Jacob Castaneda* (jacob@artofproblemsolving.org). Early Access to Advanced Mathematics for Underrepresented Students.

Across almost every field in the mathematical sciences, people from low-income and minority backgrounds are dramatically underrepresented, a gap that traces back to K-12 education. A wealth of programs exist to help students study mathematics deeply during these formative years - from summer programs to math circles to after-school programs - but most programs have limited outreach and support for reaching underserved students. In an attempt to shed light on strategies that foster inclusion in mathematics at the pre-collegiate level, we will share the experiences of Bridge to Enter Advanced Mathematics (BEAM), a program that has been operating in New York City since 2011 and Los Angeles since 2018. BEAM reaches hundreds of students each year through summer programs, weekend programs, and mentoring from 6th grade through 12th grade. Curriculum includes math ranging from logical reasoning through number theory, combinatorics, and group theory, in addition to college access work and educational advising. We will share further information about our program’s strategies and outcomes. It is our hope that others can find replicable program elements, and that our experiences can strengthen the broader ecosystem of support for marginalized students. (Received September 17, 2019)