



Abstract: Increasing Diversity in STEM by Attracting Community College Women of Color



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Increasing and diversifying the U.S. science and engineering workforce have been the topic of recent government reports (National Academy of Sciences, 2007; Nelson & Brammer, 2007). An important component is increasing the participation of women of color in science, technology, engineering, and mathematics (STEM), which will help the United States reach both goals.

To attract women of color to STEM, the effort must start where many of them start higher education: community colleges. Community colleges historically have been an important corridor for women and students of color entering higher education, but low transfer rates have been cited as problematic for STEM recruitment. For recruitment and retention efforts to be successful, they must be informed by an understanding of the challenges and obstacles specific to women of color at community colleges and after transfer to universities.

Qualitative studies have highlighted barriers, challenges, and successes of women of color at two-year colleges and followed the students through their transition to four-year institutions (Chang, 2006; Reyes, in press; Valenzuela, 2006). Researchers have found that many women of color transferring from community colleges into STEM fields were the first in their families to pursue college degrees, often balancing extraordinary familial responsibilities such as caretaking of elderly family members (Ginorio & Huston, 2001; Nora, Cabrera, Hagedorn, & Pascarella, 1996; Sy, 2006; Sy & Romero, 2008). Contradictory messages from family can include expectations for students to attend college while being available to return home for ceremonies (such as funerals, weddings, and celebrations) when called upon (Varma & Galindo-Sanchez, 2006). At the same time, students drew inner strength from the cultural capital of their families and communities (Hurtado et al., 2007; Ornelas & Solorzano, 2004).

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