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**Y. Kathy Lin\*** (ywklin@gmail.com). *Factors impacting the pursuit of mathematics for female PhD students.*

One approach to increasing the number of women in advanced mathematics is by understanding what has worked for successful women; such an understanding could contribute to the development of programs and experiences which can help women to want to and be able to pursue advanced mathematics. This qualitative study examined the factors that six women in a top-ranked mathematics PhD program believe have motivated and enabled them to pursue mathematics. Analysis of in-depth interviews with these women found that most women had a combination of personal communities, academic communities, and academic experiences which influenced their pursuit of mathematics. Each of these categories impacted the women in several ways. For example, most of the women felt that academic communities provided them with not only academic support, but also like-minded peers who validated their interests, inside information about the experiences top mathematics students are expected to have, and exposure to older students and mathematicians whose day-to-day lives helped the women understand what it means to be a mathematician both personally and professionally. These results and others will be discussed, with an emphasis on replicable experiences which the women found to be particularly influential. (Received September 13, 2008)