As the United States science, technology, engineering, and mathematics (STEM) workforce continues to grow faster than the overall workforce, the need for college-trained STEM workers continues to increase; moreover, the percentage of African Americans in these positions also needs to rise. Numerous intervention programs, geared towards increasing the number of underrepresented minorities in STEM, were developed to increase undergraduate retention and attainment rates, graduate degree attainment rates, and the rate at which students were entering the STEM workforce. Although many of these programs have conducted small self-studies, few have undergone extensive external program evaluation. As millions of dollars continue to pour into these programs, evaluation of their effectiveness at increasing the numbers of African Americans in STEM needs to be addressed. Specifically, program components that contribute more towards increasing those numbers need to be identified. An evaluation model that uses qualitative analysis to build upon a quantitative analysis base, utilizing logistic regression, will be explored. (Received September 14, 2008)