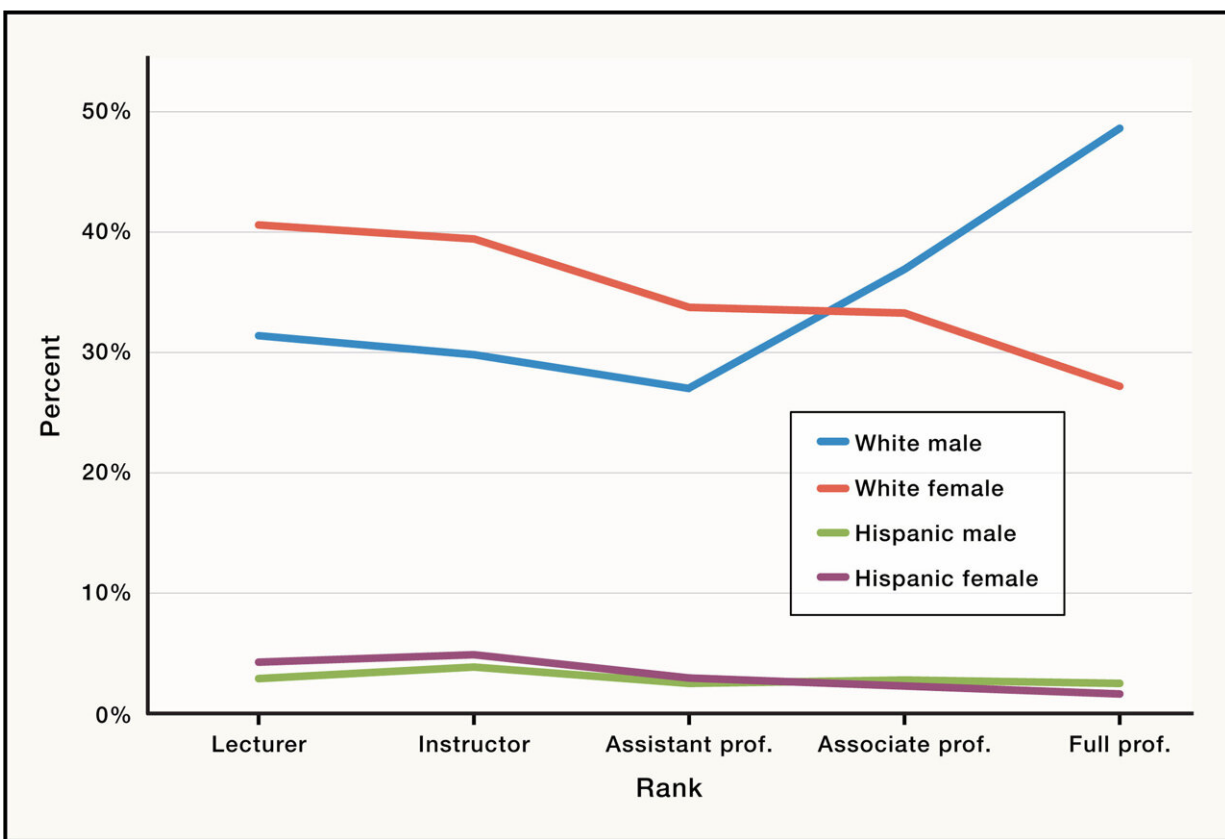


# Early career Latinas in STEM continue to face challenges in academia

November 13 2023



Percent representation of White and Hispanic males and females in 2021 by academic rank. Credit: *Cell* (2023). DOI: 10.1016/j.cell.2023.10.016

In 2022, Latinos, as a group, comprised more than 19% of the U.S. population or nearly 64 million individuals. People of Mexican ancestry

make up almost 12% of the US population and 62.3% of Latinos. Mexican, Puerto Rican, and Central American Ancestry (MPRCA) individuals represent 4 of 5 of US Latinos but continue to be underrepresented across the board in every job profession in the United States, including STEM (science, technology, engineering, and mathematics) careers. The disparity is even greater for Latinas in academia.

To help gain a better understanding of the underrepresentation, an intergenerational group of 16 MPRCA Latinas and allies met to identify major challenges to hiring, persistence, and success faced by early career MPRCA Latinas. Their research, titled "[Early Career Latinas in STEM: Challenges and Solutions.](#)" was released in *Cell*.

The group identified multi-level challenges that present barriers to MPRCA Latinas (and others) and solutions for Institutions, Departments and Mentors, and Individuals that would benefit MPRCA and the entire academic community. The challenges include financial concerns, caregiver and other [family responsibilities](#), academic inclusion, evaluation of service, especially involving [community outreach](#) and mentoring, mentoring needs, and safe environments.

"The lack of MPRCA Latinas in academia, when research has shown that Latinas show an early interest in science but lack advanced degrees, results from early life experience, including inequitable education in low-income areas and inadequate mentoring and encouragement from teachers, but, while some of the challenges may change, they don't end when Latinas become post-doctoral researchers and faculty in colleges and universities," said University of New Mexico Professor Emeritus of Biology, Maggie Werner-Washburne.

"Latinas and Latinos have documented success as tenure-track faculty. Latino culture values cooperation, collaboration, outreach to the

community, and imagination, which is critical for scientific discovery. In addition, the number of Latinas in the US, suggests this group, with adjustments to the educational ecosystem, could contribute rapidly and significantly to innovation and growth at all levels of academia."

Financial concerns are inevitably at the forefront for MRPCA Latinas. Latinos as a whole (18% of the population) hold only 2.9% of U.S. wealth. The disparity increased during the pandemic, with Latinas being the lowest-paid workers in the US, averaging \$723/week and earning 46% less than white men and 26% less than white women.

Caretaking is also a primary role for Latinas, higher than other documented groups. In fact, every Latina co-author on the paper had been a caretaker, sometimes for decades and at every stage of their careers. If asked if they were caretakers, most would say no since caretaking is considered both a cultural responsibility and an honor. The fact that most colleagues aren't aware of these additional roles is a testament to the ability of this group to multitask and their commitment to their careers.

Solutions to address this challenge for retaining and promoting successful career pathways for MPRCA scientists include increased transparency between faculty, departments, and administrations, building stronger academic communities, mentoring and inclusion with representation throughout academia. Re-evaluating the service that Latinas carry out automatically, including community outreach, mentoring, and advising—is needed, to recognize that this work contributes to the mission of every university in the US.

"Latinas tend to want community, even in their departments. So, appreciating what they can bring to departments, where the reward system leads frequently to competition and isolation, is important," said Werner-Washburne. "Community and team-building skills that can be

part of the MPRCA [cultural background](#) as well as the understanding of how to bridge cultures, are crucial for interdisciplinary teams, in leadership positions, and can be harnessed to open novel paths to solve institutional problems."

Mentoring is another crucial aspect that can provide [emotional support](#) for mentees at each career stage. The paper recognizes that skillful, intra- and cross-cultural mentoring can provide emotional support for MPRCA and other mentees at each career stage. Since underrepresented faculty often act as mentors, institutions should give this level of service more recognition in tenure, promotion, and salary merit decisions.

"The goal of this paper is to focus on approaches that will increase representation and persistence of MPRCA Latinas in STEM, whose commitments to scientific discovery, family, and social mobility compels them to pursue a career that is both tremendously demanding and rewarding," said Werner-Washburne.

"We believe these same commitments are at play for other faculty of color, including Native Americans and faculty of color from other traditions. Understanding and seeing how these differences, commitments, and aspirations can lead to greater success at all levels and contribute significantly to societal change."

"We hope this paper contributes to the awareness that education is an ecosystem spanning early childhood to retired faculty and that identifying ways to support greater representation and success starts at the top and can lead to much needed change in academia. We believe it is the first paper to offer specific ideas for institutions, departments and mentors, and individuals to improve the hiring process, retention, and tenure of Latinas that also provides suggestions for improving university climates in general."

**More information:** Maggie Werner Washburne et al, Early career Latinas in STEM: Challenges and solutions, *Cell* (2023). [DOI: 10.1016/j.cell.2023.10.016](https://doi.org/10.1016/j.cell.2023.10.016)

Provided by University of New Mexico

Citation: Early career Latinas in STEM continue to face challenges in academia (2023, November 13) retrieved 21 May 2024 from <https://phys.org/news/2023-11-early-career-latinas-stem-academia.html>

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