

TAP INTO THE TECHNICAL YOU: INDUSTRY AID IN RETAINING WOMEN IN ENGINEERING DEGREE PROGRAMS

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Abstract - *In the fall of 2001, Schlumberger hosted a two-day event for women in university technical degree programs. One aim of the forum was to encourage female students to continue studying in technical fields. Professional women from companies like Schlumberger, Dell, Compaq, and ExxonMobil led sessions focused on various aspects of career management for women. Feedback from the event showed a genuine need to export our format so that more women can benefit from similar experiences.*

PURPOSE

Why do women drop out of technical and engineering degrees? What can we do to help? These were among the questions that a team from Schlumberger in Austin, Texas asked Tricia Berry, SWE Student Regional Coordinator (and WEP Director at UT Austin). Ms Berry indicated several key areas in which support was lacking: career guidance for women interested in technology and contact with industry female engineer role models. The Schlumberger team decided to host an event, bringing together 135 women students from engineering and technical disciplines attending universities throughout the US. The aim: to give students an opportunity to learn more about possible careers in engineering and software, to hear what actual employers are looking for from prospective technical employees and what kind of career options are now available, to develop relationships with other students, and to interact with experienced technical women already in the job market. The event, held over a weekend in September, was planned to give students not only maximum exposure to information and 'mentors', but also to provide a strong sense of community and unity for the women, providing them with added motivation to achieve their potential.

Schedule Overview:

Day 1, Friday evening

Welcome Dinner followed by Panel Discussion and Q&A session

Day 2, Saturday

Introduction
Presentation on "The Challenges to Women in the Workplace"
Breakout session #1
Lunch
Presentation on "Why Women Make Better Leaders"

Breakout session #2
Wrap-up discussion
Final ice breaker and dinner

Day 3, Sunday morning

Breakfast and head home

PARTICIPANTS

We targeted women in technical degree programs in their second and third year of study. Studies had shown that the women students were apt to drop out of the technical degree programs during this timeframe of their education, and we wanted to do whatever we could to stop this "pipeline leakage." We had initially planned on inviting women from 3 Texas area universities with strong engineering/technical programs: University of Texas at Austin, Texas A&M University, and Rice University. We worked with Women in Engineering Program Directors and SWE organizations on each of these campuses, as well as with professors at each school, to help design the best way to target our invitees.

Once the web site was announced, however, we found that the "old girls' network" was in full force. We began getting registration/attendance requests from women students all over the United States. When we contacted some of the students to understand how they even knew of the event, they told us that "a girl friend from high school" had told them about it. This was just great. We quickly expanded our target set of universities and ultimately had attendees from UT Austin, Texas A&M, Rice, Georgia Tech, MIT, UC Berkeley, and CMU. Schlumberger provided and paid for all accommodations and all of the travel arrangements, using a combination of airlines and chartered busses.

For the Schlumberger part of the event, we selected a group of Schlumberger female engineers from around the world to participate as leaders. The Schlumberger employees were just as excited as the students to be invited to participate. We targeted women who had "interesting" careers after receiving their technical degrees---some were now in product management roles, some in technical roles, some were in personnel-related roles, and others were in business or marketing roles. Each had her own story that she could relay to the students. In addition, we included some of the newer female engineers from the Austin facility to act as guides for the weekend. These women were assigned to specific student groups and helped ensure that the students were in the right place at the right time.

We wanted the Schlumberger guides to be closer in age to the students than perhaps some of the leaders were apt to be.

EVENT

Day 1 - The Schlumberger contingency began meeting on Friday morning to prepare for their roles in the event. The Austin Technology Center personnel department prepared the workshop material prior to the Forum. Two workshops comprised part of the following day's events, and we wanted to be sure that we understood the material and could tailor it to our own experiences. One workshop focused on "Managing Your Career" and discussed the wide variety of opportunities that a technical degree opened up for a graduate. The second workshop described "Interviewing Skills" from both the student and company perspective and talked about how the students needed to get as much out of an interview for their decision-making process as a company wanted to derive for theirs.

Two training consultants worked with the group to review the material they would be delivering the next day and to practice their delivery of the slides. As many of us did not know others on the Schlumberger team, we had a good time meeting each other. We used the slide material as a way to learn about each other and practice our presentation skills.

Friday night, the Forum began in earnest. We had pre-divided the students into groups of 10-12 students. The students would stay with this group throughout the event. We ensured that we had a mix of women from different universities in the different groups. Schlumberger women were assigned to a group and began immediately acting as mentors and catalysts for discussion.

After everyone met their assigned group and ate dinner, our exciting panel discussion commenced. We wanted to have technical women from a wide industry perspective, not just Schlumberger women, involved in the panel. The panel included:

- Leslie Butterfield, CEO TeleDerm Solutions
- Karen Bruett, Director of Marketing and Business Development for Dell Computer Corporation
- Christina Hanger, Vice President of Compaq's Enterprise Supply Chain
- Kathryn Lindauer, Shareholder of Corporate and Securities for Jenkins and Gilchrist
- Clarisse Behar-Molad, of the Association of Women in Computing.

Schlumberger Software Métier Manager Susan Rosenbaum probed into the panelists' backgrounds in order to better understand how each woman achieved her success, what barriers she encountered, and how they simultaneously advanced her jobs and personal life.

The panelists shared a wide range of knowledge. Different life experiences from each participant revealed that there is no one correct way to achieve success as a woman in the technical field today; however, a strong undercurrent of female potential and unlimited capacity was emphasized throughout the evening. Behar-Molad characterized the spirit best when she prompted the students to be the first female to do something that has never been done before. "Be the first. Don't let the absence of a female precedent stop you."

It is interesting to note that the students immediately began peppering the panel with tough questions. We had prepared a set of questions in advance of the Forum in case we needed to "seed" the discussions; however, we quickly discovered that this was not to be a problem! The question and answer session lasted for about an hour and only ended because we told the students that they were going to have to get up at 7:00 the next morning to take the busses to the next day's set of events.

Day 2 - Saturday morning, three buses left the hotel and brought the students to Schlumberger's Austin Technology Center for a full day of workshops, lectures, and discussion. Day two provided a combination of group workshops and guest speakers. For the initial event, students met guest speaker Dottie Gandy, author and Human Resources consultant. Gandy advised the students of the challenges that women face in the workplace today and the importance of rewards and recognition in the workplace.

The groups then split out into their respective workshops. Two Schlumberger women facilitated each workshop group. The workshops were held in various "break out" rooms that had been set up for the event throughout the Schlumberger Austin campus. During the Career Management workshop, the students brainstormed several topics: what they want in a career; what types of employers they are attracted to; where their interests lie; and what obstacles they might face in their career paths. The students were encouraged to share their feelings and experiences and to provide insight into the problems faced by women engineering students today.

Bijan Askami from Bijan International presented the afternoon guest lecture on the topic "Why Women Make Better Leaders." Bijan is currently conducting research for a book on this subject.

Suzanne Richardson, one of the Schlumberger women, had never experienced a forum like this when she was obtaining her engineering degree from UT just eight years ago. "Had a similar event been offered to her," she explained, "it probably would have gotten me thinking about things earlier than I did. It would have been of tremendous value to me at that age."

The second workshop focused on interviewing skills. The workshop facilitators trained the students on interview preparation and techniques for success. Advice included researching the company beforehand and finding key

questions to ask of an employer in return. As an interviewing question example, the students were asked to share one challenging experience that they solved in a creative and unusual way. One participant spoke of teaching a swim class to four-year-olds and how difficult it was to communicate with them. She had to think and act in an entirely different way than normal. Another explained how she started her own sorority because none of the existing ones offered what she was looking for.

One of the interview training sessions was especially poignant. The students began to talk about their accomplishments, and two students said that they did not think they had any. When the group encouraged them to share something, both of their stories were amazing! Both were 1st generation college students; one had immigrated to the US with her baby sister and without her parents. The session served to raise the two students' self esteem and confidence. It's clear that the competition is so stiff in engineering that sometimes the students lose sight of how special they are. The forum really forced them to be proud of themselves and each other.

Each of the workshop break-outs was extremely lively with lots of participation from the students. Several of the panel discussion participants from the previous evening stayed to participate in the Saturday workshops, and they ended up getting pulled into the discussions as much as the students!

At the closing discussion session, Tricia Berry, Regional Director for SWE and Director of the Women in Engineering Program at UT Austin, shared some statistics related to the number of women going into technical and engineering disciplines. The afternoon session was concluded in a round table with interaction between the students and the Schlumberger women.

A private dinner at a local restaurant closed the event, where the students participated in a final team-building activity. Asking the students to 'think out of the box' and to find creative solutions with their teams demonstrated the strength of their communications skills, interaction ability, creative thinking and diversity. After such a long day, it was great to see continued enthusiasm and energy.

FORUM LOGISTICS

The entire event cost Schlumberger roughly \$80,000. This cost does not include the travel costs of the Schlumberger employees. The funding came from the Austin Technology Center's budget; however, for future events, we plan on dividing the cost among the principal Schlumberger locations.

A core team of 4 Schlumberger employees (the authors of this paper) served as the main event organizers. Overall, we spent 2 months of cumulative time to organize the weekend. Planning for the weekend began 4 months in advance.

We are currently organizing the same event to be held in Cambridge, England, targeted at students in Europe and the CIS. We've timed this event likewise in the fall to coincide with typical semester start dates.

CONCLUDING THOUGHTS

The events during the two days were planned to provide an insight into corporate life - arriving in a new location and starting 'work' straight away, working as a team with 'strangers', interaction with senior managers, exposure to both successes and failures, and long hours!

Feedback has been overwhelming, and Schlumberger is working with other organizations to export our format so more women can benefit from similar experiences. One student at the conference told us that she had had reservations about the event before she arrived. She thought it was going to be some sort of "guy bashing weekend," but was pleased to find instead a tight community of strong, smart, accomplished women who were positive about their careers and only wanted more women to know about how great a career in science/technology/engineering could be.

We have continued to send periodic e-mail to the students. We have shared photos from the event on the website and generally kept in touch.

A couple of final comments from the student attendees says it all:

"I enjoyed meeting girls from other schools in engineering. I had a great time sharing woes of being one of the only few girls in engineering classes, of having ideas ignored by fellow male students, and of being assigned grunt work in lab while the "boys" did the technical work. I realized that I was not alone in the struggle to stand up, and that other girls out there felt what I felt."

.... University of California, Berkeley Student

"The panel and speakers and workshops were incredible. I think I needed more advice than I thought. Thank you for an amazing weekend."

..... Rice University student