

## FUNDING SOURCES FOR PILOT PROGRAMS

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### INTRODUCTION

Recruiting and retaining women in engineering are important goals for academic institutions [1]. Studies conducted by the National Science Foundation show that there has been a significant increase in the proportion of american women who enter college in math based fields such as science and engineering. However, they make up less than one-sixth of the graduates at the bachelor's degree level. Only 8 percent of undergraduate engineering students are women and only 13.2 percent of full time graduate enrollment in science and engineering are women [2]. To asses the problem of women in engineering, we need to assess the climate in the classroom and in the college. An insight into these issues is necessary to provide a supportive and encouraging atmosphere sensitive to the needs of women students. In response to the need for providing such an environment for their women students, many academic institutions have established Women in Engineering (WIE) Programs aimed at meeting the particular needs of the institution. One of the most important factors in starting a WIE program or to sustain an established program is the targeting of appropriate available funding. This paper will highlight some of the funding resources available for pilot programs.

## PILOT PROGRAMS

Conducting pilot programs for women in engineering is in many instances a useful and important first step toward establishing a WIE program. It is imperative that a study be conducted to assess the specific needs of the students at the institution. Various survey instruments are available and these can be modified to suit one's specific needs. Pilot programs would include setting up an office for counseling/mentoring, providing tutoring, starting a newsletter, scheduling regular meetings with women students etc. Through these programs, the women students can be encouraged to explore various career options available to them, determine how to obtain financial assistance through a variety of available scholarships and also realize the importance of networking and be aware of technical and professional activities at the local and national level. The programs could be expanded to include interaction with local community college students and to conducting faculty workshops.

## FUNDING RESOURCES

Funding for pilot programs is available through national agencies, professional organizations and large industrial corporations and local companies.

### INDUSTRIAL CORPORATIONS

Industrial corporations offer support for mentoring programs for women, career guidance programs and scholarships at all levels in the undergraduate program. A few examples of such corporations are the Aluminum Company of America (ALCOA), AT&T Bell Laboratories and Corning Inc. ALCOA offers support for pre-college programs,

large number of scholarships for students and faculty incentive awards at various field locations. In addition, ALCOA also provides support for mentoring programs. AT&T Bell Laboratories provide funding for summer programs and offer scholarships/fellowships for women students. Corning Inc. provides support for mentoring/counseling.

### PROFESSIONAL ORGANIZATIONS

Professional organizations are a tremendous resource for providing networking and support for pilot programs. Most national professional organizations have strong and active local sections that can provide career guidance, volunteers for different projects undertaken and financial assistance in the form of sponsorship and scholarships.

### LOCAL COMPANIES/UNIVERSITY

One of the best sources for sponsorship of pilot programs are the local companies. These companies can be approached either through the Dean's office, members of the Advisory Board to the college or through personal contact. Companies run by alumni of the university or those operated by women should definitely be approached for financial support for the programs.

Examples of funding sources at the University level include the University Foundation, the Office of the Provost and the Alumni office.

### NATIONAL

At the national level agencies such as the National Science Foundation (NSF), Department of Energy, The American Association of University Women offer annual financial awards for career enhancement and for graduate study. In addition, scholarships and awards are available through



private foundations such as the Alfred Sloan Foundation, the 3M Foundation the Lilly Foundation etc.

The WEPAN Action Group on Research, Evaluation and Dissemination (AGRED) has put together a resource book for Classroom Climate which includes a listing of funding resources for students and faculty [3].

### REFERENCES

1. The urgency of outreach to under-represented minorities and women in engineering education, W. B. Street, Issues in Engineering Education, 1 (3), Dec. 1992.
2. Ferment: Yes, Progress: Maybe, Change: Slow, Betty Vetter, MOSAIC, 23 (3), Fall 1992.
3. Classroom climate resource book, E. Wadsworth, WEPAN Action Group on Research, Evaluation and Dissemination (AGRED), June 1994.