Math teachers demonstrate a bias toward white male students

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While theories about race, gender, and math ability among high school students have long been debated, a recent study found that math teachers are in fact, unjustifiably biased toward their white male students. This study was published in a new article released in the April 2012 issue of Gender & Society (GENDSOC), the official journal of the Sociologists for Women in Society, published by SAGE.

"This speaks to the presence of a perhaps subtle yet omnipresent stereotype in high school classrooms: Math, comparatively speaking, is just easier for white males than it is for white females," wrote the authors.

Researchers Catherine Riegle-Crumb and Melissa Humphries analyzed data collected by the National Center of Education Statistics (NCES) that consisted of a nationally representative group of about 15,000 students. Their data also included teacher surveys in which math teachers were asked to offer their personal assessment of individual students, indicating whether they felt that the course was too easy for the student, the appropriate level, or too difficult. The researchers compared these assessments with other data about the students such as their math GPA and their score on a standardized math test in order to determine if the teachers' perceptions of their students' abilities matched up with the students' actual scores.

After analyzing this data, the researchers found disparities between teachers' favorable perceptions of the abilities of their white male...
students and these students' scores. Conversely, white female students were perceived by teachers to be doing more poorly in their math classes than they actually were.

The researchers did not, however, find the same disparities between white students and minority students. In fact, they found that math teachers actually favored black female students, claiming that these students were more successful in their math classes than they actually were.

The authors wrote, "Once we take into account that, on average, Black and Hispanic male and female students have lower grades and test scores than white males, teachers do not rate the math ability of minority students less favorably than students belonging to the traditionally advantaged category of white males."

Riegle-Crumb and Humphries offered some explanations for their findings. For example, since few black females were enrolled in high-level math courses, teachers may have viewed the black female students in their advanced courses as overcoming more to be successful in mathematics, thus illustrating more perseverance and academic potential. Additionally, they explained that teachers may be more sensitive to their own tendencies towards racial bias than gender bias as gender bias may be so socially ingrained that it is harder to notice and therefore harder to resist.

The authors wrote, "The occurrence of bias in high school classrooms indicates that cultural expectations likely function to shape interactions and re-create inequality throughout the math pipeline that leads to high-status occupations in related fields of science and technology."

More information: "Exploring Bias in Math Teachers' Perception of Students' Ability by Gender and Race/Ethnicity," in Gender & Society is