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Karen D King* (kking@nsf.gov), 4201 Wilson Blvd., Suite 885, Arlington, VA 22230. *Why a mathematics degree? Implications of a Mathematics Major for Secondary Teachers.*

The expectation to be considered a highly qualified secondary mathematics teacher in the US is that a teacher should have a major in mathematics. Yet there has traditionally been weak evidence that having more coursework in mathematics is not associated with improved student achievement. In this talk, I discuss possible reasons that this disconnect between research and our natural instincts about the need for a major by describing the implications of mathematical knowledge for teaching for secondary teachers. While Ball and colleagues have described mathematical knowledge for teaching for elementary teachers and established relationships between this knowledge and student achievement, much less work has been done for secondary teachers. I will describe the ways in which the definition of mathematical knowledge for teaching might be conceptualized for secondary teachers and the implications for the important aspects of the mathematics major that would support such knowledge. (Received September 21, 2016)