STEM for ALL?

**A whopping 73% of scientists and engineers are white.**

A 2006 study showed that white men make up 55% of scientists and engineers (the vast majority) and white women 18%. Asians were the only minority group with significant numbers working in STEM, holding 17% of the jobs between both men and women. When it comes to other minority groups, the statistics are striking. Black men and women make up less than 3% of scientists and engineers, Hispanics 4%, and all other groups 3%. Added together, under-represented minorities make up only 10% of all of those working in science and engineering occupations. Even sadder? Only one in 10 STEM professionals is a minority woman.

**African-Americans, American Indians, and Hispanics between 18 and 24 account for 34% of the total U.S. population but earn only 12% of all undergraduate degrees in engineering.**

Engineering departments may need to work harder to draw in minority students, as few these days are pursuing careers in this field. Despite making up a significant portion of the population and the student body, very few minority students choose to enter engineering, with less than 12% coming from an under-represented group (and just 10% being female).

**The gap between educational achievement in STEM grows wider at the graduate level.**

While minorities are already uncommon at the undergraduate level, it's even less common for African-Americans, Hispanics, and Native Americans to pursue engineering degrees at the master's or doctoral level. Only 7% of master's students in engineering are URMs (under-represented minorities) and just 3% of doctoral students are; hardly representative of the larger American demographic. Things don't get much better when you include all STEM majors, with minorities making up just 5.4% of all doctoral students in STEM.

**Minority students report desiring to go into a STEM major at the same rate as their white and Asian peers**

Minority students may not be graduating at the same rate from STEM programs as their peers, but that doesn't mean they don't have an interest in STEM fields. Minority students, when interviewed, expressed desire to have a career in STEM at a rate that was equal to white and Asian students, with research reporting this all the way back into the 1980s. Some believe the gap exists because many minority students aren't afforded the same educational opportunities, receiving less science and mathematics instruction from more inexperienced teachers. Lack of mentors has also been proposed as a potential problem, as well as lack of financial assistance.
Minority STEM grads are less likely to use their STEM degrees in a future career than their white or Asian counterparts

Getting more minorities to graduate with STEM degrees is only half the battle, if statistics are right. Half of all non-Hispanic Asian STEM degree holders go into a STEM job but only 30% of Hispanics and non-Hispanic Black and American Indian and Alaska Native workers will do the same. This is troubling, considering low rates of minority students in STEM programs and even lower rates of degree completion.

While the overall percentage of 24-year-olds in the United States with STEM degrees is 6%, it's just 2.7% among African-Americans and 2.2% for Latinos.

Rates of minority students in college have increased over the past decade, and African-American and Hispanic students now make up 26% of all undergrads (though still falls short of the 33% of the population they comprise). Yet when it comes to STEM, they're simply not graduating at the same rates as their peers. By age 24, they'll make up a very small percentage of the STEM graduate population, representing less than 2.7% of African-American 24-year-olds and 2.2% of Hispanic 24-year-olds.

More minorities switch to another major when enrolled in a STEM program.

Sadly, even when under-represented minorities choose a STEM major, they're much less likely than white or Asian students to actually follow through and complete the degree. Among white students, completion rates in STEM programs hover around 70% but only 42% of African Americans and 49% of Hispanics will complete the same degree. A variety of reasons for this have been proposed, from lack of support to financial issues that force URM students to work while attending school, making it much harder to graduate from a highly demanding degree program.

Minorities experience large gaps in honors course enrollments.

Unfortunately, gaps in STEM education often begin long before students ever get to college. Research shows that minority students often don't have access to or don't take STEM-related honors and AP courses in high school. Take a higher level math course as an example: 7.5% of white students will take AP calculus, but only 3.4% of black students and 3.7% of Hispanic students. This gap in STEM achievement only grows as students move from high school into to higher education and eventually into the workplace.

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