

Teachers think white females lag behind in math, study finds

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(PhysOrg.com) -- High school math teachers tend to rate white female students' math abilities lower than those of their white male peers, even when their grades and test scores are comparable, according to a University of Texas at Austin study.

Dr. Catherine Riegle-Crumb and sociology doctoral student Melissa Humphries conducted the study using nationally representative data from the Education Longitudinal Study (ELS) of 2002. The ELS followed a cohort of about 15,000 students from their sophomore year in high school through their post-secondary education and into the work force.

“If the [math](#) bias against females is present in elementary school, which past research shows it is, and continues through high school and then college, then it’s much less likely that you will find women pursuing math-related high-status occupations in science and technology,” said Riegle-Crumb, an assistant professor in the College of Education’s Department of Curriculum and Instruction and a faculty research associate at the Population Research Center in the College of Liberal Arts. “If you perceive the message ‘You’re just not quite as good at math as the boys are’ often enough, you may start to believe it.”

Teachers’ perceptions of students’ math abilities was one portion of the data gathered by the ELS. The teachers were asked to rate students on whether the math class in which the students were enrolled fit their abilities, was too easy for them or was too difficult for them.

“The bias teachers revealed against white female students may very well be something they are not consciously aware of, and it’s usually subtle,” said Riegle-Crumb, “but it’s definitely present, per our research findings.”

Previous research documented that racial bias persists and is pervasive. But this study is the first to reveal, at the [high school](#) level, that white female students are deemed less capable in math when measured against white males whose academic performance is comparable. Riegle-Crumb said it’s particularly disturbing that these teacher perceptions manifest at a time when most students are making decisions about post-secondary education and careers.

According to Riegle-Crumb, the majority of teachers rated both male and female minorities’ [math abilities](#) lower when their test scores and grades were indeed low, which does not constitute “bias” because there is reasonable data to support that evaluation. This does not suggest that minorities are free from substantial negative stereotyping, which can affect their academic and career aspirations and achievement.

“It’s important to keep in mind that even though the math bias against females in any one classroom may be small, taken over a lifetime and with thousands of accumulated experiences, it can influence one’s identity as well as the perceptions of others,” said Riegle-Crumb.

The study findings will be published in the April 2012 issue of the journal *Gender & Society*.

Provided by University of Texas at Austin

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