

FacultyForTheFuture.org

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Abstract

FacultyForTheFuture.org is a website dedicated to linking a diverse pool of women and underrepresented minority candidates from engineering, science and business with faculty and research positions across the country. The major components of the website are described including lessons learned and the project evaluation. FacultyForTheFuture.org is funded by the GE Foundation and administered by WEPAN.

Project Description

FacultyForTheFuture.org (figure 1) is a database driven website designed to provide visibility for underrepresented candidates for academic positions in engineering, science and business and to create a way for academic search committees and employers to identify outstanding people. The primary goal is to increase the number of women and minority faculty members in engineering, science and business schools and colleges. The project is an outgrowth of the GE

Foundation's 10-year Faculty for the Future (FFF) initiative (1990-2000) designed to increase the numbers of women and minority men in faculty positions in the US.



Figure 1: www.facultyforthefuture.org

In 2001, WEPAN and its collaborators¹ received a 3-year grant from the GE Foundation to provide support services to students who remained in the FFF pool. A precursor of WEPAN's FacultyforTheFuture.org site had been the development by Penn State of a searchable website designed to provide job networking among GE FFF institutions.

While several websites cater to academic job searches, FacultyForTheFuture.org is unique in its focus on underrepresented groups in engineering, science and business (carrying on the focus of the original GE Foundation initiative) and because it is free with no current charge for either individuals or institutions.

The need for the focus on underrepresented groups is well documented. The representation of female faculty of all ethnicities in engineering and computer science in the US is extraordinarily low. The most recent data (CPST, 2001) indicate that female engineering faculty who have doctorate degrees employed at four-year colleges is at a level of 8.4%, an increase of 1.9% since 1997 (tenured and non-tenured, tenure track). The number of doctoral engineers employed as postsecondary faculty in two and four-year colleges is so small for Black, non-Hispanic, Hispanic and Native American women that there are blanks in the report indicating less than 500 people. For women, the data at the doctoral level has been on a slow but upward trend since 1998, from 810 degrees granted to 1,040 (17.3%) in 2003. African Americans and Hispanics received 1.6% (97) and 1.8% (107) Ph.D. degrees in engineering in 2003, respectively. This pool represents the potential source of college faculty. The need for female faculty in computer science is also compelling. In 2002, 97 women graduated with doctorate degrees in computer science. African Americans, Hispanics, and Native Americans received 17, 14, and 2 doctoral degrees in computer science respectively. The pool of doctoral degree recipients to draw on for a diverse faculty in computer science is extremely small (CPST, 2004).

FacultyForTheFuture.org Resume and Position Database

FacultyForTheFuture.org provides access to potential candidates and positions and offers a number of support activities (described below). The heart of the project is the searchable database which provides easy access to 1) a broad range of candidates for faculty and other academic positions and 2) position listings from institutions throughout the country. To access, participants simply register. Anyone may register and complete the searchable resume webform or upload position postings. Individuals registering to search resumes must be legitimate faculty, administrators or potential employers. Features include:

- Resumes searchable by key words, disciplines, and a number of other criteria by registered users and easily edited by the resume owner. Resume owner names are blinded in the initial resume.

¹ WEPAN would like to acknowledge the contributions of its collaborators: Barbara Bogue and Syed Karimushan, Penn State University; Christine Cunningham, Boston Museum of Science; Jennifer Dockter, MentorNet; Susan Staffin Metz, Stevens Institute of Technology; and Jan Rinehart and Natela Ostrovskaya, Texas A&M University for their effort in the development and implementation of FacultyForTheFuture.org.

- Positions posted and searchable by field. Positions are date sensitive.
- Automatic email notification to candidate registrants when relevant positions are posted.

At the time of writing, there were 430 candidates registered, 322 institutions and 100 academic positions. The site registers approximately 600 hits per day.

Topic Based E-Forum and Academic E-Mentoring

MentorNet, Inc. partnered with WEPAN to develop the FacultyForTheFuture.org E-Forum. The E-Forum was moderated by faculty members and industry professionals in engineering, science and business and offered an opportunity for students and mentors to come together in a safe and supportive environment to discuss issues in their fields, share experiences, and ask and answer questions. The E-Forum consisted of six groups including: *How to Choose a Graduate Program: Is a Faculty Career for Me?*; *Balancing Work, Family and Community: Now and as a Faculty Member*; *Pros and Cons of Post Docs: On the Way to Faculty Careers*; *Surviving Graduate School*; *Job Search: Starting Your Career in Academe*; and *Returning to Academe: Making the Transition*.

The recruitment process for E-Forum moderators was quite successful but the interest among students was not consistent enough to continue this effort. After surveying the student users of FacultyForTheFuture.org, it became clear that they were more interested in a one-on-one academic e-mentoring opportunity. Therefore, MentorNet refocused its resources and provided IT development support for one-on-one e-mentoring relationships, including online information, participant profiles linked to a database that enabled bi-directional matching based on participants' backgrounds, interests, and expressed preferences, and ongoing coaching for both protégés and mentors. The program is now integrated into MentorNet's existing systems and programs. A National Science Foundation grant, obtained by MentorNet, enhanced the program by providing an opportunity for early-career faculty members to be mentored by tenured faculty members through the organizational infrastructure MentorNet provides.

Career Development and Information Components

Three information components were developed for FacultyfortheFuture.org focused on exploring graduate school and faculty career opportunities. The first targets undergraduate students in math, physics, engineering and business entitled, *Why Go to Graduate School? Why Choose an Academic Career?*, targets graduate students in specific disciplines. The third component is relevant to faculty and faculty advisors and is entitled, *Recommendations from Faculty on Mentoring Underrepresented*

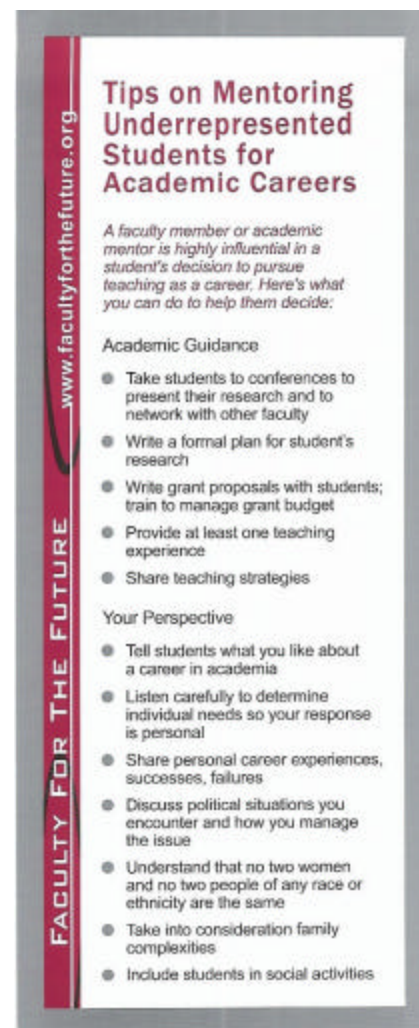


Figure 2: FacultyfortheFuture.org bookmarks.

Students to Academic Careers. A glossy bookmark was created from information contained in the latter component. (Figure 2). Nearly 15,000 bookmarks, *Tips on Mentoring Underrepresented Students for Academic Careers*, were mailed to deans of engineering, science and business schools, and women in engineering and minority in engineering program administrators for distribution to their faculty. They are also available through the website.

Marketing

A significant marketing effort was required to engage faculty and students in FacultyForTheFuture.org. The following marketing strategies were successful in increasing traffic to the site: banner ads on the WEPAN and MentorNet websites; a \$250 cash incentive program for students to post resumes; emails posted on listservs of eight national organizations; ads placed in ASEE Prism magazine and the ASEE Dean's Handbook; and direct mailings including the Mentoring Tips Bookmark, FacultyFortheFuture.org brochures and posters.

Evaluation

Data from faculty and student users were obtained in years two and three through on-line surveys regarding the use, value and ease of use of FacultyForTheFuture.org. All areas improved annually.

Assessment

The FacultyForTheFuture.org Year-End Student Survey revealed that a majority of the respondents rated the website highly and found it easy to use. The database of registered students (269) was invited to complete the on-line survey and 73 responded. Of the users who responded, 67% posted a resume on the website. After posting their resumes, 25% of respondents were contacted for a job by somebody who saw their resume on the FacultyForTheFuture.org. In addition to allowing users to post resumes, the website also had job postings that students could search. Of the survey respondents, 24% applied for jobs through the website. Those who applied for a position through the website applied for an average of one position.

Student respondents were also asked which website features they used. The most used feature was the search for positions, which was used by 80% of respondents; followed closely by posting or updating a resume (79%) and updating profiles (74%). The *Why Choose an Academic Career?* section was used by 50% and *Why Go to Graduate School?* by 23% of respondents.

When asked how difficult it was to navigate FacultyForTheFuture.org, 92% of respondents rated it *slightly easy, moderately easy, or very easy*. When asked to rate how valuable they found the website, 18% of respondents found it *greatly* valuable and 43% found the website *moderately* valuable. In addition, 33% of the respondents said that they would *definitely* and 56% of respondents said that they would *probably* recommend FacultyForTheFuture.org to a peer.

The FacultyForTheFuture.org Year-End Faculty Survey showed that most respondents rated FacultyfortheFuture.org highly and found it easy to use. Of the 188 registered faculty who were contacted, 63 people responded to the survey (33.5% response rate). Of the faculty who

responded, 19% posted a position on FacultyForTheFuture.org. Of the people who had posted a position on the website, 29% received applications. As well as posting jobs, faculty members were also able to look at resumes that were posted on the website. Of the respondents, 8% contacted somebody whose resume they viewed on the website.

Faculty respondents were also asked which of the website features they used. Updating profiles was used by 42% of the respondents and was the feature most often used. This was followed with the resume search, which 39% respondents used, and *Recommendations from Faculty on Mentoring Underrepresented Students to Academic Careers*, which 9% used.

The faculty respondents also found the website easy to use and navigate, with 95% of respondents saying that they found the FFF website *slightly easy*, *moderately easy*, or *very easy* to use. Faculty respondents were generally very positive on the value of the website. Of the respondents, 19% found the website *greatly* valuable and 51% found the website *moderately* valuable. Respondents were also generally positive when if they would recommend the FacultyForTheFuture.org to a colleague. A total of 60% said that they *probably* would, and 28% of people said that they *definitely* would.

The Future of FacultyForTheFuture.org

Three years after the official launch, FacultyForTheFuture.org shows great promise as a tool to connect underrepresented candidates with faculty and other academic positions. WEPAN received an additional year of funding from the GE Foundation to continue website development and to identify tangible strategies to sustain the project after grant funding ends. To this end, WEPAN is in the process of talking with potential partners and collaborators and is optimistic that FacultyForTheFuture.org will continue operations successfully.

References Cited

Commission on Professionals in Science and Technology (2004). Data derived from Engineering Workforce Commission of the American Association of Engineering Societies, Inc. Engineering and Technology Degrees 1990-2003. Washington, D.C.

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