

Staying In Science

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Staying in Science:

Examining the Pathways of
Underrepresented Youth
Mentored in Research



The study will contribute to a broader understanding of the pathways of STEM-interested high school students from underrepresented groups who plan to pursue STEM college majors and careers. Because the Science Research Mentoring Program (SRMP) serves youth from communities typically underrepresented in STEM careers, the study can illuminate key supports and barriers especially for high-potential African American and Hispanic youth and youth from lower-income families.

By taking a “pathways” perspective, **we will address the multiple contexts, factors and influences at play in youth development**, and more accurately document the complexity and variability of STEM pursuits themselves. Ultimately, the results of the study can help practitioners design more inclusive and equitable STEM learning experiences and supports that capitalize on promising students’ interests and help them achieve their fullest potential.

Staying in Science is a longitudinal study of the STEM pathways of approximately 1270 New York City youth who show promise in science.

The study, led by the American Museum of Natural History with partners SRI International and the City University of New York (CUNY), investigates factors that may support youth’s persistence in STEM college majors and careers.

The study centers on participants and alumni of an intensive, two-year mentored research experience in which students complete college-level coursework outside of school and work alongside scientists at one of 20 participating institutions. Data for the study includes annual student and alumni surveys, annual social network surveys, secondary public school data from the NYC Department of Education and CUNY, and student case studies generated through interviews with alumni and mentors.



Responding to calls for more **longitudinal research with a learning ecosystems perspective**, this research combines longitudinal social network and survey analysis with analysis of matched student data from New York City Public Schools records. The **social network analysis** uncovers relational features associated with persistence that may be critical for supporting underrepresented youth, for whom STEM role models and cultural brokers provide an otherwise absent sense of belonging to, and identity in, STEM. The matched **public school data** enables us to examine relationships between in-school achievement and out-of-school STEM experiences, and to compare program participants to similar non-participant peers.

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