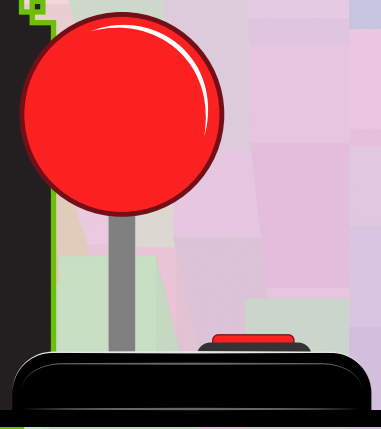# Faculty Gender, Race, and Ethnicity: THE STUDENT CONNECTION
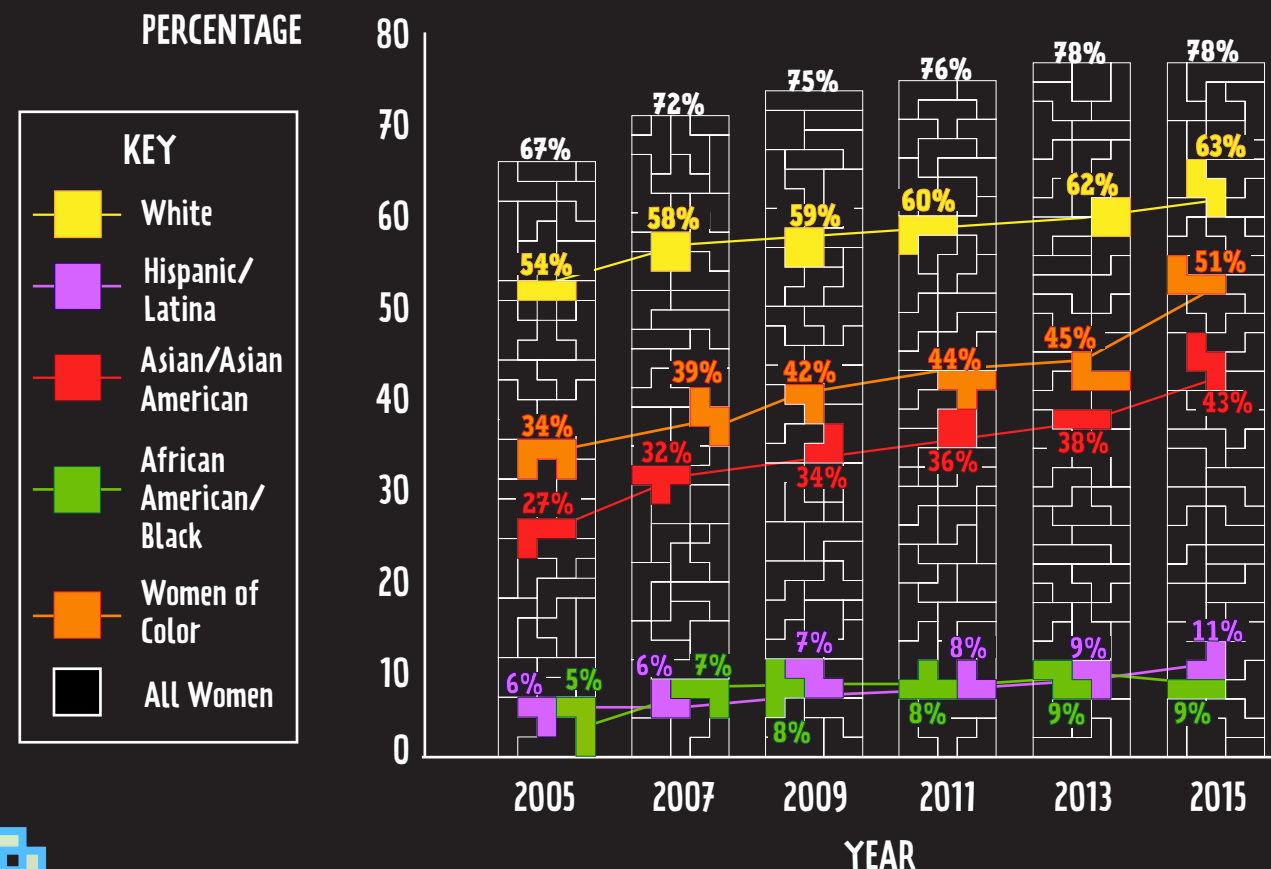
Faculty diversity plays a critical role in enhancing the academic experiences and retention of students as well as in engineering innovation. However, student diversity may also contribute to greater inclusiveness at the faculty level. Despite progress, female faculty of color remain underrepresented in engineering programs across the United States. Overall, women comprise only 17.5 percent of engineering professors, according to 2018 ASEE data. The representation of women of color is even starker: Just 0.5 percent of engineering faculty across the 319 ASEE member institutions are African American/Black women, while Hispanic/Latina and Asian/Asian American women make up 0.7 percent and 4.4 percent, respectively.
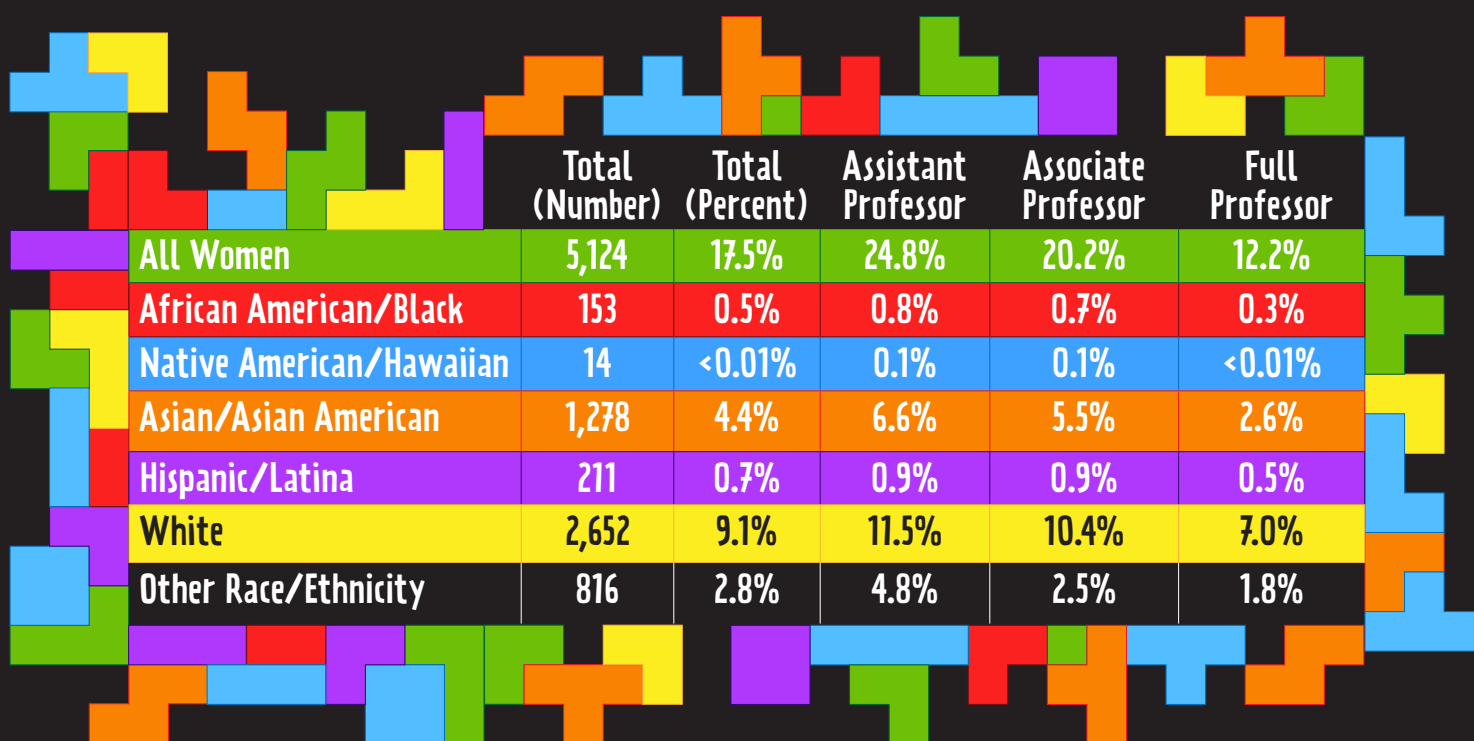
Examining faculty underrepresentation reveals persistent challenges to diversifying engineering. For instance, more than 1 in 5 engineering programs did not have one woman on the faculty from 2005 to 2016. Over half lacked even one woman of color until 2015. Additionally, less than 10 percent of engineering programs counted at least one African American/Black or Hispanic/Latina woman on the tenure track as late as 2014. Importantly, as the bottom right graph suggests, there appears to be a positive association between growth in student diversity and representation at the professorial level. For example, an increase of 100 African American/Black women who complete undergraduate engineering degrees is associated with a 3.2 person rise in the number of African American/Black women among tenure-track faculty.

ENGINEERING DEPARTMENTS WITH AT LEAST ONE TENURED/TENURE-TRACK FEMALE FACULTY MEMBER, BY RACE/ETHNICITY

KEY
- White
- Hispanic/Latina
- Asian/Asian American
- African American/Black
- Women of Color
- All Women

FEMALE ENGINEERING FACULTY (2018)

	Total (Number)	Total (Percent)	Assistant Professor	Associate Professor	Full Professor
All Women	5,124	17.5%	24.8%	20.2%	12.2%
African American/Black	153	0.5%	0.8%	0.7%	0.3%
Native American/Hawaiian	14	<0.01%	0.1%	0.1%	<0.01%
Asian/Asian American	1,278	4.4%	6.6%	5.5%	2.6%
Hispanic/Latina	211	0.7%	0.9%	0.9%	0.5%
White	2,652	9.1%	11.5%	10.4%	7.0%
Other Race/Ethnicity	816	2.8%	4.8%	2.5%	1.8%

CHANGE IN FEMALE FACULTY REPRESENTATION PER 100 ADDITIONAL BACHELOR'S DEGREE COMPLETIONS

Engineering Bachelor's Degree Recipients Who Are

African American/Black Women
- +1.9 (All Women)
- +3.8 (All Women of Color)
- +3.2 (African American/Black Women)
- +1.8 (Asian American Women)
- −1.2 (Hispanic/Latina Women)
- NS* (White Women)

Asian American Women
- +3.4 (All Women)
- −0.9 (All Women of Color)
- −0.1 (African American/Black Women)
- NS* (Asian American Women)
- −0.9 (Hispanic/Latina Women)
- +3.5 (White Women)

Hispanic/Latina Women
- +4.8 (All Women)
- +8.1 (All Women of Color)
- +0.2 (African American/Black Women)
- −0.4 (Asian American Women)
- +8.2 (Hispanic/Latina Women)
- −2.5 (White Women)

CHANGE IN FACULTY REPRESENTATION
- African American/Black Women
- White Women
- All Women of Color
- Asian American Women
- Hispanic/Latina Women

Data in this graph draw on the other charts' data while controlling for institutional factors, departmental characteristics, and faculty size. *The variable did not obtain statistical significance at the 0.05 level in the model.

Data drawn from 319 participating institutions.

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