The Catalyst Program of the Department of Geological Sciences at California State University Northridge has been developed by four faculty members who were the recipients of a three-year award (2002-2005) from the National Science Foundation. The goal of the program is to increase minority participation and success in the geosciences. The program seeks to enrich the educational experience by introducing students at all levels to research in the geosciences and to decrease obstacles that affect academic success. Both these goals are largely achieved by the formation of integrated high school, undergraduate, and graduate research groups, which also provide fulfilling and successful peer mentorship. The Catalyst Program provides significant financial support to participants to allow them to focus their time on their education. New participants first complete a specially designed course that introduces them to peer-mentoring, collaborative learning, and geological research. Students of all experience levels then become members of research teams, which deepens academic and research skills as well as peer-mentor relationships. The program was highly successful in its inaugural year. To date, undergraduates and graduate students have coauthored six abstracts at professional meetings. High-school students gained first hand experience of a college course and geologic research.