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Too Black to be Woman and Too Much Woman to be a Man: Black Women Attempting to Reconcile Their Multiple Identities in Academic and Professional Engineering Spaces

Dr. Stacie LeSure, American Society for Engineering Education

Dr. LeSure is a Program Director and Senior Researcher in the College of Engineering at Howard University. She manages various research projects focused on the academic perceptions and persistence of students in STEM, particularly those students who are traditionally underrepresented in STEM careers. Prior to joining Howard, she served as a Research Fellow at the American Association of University Women (AAUW) and a postdoctoral researcher at the American Society for Engineering Education. Dr. LeSure worked as an engineer for over a decade before switching gears and devoting her time and talents to focus on pertinent issues, including STEM education, equity and inclusion initiatives in education and the STEM workforce, and corporate development and training. She is also the founder and Executive Director of Engineers for Equity - a mission-driven organization focused on fostering equity and inclusion in engineering.

Dr. LeSure earned a Ph.D. in Engineering Education at Utah State University, where her doctoral research applied Critical Race Theory and Intersectionality frameworks to critically examine effective intervention strategies to reduce the negative consequences of stereotype threat. She also has a Master of Science in Materials Science and Engineering from Georgia Institute of Technology and a Bachelor of Science in Physics from Spelman College. Dr. LeSure obtained the status of ABD (All But Defense) in Materials Science and Engineering at North Carolina State University.

Dr. Sharnnia Artis, University of California, Irvine

Dr. Sharnnia Artis is the Assistant Dean of Access and Inclusion for the Henry Samueli School of Engineering and Donald Bren School of Information and Computer Sciences at the University of California, Irvine. She is responsible for programs at the precollege, undergraduate, and graduate levels to facilitate the recruitment, retention, and overall success of students from traditionally underrepresented groups in engineering and information and computer sciences. Dr. Artis has 18 years of experience working with education and outreach programs in engineering and over 35 publications in STEM education and outreach. Prior to joining UC Irvine, she was the Education and Outreach Director for the Center for Energy Efficient Electronics Science at the University of California, Berkeley. Previously, Dr. Artis spent nine years at Virginia Tech providing program and student support for the Center for the Enhancement of Engineering Diversity and has four years of industry and government experience as a human factors engineer. Dr. Artis holds a B.S., M.S., and Ph.D. in Industrial and Systems Engineering from Virginia Tech.

Too Black to be Woman and too much Woman to be a Man. Black women attempting to reconcile their multiple identities in Academic and Professional Engineering Spaces.

Black women are often underrepresented in engineering despite reports that a higher percentage of Black women (9.7%) are enrolled in college than any other group, exceeding Asian women (8.7%), White women (7.1%) and White men (6.1%) [1]. The proposed workshop will discuss the ongoing Nyela Project and highlight the topics of identity and the authentic experiences of Black women in doctoral and postdoctoral programs.

The Nyela Project is an NSF-funded research initiative (Award Number: EEC 1648332) aimed to gain an in-depth understanding of the experiences of Black women in engineering and computer science, a group that is often overlooked. The proposed workshop will focus on increasing awareness and understanding of the specific issues facing Black women in engineering while also focusing on ways to better understand marginalized communities in academia and beyond. The target audience for this session are Black women interested in or pursuing advanced degrees in STEM disciplines and those working in STEM professions. Suggested audience also includes individuals who are dedicated to understanding and positively impacting marginalized or underrepresented populations. An understanding of this population will better inform practices and policies aimed at broadening participation in engineering.

Format

This workshop is designed to be interactive and informative of pressing issues impacting the experiences of Black women in engineering. The session will begin with a Privilege Activity that serves as a catalyst for engagement and aims to increase participants' understanding of privilege. Following the Privilege Activity, the presenters will lead a discussion that focuses on emerging themes from the Nyela project. Special attention will be dedicated to the following themes:

- Black women have multiple identities that impact their experience in engineering.
- Some of Black women's identities are accepted in academic and professional spaces; others are not.
- Recognizing the intersectionality of STEM, gender, and race identity.
- Preliminary strategies for cultivating environments where Black women's multiple identities are equally accepted, including cultural capital.

Next, the presenters will facilitate small group discussions of best practices to improve outcomes in the academic and professional lives of Black women in STEM and other marginalized communities. There will be a special emphasis on developing an authentic understanding of the challenges Black women face in STEM academic and professional environments.

Session Goals for Participants

Attending this workshop will offer the participants:

- Increased cultural competences by participating in a Privilege Activity and discussions aimed at better understanding marginalized communities.
- A better understanding of promising practices for serving and supporting marginalized and underrepresented communities in engineering.
- A deeper comprehension (and hopefully enhanced empathy) of the unique needs and challenges of Black women in engineering, particularly those in doctoral and post-doctoral programs.
- Knowledge of preliminary strategies for creating environments where all identities, particularly those of Black women are welcomed in academic and professional engineering spaces.

Breakdown of Activities

- (20 minutes) Privilege Test Activity –Audience will complete a short questionnaire aimed to extend the concept of privilege beyond race. The intent is to broaden perceptions of diversity and foster an understanding of the challenges that people from different social identities may experience.
- (20 minutes) Discussion of Nyela Project – Presenters will review the current progress and findings for Black women in engineering and computer science. This discussion will focus on themes of identity, experience, and ways to cultivate an environment that identity is accepted.
- (40 minutes) Facilitated Discussion with Attendees – Attendees will have the opportunity to reflect on presented findings. Guided questions will be used to facilitate discussion on how attendees can implement the findings to better understand and support Black women in academic and professional STEM environments.
- (10 minutes) Debrief and Resources – Presenters will summarize the discussion by highlighting key points and provide resources for content and continued connection.

Reference

1. U.S. Department of Education National Center of Educational Statistics: National Study of America: Indicators of Social and Economic well-Being. Retrieved on August, 28, 2014 from <http://www.whitehouse.gov/administration/eop/cwg/data-on-women>.