Four university mathematics departments are part of an initiative to improve undergraduate mathematics teaching and learning by developing and teaching courses using inquiry-based learning (IBL) approaches. We are collaborating with these departments to study the outcomes for students who take these IBL courses, including students’ growth in mathematical learning and thinking, changes in attitudes, confidence, or beliefs about mathematics, and their subsequent educational and career choices. The IBL courses being studied primarily address two important populations: mathematics, science, and engineering majors taking courses that introduce them to proof and higher mathematical thinking; and pre-service teachers at the elementary and secondary levels who are taking courses focused on the mathematics they will need for teaching. We will describe the goals and design of the study and will present preliminary findings as available from data gathered in the earliest stages of the study, which began in 2008. The study is part of the Inquiry-Based Learning Mathematics Project and is undertaken with the support of the Educational Advancement Foundation. (Received September 16, 2008)