

Title: Exploring the Career Thinking of Native American Engineering Students (Research)

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Abstract:

Recent reports indicate that there are less than 1900 (0.6%) Native American undergraduate and graduate engineering students nationwide (Yoder, 2016). Although Native Americans are underrepresented in the field of engineering, there is very little research that explores contributing factors. The purpose of our exploratory research is to identify those barriers, supports, and personal strengths that Native American engineering students identify as being influential in developing their career interests and aspirations in engineering. Informed by research in Social Cognitive Career Theory (SCCT), we developed an on-line survey to assess the motivational variables that guide the career thinking and advancement of students preparing to enter the field of engineering. Instrumentation included Mapping Vocational Challenges (Lapan & Turner, 2000, 2009, 2014), Perceptions of Barriers (McWhirter, 1997), the Structured Career Development Inventory (Lapan & Turner, 2006), and the Career-Related Parent Support Scale (Turner et al., 2003), which were used to measure interests, goals, personal strengths and external supports.

Participants ($N=23$) consisted of graduate ($\approx 25\%$) and undergraduate ($\approx 75\%$) Native American engineering students. Their responses indicated that their most challenging barriers were financial (e.g., having expenses that are greater than income, and having to work while going to school just to make ends meet), and academic barriers (e.g., not sufficiently prepared academically to study engineering). A lack of career information, and perceptions of not fitting in were also identified as moderately challenging barriers. Students endorsed a number of personal strengths, with the strongest being confidence in their own communication and collaboration skills, and commitment to their academic and career preparation. The most notable external support to their engineering career development was their parents' encouragement to make good grades and to go to a school where they could prepare for a STEM career. Study results will be interpreted in light of theory, and recommendations for future research and practice will be provided.

Reference:

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