The University of California, Berkeley’s Professional Development Program (PDP) was founded in 1974 to promote academic excellence and diversity for underrepresented students in mathematics, engineering, and the sciences throughout the educational pipeline from middle school through graduate school. To determine whether the program has an effect on the academic outcomes for students taking calculus at U.C. Berkeley, we use a variety of matching and other statistical techniques designed to compensate for a lack of a randomly assigned, controlled experimental design. In the first section, we describe the various ways that students at Berkeley are taught calculus. Next, we lay out our four hypotheses as to why students in PDP might perform better than other students. In the third section, we describe our data set and present summary statistics. We use a matching technique to compare PDP students to students in other programs with similar (ideally identical) characteristics in the fourth section. In the fifth section, we compare our matching results to those from traditional analyses. Finally, we conclude that PDP is effective in raising performance in calculus and discuss each of our hypotheses about why it is effective. (Received September 20, 2007)