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Sarah A. Williams* (sawilliams@math.ucdavis.edu). *Strategies for Inclusion in the UC Davis Math Modeling Experience for Undergraduates and High School Students*. Preliminary report.

The Math Modeling Experience (MME) for undergraduates and high school students is now in its third year at the University of California, Davis. Our primary goal is to enrich students' interest in mathematics through challenging, hands-on problems, culminating in the Mathematical Contest in Modeling. Another goal of the MME is to host an inclusive mathematical community; in particular, we have encouraged participation of high school girls and students from under-served schools. This year, MME high school students (35) are nearly 50% female and come from schools where free-or-reduced school lunch covers from 8% to 83% of the student body. MME undergraduates (9) mentor the high school students and enroll in an upper-division seminar course in mathematical modeling. The program attracts both students preparing to teach high school math and students preparing for graduate school in math or science, and this year over 50% are women. This talk will give an overview of the MME, emphasizing strategies we use to engage this group of students whose mathematical sophistication spans a wide range (e.g., posing multiple math modeling problems based on a single real-world scenario), and recruiting strategies that have proven successful (e.g., soliciting teacher/professor nominations). (Received September 26, 2006)