Daniel Zaharopol* (danz@beammath.org) and Ruthi Hortsch (ruthi@beammath.org). Advanced, underserved students: strategies for program design.

A wealth of programs exist to help K-12 students study advanced mathematics. From summer programs to math circles to after-school programs, these opportunities give access to abstract mathematics and problem-solving skills. However, most programs have limited outreach and support for reaching underserved students.

When working with students who have not received this invitation into mathematics, what program design features help them make the most progress and feel a part of the community? 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 is opening in Los Angeles beginning 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. Ultimately, BEAM's goal is simple: give its students access to the same resources as more affluent peers. (Received September 05, 2017)