The search for mathematicians and mathematics educators among the populations that are so under-represented in the scientific community often seems to be a daunting task. The need for more diversity is evident in the K-12 community, on college and university mathematics faculties, and across the scientific workforce. Yet high school students, college and university undergraduates from the underrepresented groups get little encouragement and support to pursue the study of mathematics. At the graduate level, still too few earn doctorate degrees in the mathematical sciences. I will present a few strategies that have been shown to increase the numbers, some of which arise out of my experiences as faculty and an administrator in a Historically Black College. Other strategies result from the insights gained over more than a dozen years as co-director of the nationally recognized EDGE (Enhancing Diversity in Graduate Education) Program, a program that supports women in completing doctoral degrees. This presentation will call on the listeners to help in the identification and implementation of strategies that will increase the number of mathematical scientists in the future from underrepresented groups. (Received: August 31, 2011)