

DESCRIPTION OF STUDY

“Proven Practices for Recruiting Women to STEM Careers in ATE Programs” is a three-year special project funded by the National Science Foundation (NSF, DUE # 0501971). The purpose of this study, which began September 1, 2005 and continues through August 31, 2008, is to investigate the ways in which educational institutions awarded ATE grants recruit women into their science, technology, engineering and mathematics (STEM) programs.

The project has three goals.

1. To advance knowledge on career theories, gender and ethnicity as they apply to understanding women’s academic and STEM career choices.

A number of career choice and development theories were explored during the first year of the project (2005-2006), and John L. Holland’s person-environment interaction theory, Donald E. Super’s life-space, life-span theory, and Robert W. Lent, Steven D. Brown and Gail Hackett’s social cognitive career theory (SCCT) were investigated in-depth. The results of this investigation are available on this website in the document [Three Theories of Career Development and Choice](#). Similarly, the document [Theory and Practice in Recruiting Women for STEM Careers](#), also available on this website, includes a discussion of the three career theories and gender theories as they apply to the recruitment of women. Review of literature on gender, the effects of race and/or ethnicity on recruitment, and reports on studies evaluating recruitment practices continues.

2. To describe and document practices in use by centers and projects funded by NSF’s Advanced Technology Education (ATE) Program for recruiting female students.

Two types of information on recruitment practices are being collected during the second (2006-2007) and third (2007-2008) years of the project: qualitative in-depth information from site visits; and an [online survey](#) of STEM recruitment activities targeting females at the colleges of 202 ATE investigators whose ATE programs were in operation as of June 30, 2006 and/or during the following academic year (2006-2007). Data collection for the survey began February 11, 2008 and ended February 25, 2008. Data analysis is underway. Additional information about the [survey](#) is available on this website.

The ATE-funded programs included in the survey sample were also eligible for in-depth site visits. The following criteria were used to identify programs for visits:

1. Information about the program indicated that the site was involved in student recruitment activities aligned with the mission/purpose of our grant.
2. Maturity of the program—that is, the program had been in operation for at least one year.
3. Located in different areas of the United States in order to take into account the influence of geographic location.
4. Ethnic and racial representation in the host college’s local area.
5. A mix of ATE projects and centers. Projects focus on specific aspects of technician education. Centers have broader missions. For more information

DESCRIPTION OF STUDY

on ATE projects and centers, go to www.atecenters.org and see *ATE Centers Impact 2006-2007*, edited by Madeline Patton (2006, Tempe, AZ: Maricopa Community Colleges).

Six ATE programs (three ATE projects and three ATE centers) were identified as possible sites to visit. Three of the identified sites are located on the West Coast, and the others are located in the Southwest, Midwest, and South. Almost all of the sites include a mix of students representing various ethnicities and racial groups. One site serves Native Americans nation-wide, another is located in a region heavily populated by Hispanics, and a third serves a large number of African-Americans.

For one site, written documents and a short interview with two of the principals constitute the bulk of our information. For five programs, project staff spent two to two and a half days at each site conducting focus groups and interviews with women students, administrative staff, and faculty, and making 15 -20 minute visits to STEM classes to ask both male and female students about influences on their choice of college, majors and recruitment activities in which they participated before entering the program. At one site, we were also able to conduct a focus group on STEM recruitment with representatives of ten tribal colleges; and, at another, conduct a focus group on recruiting women with the national partners of one ATE center. A review of written and website information was conducted for each site prior to a visit. This review served as the basis on which to develop tailored questions for focus groups and interviews at the site. Additionally, photographs were taken at each site and copies of recruitment brochures, flyers, DVDs, posters and other materials were collected.

Project staff is now in the process of transcribing recordings from the focus groups and interviews, and processing and analyzing collected materials. A portrait of the recruitment activities of the host college relating to STEM fields, and student, faculty and staff views on these programs and on the recruitment of women to STEM fields in general are being prepared for each site. These portraits and the results of the survey will then be analyzed to describe and document existing strategies for recruiting women into STEM programs, and to identify attitudes and behaviors related to choosing and maintaining a career in science, technology, engineering and mathematics.

3. To combine information from literature reviews and other gender research projects with collected data, and pull together a constellation of pragmatic practices for recruitment of females into educational programs that would prepare women to enter STEM careers.

Results from the project's data collection activities will be compared with published findings on the effectiveness of recruitment strategies in attracting women into STEM fields. These results will then be reviewed in relationship to existing theoretical literature on career development and on the effects of gender and ethnicity on career choice. The final outcome of the project will be a set of pragmatic practices that educational institutions can use to enhance their enrollment of women in STEM

DESCRIPTION OF STUDY

programs, and suggestions on ways to tailor existing recruitment strategies and/or develop new ones that appeal to women.