

Introduction to ADVANCE Journal:

Volume 5, Issue 2

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Dear Readers,

This general issue of the ADVANCE Journal arrives in the wake of a highly contested and divisive US Presidential Election. Regardless of one's political affiliation or preference, we appear to be standing at the precipice of a significant political and cultural shift. In the past few years, higher education re-emerged as a political battleground and an arena for culture wars. It was also a key election issue. In particular, the institutional efforts towards inclusion, equity, diversity, and justice in higher education—one of the key thematic areas of the ADVANCE Journal—has come under attack. It seems likely that higher education will be one of the areas where the new administration will strive to leave an imprint.

The articles in the ADVANCE Journal, even the Journal's very existence, illustrate how the work of making higher education equitable and inclusive has never been easy. Faculty, scholars, and administrators in STEM who are women, QTBIPOC, working class, and non-citizens continue to face significant barriers to achieving the same level of success as those with the privileges of gender, race, and class. Despite many institutions of higher education asserting a commitment to and adopting DEI policies, equity among STEM faculty in tenure and promotion decisions, research support, and recognition remains an uphill battle. On the other hand, when equity has been normalized, the University of Michigan being a prominent example, institutions have become the target of conservative lawmakers and activists who argue that the meritocracy of STEM higher education has been compromised, that these institutions are ineffective in aiming for their missions of inclusion, and/or that students and faculty without minoritized identities have been discriminated against. .

In this context, the research articles in this issue speak to the continued existence of hierarchies, systemic discrimination, and margins in STEM higher education. In [*The Clash of*](#)

[*Academic Hierarchy and Inclusive Leadership*](#), Diane Coddling and Bennett Goldberg illustrate how even in institutions with deep commitment to DEI, the principles of equity and inclusion are not reflected in leadership structures, which continue to be hierarchical. They argue that inclusive leadership models are critical for DEI work to be impactful in an institution. Sue Rosser writes about the intersectional barriers, discrimination and bias, and invisibilization experienced by foreign born women faculty in STEM departments in [*Towards a Better Understanding of the Experiences of FB/FT STEM Faculty*](#). Rosser highlights the ways in which immigration status limits access to funding and grants for foreign born/international faculty and scholars, its impact on tenure and promotion, and how visa rules shape their job decisions. Institutional DEI policies rarely address the precarity of foreign-born faculty and students. However, the attempts to eliminate DEI funding may impact other resources and support structures that foreign born and international students and faculty depend on to mitigate the many barriers they face at the intersection of gender, race, and immigration status.

In [*ASPIRED Project's Impact on Gender Equity in STEM*](#), Esra Ozdenerol and colleagues assess the impacts of the NSF ADVANCE funded ASPIRED Project at their institution. This multi-pronged project, which sought to address the key issues faced by STEM women faculty—implicit bias, isolation, inequality in career advancement, and poor work-life-family integration—highlights the importance of concerted equity-focused initiatives. Contrary to the arguments made by anti-DEI activists about the limited impact of equity initiatives, the ASPIRE project's "small wins approach" shows that incremental successes in gender equity leads to broader institutional changes. Sonia Goltz and Patty Sotirin point to another barrier faced by faculty that can be addressed through ADVANCE grants and other such initiatives—the lack of mid-career mentoring. In [*Reflections on Experience: A Community of*](#)

[*Practice Mentoring Initiative for Mid-career Professionals*](#), they explain how a communal and practice-based program of academic peer mentoring can support faculty—particularly women and under-represented and/or traditionally marginalized minorities—in responding to daunting expectations and demands at the mid-career stage.

This issue also includes reviews of three new groundbreaking books that examine the experiences of women and scholars of color in STEM higher education through rigorous research and highlight how racism, misogyny, and other forms of discrimination and bias need urgent redressal. Laurie Cook’s review of [*Women in Science Now: Stories and Strategies for Achieving Equity*](#) (Columbia University Press, 2023) by Lisa M.P. Munoz commends the extensive scope of the book which explores gender bias in STEM starting with early childhood perceptions around girls and women in the sciences to the experiences of women scholars in academic STEM. [*Disparate Measures: The Intersectional Economics of Women in STEM Work*](#) (MIT Press, 2024) by Mary A. Armstrong and Susan L. Averett examines the economic and professional realities faced by diverse women in STEM fields. In their review of the book, Ana Lucia Fonseca Tapia highlights the authors’ pioneering intersectional economic approach through which they explore how various social identities intersect and compound to shape the experiences of women in STEM. Ebony Omotola’s [*Black, Brown, Bruised: How Racialized STEM Education Stifles Innovation*](#) also explores the lack of diversity, especially the marginalization of Black, Latinx, and Indigenous students in STEM and its impact on innovation. In their review, Earl Lee and Mary Bankhead laud how the book not only highlights systemic inequities but also gives recommendations for fostering a transformative “STEM for all” mindset rooted in equity and inclusion. We are pleased to showcase these books that give us a well-researched picture of higher education—its problems and failures, and its successes and

possibilities—in the current moment. Considered in the light of so much evidence regarding the intersectional barriers and biases in STEM and beyond, the call for defunding initiatives that seek to foster equity, inclusion, and justice is deeply alarming.

Together, these articles show that the current issues in higher education that come under the purview of inclusion, equity, and diversity are complex, varied, systemic, and take various implicit and explicit forms. They also illustrate that the interventions—institutional, departmental, or faculty-led—that seek to address these issues are also diverse and include mentoring, professional development grants, networking groups among other things. These initiatives benefit not just women in STEM, but all faculty, students, and scholars in an institution. Thus, this issue offers important insights into the need for and ways to address inclusion, equity, and justice in higher education at a critical juncture. It provides a counter narrative to the mainstream discussions about DEI that often reduces DEI to admissions, recruitment, and curriculum, offering research findings, dialogue, and thick narratives that addresses systems of oppression, intersectionality, and strategies for resistance and change in all fields of inquiry, especially in the academic STEM disciplines.

Our hope is that the articles in this issue will challenge the misconception that “DEI has gone too far,” and remind us that the work of making higher education an equal space where people can thrive—irrespective of their gender, race, class, and country of origin—has just begun. We have a long way to go before higher education becomes a place where people’s embodied and situated knowledge and perspectives are valued and cherished. Perhaps this is one of many necessary steps along that path.