

It's not just about the money, say STEM students of color

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High-achieving undergraduates of color pursuing lucrative careers in science, technology, engineering and mathematics (STEM) have their sights set on social justice, not just a big paycheck, according to a new Vanderbilt study published in *American Journal of Education*.

"We found that many black and Latinx students felt it was important for them to use their careers to help others, which we describe as an equity ethic," said study co-author Lydia Bentley, a researcher at Vanderbilt's Peabody College of education and human development. "These students expressed that they were concerned about people who have been marginalized because of race or ethnicity—maybe because of the way they have suffered themselves—but they also had broader concerns about global disparities."

For the study, Bentley and lead author Ebony McGee, associate professor of education, diversity and STEM education at Peabody, collected data from 38 high-achieving black and Latinx STEM undergraduate students using semi-structured, life-story interviews. The prevailing perception of STEM as a means for global domination was troublesome for many of the students, they found.

"Frequently, STEM is associated with a more competitive and individualistic ideology, and for some of the undergraduates we spoke to, that created a conflict," Bentley said. "They weren't sure STEM was a [career](#) path that would allow them to make a positive difference in the world. They also expressed a very robust definition of community."

Many STEM workers are already on the frontlines of socially conscious efforts, like creating [water purification systems](#) for developing nations, engineering robots that help children with autism, and critiquing the surveillance technologies used to police black communities. These types of careers should be promoted as much as aerospace or nuclear engineering careers, the researchers say.

"STEM needs a marketing makeover," said McGee, a former engineer. "For example, many government reports perpetrate this ideology of joining and doing STEM to be competitive globally; to maintain our global dominance in military capability and other industries. But they

also should be promoting the message that STEM jobs can provide ways to do good and be equity justice advocates. We may be losing out on a population of black and Latinx STEM students, not because they can't do STEM, but because they can't see themselves in traditional STEM fields."

Children are introduced to the STEM fields in K-12 classrooms, and that's where the makeover should begin, Bentley believes.

"Discussions of how empathy and [social justice](#) relate to STEM should start early in classrooms, and should represent perspectives beyond the traditional Anglo American orientation," Bentley said. "Students who have an equity ethic need to know there is a place for them in STEM."

More information: Ebony McGee et al. The Equity Ethic: Black and Latinx College Students Reengineering Their STEM Careers toward Justice, *American Journal of Education* (2017). [DOI: 10.1086/693954](https://doi.org/10.1086/693954)

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