David C. Royster* (droyster@nsf.gov), Elementary, Secondary, and Informal Education, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230. The Pedagogical Content Knowledge of Secondary Mathematics Teachers.

What is it that we teach our future secondary mathematics teachers that prepares them to teach Algebra I, Geometry and Algebra II? Do our students make the connections between the content knowledge taught in college in Modern Algebra and Modern Geometry courses and the mathematics that they will teach in high school? Is there a way to teach the mathematical content at the university level that will prepare them "directly" for the courses that they will teach? We will take a look at one approach in Algebra and one approach in Geometry at teaching the mathematics that influences the mathematics that they teach. (Received August 05, 2005)