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Examining Student Success: The Transition from H.S. to College of First-Year Engineering Students

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The Transition from H.S. to College of First-Year Engineering Students

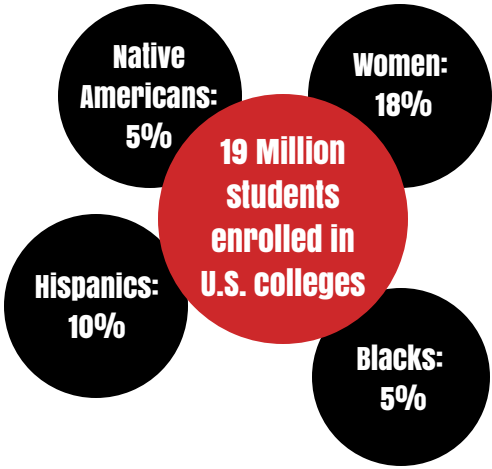
To improve retention and graduation rates, institutions have become interested in the experiences of first-year students

50%

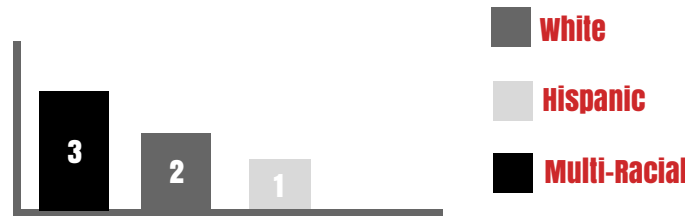
of all undergraduates who express initial intentions to major in STEM switch fields during their first or second year



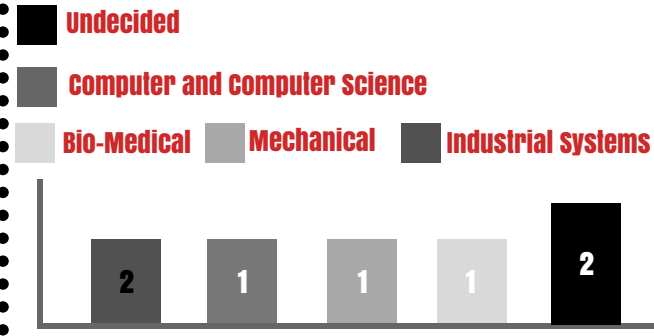
The purpose of the study was to understand the experiences of first-year engineering students during their transition from high school to college



6 full-time first-year students from a large predominantly white mid-western university were interviewed. The institution had a population of approximately 1,600 first-year engineering students



5 anticipated engineering majors were listed by participants



Pre-College Experiences of First-Year Engineering Students

Nearly all students enjoyed playing sports and video games

Walter, a male undecided engineering major said, "I played a lot of sports in high school, like my freshman and sophomore year I played football and freshman through senior year I played baseball and varsity baseball."

Challenges Students Faced while Transitioning from H.S. to college

All but one participant reported having to take difficult/time consuming courses

Whitney, a female industrial systems engineering major said, "Fall Quarter of engineering was hard, it was definitely a struggle for me... the drawings and the labs and...the breadboards and the circuitry was really hard. I've never worked with stuff like that...Math...is hard because I do not have the best professor this year so I'm basically teaching myself a lot of everything."

Reasons Why Students chose Engineering

All 6 participants mentioned having an interest in either math, science, or technology

Blake, a male mechanical engineering major said, "I'm really interested in technology and I'm very good in math. And...advisors [in a college preparatory program]...told me that I should look into a field of engineering."

Recommendation

Students' transition into college could be eased through help completing application material, more financial support, assistance with initial academic coursework, and advice on ways to manage the range of available academic and social opportunities in college.

