The absence of women from STEM education and careers affects more than the women; it is a missed opportunity for those fields. Through the CalWomenTech Project, the Institute for Women in Trades, Technology and Science (IWITTS) assisted California community colleges in increasing the number of women enrolled in STEM programs in which they were underrepresented and in retaining them. Six of seven community colleges had increases in female enrollment in introductory technology courses targeted by the CalWomenTech Project. Five of the colleges achieved substantive increases ranging from 21.8% to 46.3% in introductory courses. Four colleges increased both female and male completion rates substantially, and a total of six colleges increased the retention rate of male students. The improved retention rates of male STEM students, was an unanticipated Project outcome that IWITTS attributes to classroom and lab strategies employed by instructors that positively impacted all students. The CalWomenTech Project was highlighted by NSF in 2009 for demonstrating significant achievement and program effectiveness. Project strategies and results were also featured in a cover story written by the CalWomenTech Project’s Principal Investigator—Donna Milgram—in The Technology and Engineering Teacher magazine from the International Technology & Engineering Education Association (ITEEA).

The CalWomenTech Project utilized a top-down leadership team approach that has been employed successfully in three of IWITTS’ multi-site national projects. IWITTS’s leadership team model integrates STEM strategies to recruit women into the college’s mainstream practices rather than providing a separate parallel support structure for the women themselves. All of the CalWomenTech community colleges had a key leader, a co-leader, and a ten member leadership team. The key leader, in many cases, was the dean or department chair that oversaw the technology programs. The co-leader was often a key instructor. The other members of the leadership team included instructors, counselors, outreach and support services staff. IWITTS provided leadership team members and instructors with in-person training on recruiting and retaining female students and facilitated their strategic plan development. The leadership team model engaged key leaders in the college and instructors in working together to increase the number of women in STEM programs, so that changes resulting from the CalWomenTech Project would be institutionalized and persist beyond the life of the Project.

The CalWomenTech Project is one of very few projects focused specifically on gender in community college STEM programs that has documented actual increases in female enrollment and completion via its external evaluators. The results, strategies, and resources from the CalWomenTech Project can potentially have a high impact on best practices for increasing women in STEM in two-year colleges nationwide. IWITTS estimates that over the course of the CalWomenTech Project the organization reached well over 2,600 educators nationwide with 25 conference presentations, 42 in-person trainings, and 19 free webinars on CalWomenTech strategies and that it made over 187,756 impressions electronically through the CalWomenTech Proven Practices Collection (iwitts.org/proven-practices), e-newsletters, Facebook posts, and other social media strategies. Four peer-reviewed papers on the CalWomenTech Project were also accepted for publication in the conference proceedings of the American Society for Engineering Education (ASEE) Annual Conference and the Women in Engineering Proactive Network (WEPAN) National Conference. As the CalWomenTech Project came to a close, IWITTS began work on the new NSF-funded CalWomenTech Scale Up Project to expand the important work of the original CalWomenTech Project by disseminating the Project’s successful results, strategies, and resources to an even wider community college audience around the United States. In April 2012, NSF featured the new CalWomenTech Scale Up Project in an article in the “Discoveries” section of their website – a section dedicated to describing advances and discoveries made with NSF support.

The CalWomenTech Project was funded by The Program for Research on Gender in Science and Engineering from The National Science Foundation - Grant no. 0533564. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the NSF.