



An Investigation in to the Longitudinal Identity Trajectories of Women in STEM

R. Hughes, Director

Center for Integrating Research and Learning, National High Magnetic Field Laboratory;

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The author examined the longitudinal trajectories of eleven college-age women who had participated in a STEM informal education program during middle school. The program, identified only by a pseudonym in the study, was the MagLab's Sci-Girls program, an all-girls, two-week STEM summer camp that exposes young women to STEM professionals and relevant hands-on STEM activities. The goal of Sci-Girls is to increase interest in STEM fields and motivation to pursue STEM-related careers.

The participants whose identity trajectories are discussed in this study are those who responded to at least three of the following: a follow-up survey sent in 2009, 2012, and 2013 and/or interviews that were conducted in 2011.

Results indicated that the camp had a positive effect on participants' perceptions of scientists and their work. The results also indicate that all participants were still interested in STEM, but that half of these young women had chosen a college major that took them off the generally-accepted path toward a STEM career, i.e. a STEM major. This study provides a surprising addition to the literature in that it provides a view of STEM identity trajectories over time in which all but one of the young women studied found ways to assimilate a strong STEM identification into careers that are not typically identified as STEM fields, including early childhood education and music therapy.

The study raises the question whether individuals in non-STEM fields can insert STEM into these fields and, thus, nucleate changes in perception about STEM careers. A broader view away from the concept of a limited number of paths toward STEM careers and toward a realization of personal identification with STEM fields may help improve the ways in which informal STEM education programs can address STEM identify and, perhaps, the underrepresentation of women in STEM fields.

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