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Rebecca H McGraw* (rmcgraw@math.arizona.edu), 617 N. Santa Rita Ave., Tucson, AZ 85721. *From K12 to the University and Back Again: Preparing Future Teachers with an Eye to the Common Core*. Preliminary report.

Prominent in the Common Core Standards for Mathematics is a transformational approach to foundational topics in middle and high school geometry. Unfortunately, university students, including those preparing to become teachers, often have minimal previous exposure to transformations, to transformation-based definitions of congruence and similarity, and to proving theorems through transformations. In addition, middle/high school textbooks may not provide beginning teachers with enough guidance and support. It is incumbent upon those of us who teach future teachers to find effective methods for preparing our students.

The author is the instructor of an undergraduate, Euclidean geometry course that is required of future teachers at the author's institution. Through cycles of development and implementation over the past three years, teaching strategies and lesson plans have been developed in an effort to (1) address gaps in the knowledge of incoming students, (2) combine study of transformations with attention to a wider range of topics, and (3) prepare future teachers to go "back again" to the K12 classroom. Foci of lessons include development of definitions, properties of transformations, triangle congruence, and properties of quadrilaterals. (Received February 11, 2014)