

## **Book Review**

*Disparate Measures: The Intersectional Economics of Women in STEM Work.* By Mary A. Armstrong and Susan L. Averett. MIT Press, 2024.

*Disparate Measures* comprehensively explores the economic and professional realities faced by diverse women in STEM fields. The authors utilize a blend of data-driven analysis and narrative storytelling to dismantle the myths surrounding meritocracy in STEM and, by extension, the broader fallacy of meritocracy embedded in the current capitalist framework. Through this examination, they highlight how systemic racism and misogyny continue to marginalize women, especially women of color, in these highly competitive fields.

Armstrong and Averett's analysis is distinguished by their pioneering intersectional economic approach. This method, which merges intersectionality theory, critical data theory, and feminist economics, allows them to delve into the complex ways in which various social identities intersect and compound to shape the experiences of women in STEM. The authors stress that these intersections create unique barriers that are not adequately addressed by traditional analyses that consider gender or race in isolation.

Each chapter of the book focuses on a specific demographic group, offering a detailed case study that illuminates the distinct challenges faced by these women. For instance, in their discussion of Asian and Pacific Islander women in STEM, Armstrong and Averett reveal how the model minority myth often obscures the real struggles these women face, such as workplace discrimination and underrepresentation in leadership roles. Similarly, their analysis of women with disabilities in STEM highlights the lack of accessible resources and the pervasive ableism that can hinder career advancement.

One of the most impactful contributions of *Disparate Measures* is its nuanced discussion of how motherhood, disability, and marital status intersect with professional life in STEM. The

authors illustrate these intersections with compelling narratives, such as a single mother navigating the demanding landscape of academia while juggling caregiving responsibilities.

They highlight how institutional policies often fail to support these women, leaving them to navigate a system that is not designed with their needs in mind.

The book also addresses the limitations of data in capturing the full extent of these experiences. Armstrong and Averett acknowledge that while quantitative data provides a necessary foundation for understanding disparities, it often fails to truly capture the multifaceted and nuanced aspects of discrimination and exclusion. They supplement statistical analysis with rich contextual narratives, ensuring that the nuances present in the complexity of identity of these women are not lost in numbers. This approach not only humanizes the data but also underscores the complexity of the issues at hand and calls the reader to a critical lens when reading and interpreting statistics for diverse women in STEM.

In advocating for institutional transformation, Armstrong and Averett call for a critical reevaluation of how success and diversity are measured in academia. They critique the current focus on proportional representation and the so-called “STEM premium”—the idea that STEM fields inherently provide better economic outcomes. The authors argue that these metrics are insufficient and can be misleading, as they often mask the ongoing economic disadvantages faced by diverse women. They assert that true equity requires a shift in focus from numerical representation to the quality of women’s experiences and their holistic well-being within the academic and professional environments.

Armstrong and Averett’s key recommendation is for academia to move beyond superficial diversity initiatives. They advocate for a more profound, systemic change that encompasses not only equitable pay but also comprehensive support systems for holistic health,

including mental and emotional well-being. This perspective is crucial for addressing the broader issues of belonging and professional appreciation that many women in STEM feel are lacking.

By focusing on these aspects, Armstrong and Averett propose a more inclusive approach that considers the full spectrum of challenges faced by women in these fields.

The book's final chapter, "Realities and Possibilities," serves as both a summary and a call to action. Armstrong and Averett advocate for a new framework to analyze women's situations in STEM, one that looks beyond traditional metrics and considers the wider economic landscape that disadvantages women from all backgrounds. They emphasize that understanding and addressing these systemic issues is crucial for fostering true equity and justice in higher education. As they poignantly state, "We recommend a reconsideration of the metrics around STEM diversity, with an emphasis from moving away from the fetishization of both proportional representation and the STEM premium as ways to (mis)measure the economic advantages of STEM for diverse women" (p. 262).

*Disparate Measures* is a seminal work that challenges existing paradigms and provides a roadmap for meaningful institutional transformation. Armstrong and Averett's insights are not only relevant to STEM fields but also offer valuable lessons for all areas of academia and beyond. Their call for a comprehensive reevaluation of how we measure success and support women in academia is both timely and necessary. The book urges readers and institutions to move beyond tokenistic gestures towards diversity and to engage in a deeper interrogation of the systemic barriers that continue to perpetuate inequality. As such, *Disparate Measures* stands as a vital contribution to the ongoing conversation about equity, justice, and inclusion in higher education, offering a powerful vision for a more just and equitable future for all women in STEM. The work and insights of Armstrong and Averett are revolutionary, and their revelations

challenge us to interrogate an established system that perpetuates economic and power disadvantages.

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*(910 words)*

Dr. Ana Lucia Fonseca advocates for social change, authenticity, and organizational diversity. She is the Director of Diversity, Equity, and Inclusion at Oregon State University Division of Extension and Engagement. In her role, she emphasizes the importance of language access, fostering an inclusive environment, and ensuring Civil Rights compliance. Ana Lucia holds a Ph.D. in Language Equity and Education Policy, focusing on Latina entrepreneurship, highlighting her dedication to addressing language barriers and promoting equitable education opportunities. She also has a diverse academic background, including a BS in Social Psychology and an MS in Forest Engineering, where she specialized in social innovation for community development.

Before her current role as the DEI Director, Ana Lucia was an extension faculty member, designing multilingual and culturally relevant STEM and healthy living curricula. Throughout her career, Ana Lucia has worked with the Federal Mexican Government and collaborated with the International Fund of Agriculture Development on innovative rural development initiatives for indigenous communities, always emphasizing the importance of language accessibility and cultural relevance.

Ana Lucia is passionate about social justice, the dynamic intersection between innovation and diversity, culturally relevant programming, economic equity, and community economic empowerment. She also serves on the Oregon State Credit Union Board of Directors and is an ARCS Foundation for Science in America member.