

1014-D1-1493      **S. Rosenberg\*** (sr@math.bu.edu), Dept. of Mathematics and Statistics, Boston University, Boston, MA 02215, and **M. Spillane** and **D. Wulf**. *Fostering Mathematical Research by Teachers*.

Focus on Mathematics is an NSF-funded Mathematics and Science Partnership committed to building a community of mathematicians, teachers and educators, working together to help students and teachers investigate fundamental mathematics content relevant to K-12 education. Study groups in which teachers and mathematicians engage in intellectually challenging mathematics are key to this work. In one study group, comprised of high school teachers and a differential geometer, teachers' questions from high school geometry led to research in geometry and number theory extending research-level results posted on arXiv.org. In this talk, we (a mathematician and two study group teachers) describe our experiences and present some of our mathematical results. (Received September 28, 2005)